Telecommunications competitive safeguards for 2013–14

Changes in the prices paid for telecommunications services in Australia 2013–14

February 2015
ACCC telecommunications reports 2013–14

This publication contains two reports:

Report 1  Telecommunications competitive safeguards for 2013–14

Report 2  Changes in the prices paid for telecommunications services in Australia, 2013–14
The Hon. Malcolm Turnbull
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 subsection 151CM(1)(a) of the CCA.

Enclosed are the two reports for the 2013-14 financial year. 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.

Yours sincerely

Michael Schaper
Acting Chairman
### List of shortened forms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>2G</td>
<td>second generation mobile communications</td>
</tr>
<tr>
<td>3G</td>
<td>third generation mobile communications</td>
</tr>
<tr>
<td>4G</td>
<td>fourth generation mobile communications</td>
</tr>
<tr>
<td>ABS</td>
<td>Australian Bureau of Statistics</td>
</tr>
<tr>
<td>ACCAN</td>
<td>Australian Communications Consumer Action Network</td>
</tr>
<tr>
<td>ACCC</td>
<td>Australian Competition and Consumer Commission</td>
</tr>
<tr>
<td>ACL</td>
<td>Australian Consumer Law</td>
</tr>
<tr>
<td>ACMA</td>
<td>Australian Communications and Media Authority</td>
</tr>
<tr>
<td>ADSL</td>
<td>asymmetric digital subscriber line</td>
</tr>
<tr>
<td>AMTA</td>
<td>Australian Mobile Telecommunications Association</td>
</tr>
<tr>
<td>ASIC</td>
<td>Australian Securities and Investments Commission</td>
</tr>
<tr>
<td>BROC</td>
<td>binding rule of conduct</td>
</tr>
<tr>
<td>CAN</td>
<td>customer access network</td>
</tr>
<tr>
<td>CBD</td>
<td>central business district</td>
</tr>
<tr>
<td>CCA</td>
<td>Competition and Consumer Act 2010 (replaced the Trade Practices Act 1974)</td>
</tr>
<tr>
<td>CPI</td>
<td>consumer price index</td>
</tr>
<tr>
<td>CSP</td>
<td>carriage service provider</td>
</tr>
<tr>
<td>DRMT</td>
<td>digital radio multiplex transmission</td>
</tr>
<tr>
<td>DSL</td>
<td>digital subscriber line</td>
</tr>
<tr>
<td>DSLAM</td>
<td>digital subscriber line access multiplexer</td>
</tr>
<tr>
<td>DTCS</td>
<td>domestic transmission capacity service</td>
</tr>
<tr>
<td>ESA</td>
<td>exchange service area</td>
</tr>
<tr>
<td>FAD</td>
<td>final access determination</td>
</tr>
<tr>
<td>FLSM</td>
<td>Fixed Line Services Model</td>
</tr>
<tr>
<td>FOAS</td>
<td>Fixed originating access service</td>
</tr>
<tr>
<td>FTAS</td>
<td>Fixed terminating access service</td>
</tr>
<tr>
<td>FTTP</td>
<td>fibre-to-the-premises</td>
</tr>
<tr>
<td>GB</td>
<td>gigabyte</td>
</tr>
<tr>
<td>GHz</td>
<td>gigahertz</td>
</tr>
<tr>
<td>GST</td>
<td>goods and services tax</td>
</tr>
<tr>
<td>HFC</td>
<td>hybrid fibre coaxial</td>
</tr>
<tr>
<td>ICPEN</td>
<td>International Consumer Protection and Enforcement Network</td>
</tr>
<tr>
<td>IP</td>
<td>internet protocol</td>
</tr>
<tr>
<td>IPTV</td>
<td>internet protocol television</td>
</tr>
<tr>
<td>ISP</td>
<td>internet service provider</td>
</tr>
<tr>
<td>LBAS</td>
<td>local bitstream access service</td>
</tr>
<tr>
<td>LCS</td>
<td>local carriage service</td>
</tr>
<tr>
<td>LSS</td>
<td>line sharing service</td>
</tr>
</tbody>
</table>
Telecommunications competitive safeguards for 2013–14

Report to the Minister for Communications
# Contents

List of shortened forms  iv  
Executive Summary 1  

1  Introduction and overview  
1.1 Promoting competition in telecommunications markets 6  
1.2 The changing telecommunications landscape 9  
1.3 Ensuring compliance with the Competition and Consumer Act 12  

2  Competition in the telecommunications industry 13  
2.1 Consumer trends 13  
2.2 Competition in fixed line markets 19  
2.3 Competition in mobile and wireless markets 28  
2.4 Telecommunications complaints 32  

3  Anti-competitive conduct provisions 35  
3.1 Overview 35  
3.2 Investigations conducted in 2013–14 35  
3.3 Exemption orders from Competition Rule 35  
3.4 Third line forcing notifications 35  
3.5 Authorisation applications 36  

4  Consumer safeguard provisions 37  
4.1 Overview 37  
4.2 ACCC key investigations for 2013–14 37  
4.3 ACCC liaison and engagement activities 39  
4.4 Other market and regulatory developments 41  

5  Monitoring and reporting 42  
5.1 Overview 42  
5.2 Record keeping rules 42  
5.3 Reporting under Telstra’s structural separation undertaking 45  
5.4 Telstra’s retail price control arrangements 45  
5.5 Other activities 46  

6  Access to telecommunications network services 48  
6.1 Overview 48  
6.2 Declared services 48  
6.3 Access determinations 53  
6.4 Binding rules of conduct 54  

7  NBN and superfast networks provisions 58  
7.1 Overview 58  
7.2 Declaration of NBN services 58  
7.3 Dispute resolution arrangements 59  
7.4 Points of interconnection 60  
7.5 Non-discrimination provisions 60  
7.6 Level playing field provisions 61
8 Telstra’s structural separation and other Telecommunications Act provisions
8.1 Overview
8.2 Structural separation of Telstra
8.3 Access to facilities
8.4 Access disputes
8.5 Number portability

9 Radiocommunications Act
9.1 Overview
9.2 Variation of digital radio access undertakings
9.3 Submission to the review of digital radio
9.4 Radiofrequency spectrum

Appendix A: Types of internet access platforms

List of tables
Table 2.1 NBN rollout
Table 2.2 Types of voice service provided over Telstra’s customer access network
Table 2.3 4G mobile network developments
Table 2.4 TIO complaints received by service type
Table 5.1 Current record keeping rules
Table 6.1 Declared services
Table 8.1 ACCC accepted rectification proposals

List of figures
Figure 2.1 Comparison of mobile and landline services in operation
Figure 2.2 Comparison of mobile and landline service usage
Figure 2.3 Internet subscribers by access technology
Figure 2.4 Volume of data downloaded by access connection type
Figure 2.5 Telstra and access seeker DSLAM coverage
Figure 2.6 Retail fixed voice service market shares
Figure 2.7 Retail fixed broadband market shares
Figure 2.8 Access seekers’ ULLS and LSS SIOs as a percentage of total DSL SIOs
Figure 2.9 Retail market share for mobile handset services
Figure 2.10 Retail market share for wireless broadband services
Figure 2.11 Number of complaints received by TIO
Executive Summary

It has been a pivotal year in the telecommunications industry. Competition continues to deliver benefits to consumers through lower retail prices, more consumer choice at the retail and infrastructure level, more innovation and greater investment in networks and technology. The industry continues to strive to meet changing consumer preferences through investment and innovation, particularly in the mobile sector.

A number of significant structural changes and regulatory reviews are also underway, which will influence the future telecommunications landscape within Australia.

The Australian Competition and Consumer Commission’s (ACCC) report on competitive safeguards outlines the benefits of increased competition in the sector and examines some of the key regulatory decisions made during the year to protect and promote the long-term interests of end-users.

Developments in the telecommunications sector

Changes to the structure of the telecommunications industry

Technological developments, changes in consumer demand and, most significantly, policy-induced structural change, continue to impact the telecommunications industry. The structure of the telecommunications industry and the role of the National Broadband Network (NBN) will have a fundamental influence on the delivery of telecommunications services for many years to come.

The ACCC welcomes the Australian Government’s review of the future structure and regulation of the telecommunications industry. The Independent Cost–Benefit Analysis and Review of Regulation (the Vertigan Review) has been undertaken at an important time for the communications industry. Structural reform is necessary to foster competition in the sector. As a long-term advocate of infrastructure-based competition, the ACCC supports the Vertigan Review’s recommendation that infrastructure competition be the guiding policy for the delivery of services in the sector.

We believe that economically efficient infrastructure-based competition is likely to be in the long-term interests of end-users. Competitive markets at both the infrastructure and retail levels bring economic efficiencies, investment, innovation and more consumer choice. However, a pro-competitive market structure is dependent on achieving the structural reform that is underway within the sector. The ACCC considers that the key aspects of achieving structural reform that will promote competition are: a wholesale-only NBN subject to effective regulation; the structural separation of Telstra; and the imposition of wholesale-only open access requirements on all other monopoly providers of fixed line telecommunications services. These settings will encourage robust retail competition and promote overall efficiency in the market.

Consumers continue to benefit from competition

Consumers are the main beneficiaries from competition in the telecommunications sector. Since the industry was opened to competition in the 1990s, we have seen dramatic reductions in the price of telecommunications services, significant infrastructure investment to improve the quality and coverage of services and technological innovation.
Access regulation has a central role in promoting competition in telecommunications markets, both at the infrastructure and retail levels. In particular, opening access to Telstra’s fixed line services, including the unbundling of Telstra’s local loop, has been pivotal for the development of competition in retail voice and broadband markets.

The ACCC’s approach to regulated pricing has assisted the take-up of the unconditioned local loop service, investment in digital subscriber line access multiplexers (DSLAMs) by retail service providers and innovation by access seekers, such as the launch of ADSL2+ services. Access regulation helped to drive competition between broadband suppliers and led to a significant take-up of ADSL services by consumers from the late 2000s.

As telecommunications companies compete to win and keep customers, consumers benefit from lower prices, greater choice of services and service providers, and investment in networks. Since 1997–98 the average real price of fixed and mobile voice services have fallen by around 50 per cent. Broadband customers are benefiting from larger data allowances, faster speeds and lower prices. The effective price per gigabyte (GB) has fallen from approximately $30/GB in 2007 to less than $1/GB today.¹

**Consumer trends in 2013–14**

The three key consumer trends to emerge this year are:

(i) **Consumers used their mobile phones more intensively**

Mobile handset downloads in the June 2014 quarter were double the levels in the same quarter in 2013.² Further, more consumers relied on their mobile phone for voice calls, with a quarter of the adult population owning a mobile phone but no home landline telephone.

(ii) **Mobile and wireless subscriptions started to reach saturation levels**

Despite the increase in usage, mobile and wireless subscriptions appear to be reaching saturation levels. After experiencing very strong growth until 2012, wireless broadband subscriptions fell by 3 per cent in 2013–14.³ The number of mobile phone subscribers continued to plateau, increasing by less than 1 per cent during the year.

(iii) **Consumers continued to download more data**

Consumers downloaded significantly more data during the year across all platforms. Fixed line broadband continued to account for 93 per cent of all data downloaded, the same as last year.⁴ This suggests that consumers use different services for different activities, preferring fixed line broadband for data-intensive activities. The increase in data downloaded is also consistent with evidence that Australians are embracing online content, such as streaming movies, music and on-demand television services.

---


³ Ibid.

⁴ Ibid.
Competitive developments in 2013–14

The key competitive developments during the year include:

(i) **Fixed line investment focused on the NBN**

NBN deployment and take-up increased during the year. As at 30 June 2014, 604,470 premises had been passed by the NBN and 210,628 premises had been activated. As a result, NBN plans have become more commonplace in the market. In contrast, investment in the legacy fixed line network was limited, with geographic DSLAM expansion steady at about 1 per cent over the year. The slowing of DSLAM investment is likely to continue in the transition to the NBN.

(ii) **Telstra faced more competition in fixed line markets**

More competition in fixed line markets saw Telstra’s share of the fixed voice market fall from 63 per cent to 61 per cent. Fixed broadband market shares remained relatively stable, with Telstra and Optus losing slightly to iiNet and other smaller players. Telstra continued to have the largest share of subscribers in regional and rural areas, reflecting its more geographically extensive DSLAM deployments.

Access to Telstra’s unconditioned local loop service (ULLS) continues to allow bundling of voice and broadband services and more choice for consumers.

(iii) **Demand for data was a key driver in mobile and wireless markets**

Investment in 4G mobile networks remained strong as mobile network operators respond to consumer demand for high quality mobile and wireless data services. Telstra’s position in both mobile and wireless broadband markets improved further during the year, with Telstra increasing its market share in both areas.

(iv) **Price competition picking up**

After remaining subdued for the past few years, price competition picked up during the year. Consumers experienced the largest decline in the average real prices paid for telecommunications services for three years.

In the mobiles market, some operators made changes to retail offers to help customers avoid bill shock and to make offers easier to understand. In the retail broadband market, there was continued growth in download allowances and unlimited plans to meet growing consumer demand for data. NBN plans continued to emerge, and some were priced more competitively than comparable DSL plans.

ACCC activities in 2013–14

Our activities in the telecommunications sector

The ACCC continues to focus its activities on safeguarding competition through:

- ensuring compliance with competition and consumer protection laws
- regulating access to certain telecommunications services under Part XIC of the Competition and Consumer Act 2010 (CCA)
- establishing an effective regulatory framework for the NBN
- promoting a competitive industry structure and a smooth migration to the NBN, and
- engaging with industry and consumers.

---

Protecting consumers

During the year we conducted 17 major investigations into potential contraventions of consumer protection laws in the telecommunications sector. This resulted in action against several telecommunications providers for misleading consumers, breaching the unfair contract provisions and acting unconscionably, including the High Court decision that TPG Internet Pty Limited’s advertisements were misleading.

Regulating access to telecommunications network infrastructure

Opening access to wholesale ‘bottleneck’ infrastructure has been central to promoting competition in the telecommunications sector. Reducing the barriers for service providers to enter and compete in downstream markets delivers benefits to Australian consumers through more choice, lower prices and increased investment. Without regulation, it is unlikely that market-based arrangements would achieve the same outcomes, particularly in rural and regional areas.

Access decisions in 2013–14

We concluded three important inquiries during the year about whether to continue to regulate declared fixed line and mobile services. Our decision to continue regulating these services will support continuing competition and efficient investment. In 2014–15 we will be setting regulated prices for these services.

Fixed line services

In the fixed service review, we decided to extend the declaration of the six fixed line services for a further five year period until 31 July 2019 and removed provisions exempting wholesale line rental and local carriage services in CBD areas from regulation.

Domestic transmission capacity service

We also decided to extend regulation of the domestic transmission capacity service (DTCS) for a further five years until 31 March 2019. During the inquiry, we adopted a more comprehensive methodology to assess the state of competition on transmission routes to determine which routes should be regulated. We removed regulation from 112 metropolitan exchange serving areas and eight regional routes where competition was found to be effective. We also re-regulated three regional routes which did not meet the revised competition criteria and ‘notionally’ re-regulated seven regional exchange serving areas based on definitional changes to some regional centres and the application of the revised competition criteria.

Mobile terminating access service

In the mobile services area, we decided to continue to regulate mobile voice termination for a further five years and to regulate SMS termination for the first time, also for five years. We expect that regulation will reduce SMS termination rates, which should lead to lower SMS prices for some consumers.

Establishing the regulatory framework for the NBN

In a landmark decision, we accepted a special access undertaking (SAU) from NBN Co in December 2013. The SAU is a key part of a long-term framework for prices and other terms of service supplied to access seekers over the NBN until 2040. Acceptance of the SAU was an important milestone in establishing the regulatory framework for the NBN.

Most of the commitments in the SAU are technology neutral and will apply even with a significant change to the composition of the network.
Promoting a competitive industry structure

We are continuing to implement a range of measures to safeguard competition and protect consumers during the migration to the NBN. During the year we monitored Telstra’s compliance with its structural separation undertaking and migration plan. We also consented to revised processes to disconnect customers from the copper network developed by Telstra and NBN Co to minimise the risk of service disruption to end-users in the first NBN rollout areas.

A number of challenges will inevitably arise in a migration of this magnitude. We are working with government, industry and consumer groups to develop a robust and effective long-term migration model that safeguards consumer interests and competition.

Engaging with industry and consumers

We have continued to focus on our engagement with industry, other regulators and consumer groups in the telecommunications sector throughout the year. Some of our key engagement activities included:

• developing consumer education initiatives that help consumers make more informed decisions about their services
• working with providers to ensure broadband ‘speed’ claims are justifiable
• working with overseas regulators in an international sweep of ‘apps’ targeted to children and which encourage in-app purchases
• liaising with stakeholders in relation to our key regulatory decisions, and
• participation in consultative committees and industry working groups to address competition and consumer issues.

Report outline

More information on key developments during the year is available in Chapter 1. Chapter 2 examines competition in Australian telecommunications markets and includes information on consumer trends, infrastructure investment, market concentration and price changes. We also look at the types of matters that are concerning consumers.

Chapters 3 to 9 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 key investigations and court cases.
• 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.
• Chapter 9 outlines our responsibilities under the Radiocommunications Act 1992.
1 Introduction and overview

The ACCC is responsible for the economic regulation of the communications sector, including telecommunications, the National Broadband Network (NBN), broadcasting and content sectors.

We are also responsible for safeguarding competition within the sector, through a range of activities that include: monitoring competition and market developments in the sector; investigating anti-competitive conduct and alleged breaches of the Australian Consumer Law (ACL); assessing telecommunications mergers and authorisations; and protecting consumers through our education and consumer engagement activities.

This report examines the competitive safeguards within the Australian telecommunications industry for the 2013-14 financial year. We have also included significant developments between July and December 2014.

1.1 Promoting competition in telecommunications markets

Since the telecommunications industry was opened to competition in the 1990s, end-users have benefited from greater economic efficiencies, investment in networks, innovation and more tangible outcomes, such as lower prices and more consumer choice. The telecommunications industry is a complex and highly dynamic industry with a number of different network elements. Some parts of the sector, with lower costs of deployment and relatively dense customer distributions, can support multiple providers delivering services over competing infrastructure. In these areas, the market can deliver the benefits of competition to end-users.

However, many telecommunications networks have natural monopoly characteristics, making it inefficient to have multiple competing providers. Where this is the case, effective regulation remains essential to promote competition and deliver outcomes that promote the interests of end-users.

1.1.1 Competition in fixed line markets

Access regulation has promoted competition in fixed line markets

Access regulation has been fundamental to the development of competition in fixed line markets, which exhibit the natural monopoly characteristics that would otherwise constrain competition. The ACCC’s decisions to open up access to Telstra’s fixed line networks has reduced the barriers for new entrants, allowing them to compete in the fixed voice and broadband markets.

In particular, the ACCC’s decisions to regulate the unconditioned local loop service, and introduce lower regulated prices, have had a significant role in driving investment and innovation in the fixed line sector. The ACCC’s decisions established the incentives for access seekers to invest in and deploy their own network infrastructure where economically viable. Overall, about 20 per cent of all fixed line services are now provided using unbundled lines.

---

6 Subsection 151CL(1) of the Competition and Consumer Act 2010.
Consumers are now paying significantly less for fixed voice calls, with the average price falling by about 50 per cent in real terms since access regulation was introduced. In addition, broadband customers are benefiting from larger data allowances, faster speeds and lower prices. The effective price per gigabyte (GB) for fixed broadband services has fallen from approximately $30/GB in 2007 to less than $1/GB today.\(^7\)

**Competitive developments in 2013–14**

Competitive fixed line markets continued to deliver benefits to consumers in 2013–14. The average prices paid for fixed voice services fell by about 5 per cent in real terms over the year, and the prices paid for DSL broadband services fell by 2 per cent. There was also further growth in download allowances and unlimited plans for fixed broadband services to meet growing consumer demand for data. NBN plans became more readily available during the year, with a larger number of retail service providers releasing competitive NBN offers.

**Reviewing regulation in fixed line markets**

During the year we undertook an extensive inquiry to determine which fixed line services should continue to be regulated. We decided to extend the declaration of all six fixed line services for a further five years. In reaching this decision, we changed the scope of regulation to ensure we only regulate where it is necessary to promote competition. In our final decision, we also clarified that resale voice services provided using the NBN are not regulated, but decided to regulate resale voice services supplied in CBD areas where infrastructure-based competition has proved ineffective.

**Setting regulated terms and conditions of access**

We also commenced a public inquiry to set both price and non-price terms of access to the declared fixed line services in final access determinations. There are several complex issues to be considered during this inquiry, including the treatment of declining demand. Demand for Telstra’s fixed line services is expected to decline in the next regulatory period due to the migration of customers to the NBN, a loss of market share to access seekers, and the take-up of mobile technologies. The ACCC will need to consider the extent to which Telstra and access seekers should bear the impacts of declining demand, and whether different sources of declining demand should be accounted for in different ways. The ACCC expects to make a final decision on these issues in mid-2015.

**Importance of fixed line regulation during the NBN transition**

Regulation of Telstra’s fixed line services will remain an important priority for the ACCC during the transition to the NBN. This is because Telstra is either the only provider, or has significant market power in the wholesale markets for network access services, resale services and interconnection services associated with the copper network. While the NBN migration has commenced, most consumers will remain on the copper network for some time. It is important that we continue to regulate the fixed line services until the NBN is further progressed.

---

1.1.2 Competition in transmission markets

Promoting competition in transmission markets

Competition in transmission markets has developed differently to fixed line competition, with infrastructure-based competition developing in some areas but not others. Competition has emerged on particular geographic routes and in some metropolitan areas. However, in other areas, particularly rural and regional areas where it is not economically efficient to duplicate infrastructure, competition has not been as strong. To address this, the ACCC regulates access to transmission services in non-competitive areas and has withdrawn regulation where effective competition has emerged.

Regulation of these services has been vital for competitors to reach consumers in rural and regional areas, and to compete in downstream markets. Where competition has emerged, we have seen a significant fall in commercial transmission prices, a wider range of transmission products being offered, higher data rate services, and quality of service becoming a differentiating factor.

Reviewing regulation in transmission markets

During the year we reviewed the declaration of the domestic transmission capacity service (DTCS), deciding to vary and extend the declaration for five years. The DTCS is a critical input for the supply of other telecommunications services that are delivered to consumers, including services provided over both fixed and mobile networks. The DTCS will continue to be an essential input for retail broadband services during and following the transition to the NBN.

In deciding to continue regulating the DTCS, we considered that maintaining regulation where there is insufficient effective competition is important to ensure those who wish to access the declared DTCS can do so at regulated rates. After assessing competition on all DTCS routes, we removed regulation from over 100 exchange serving areas and routes where competition was found to be effective.

After concluding the declaration review, the ACCC began an access determination inquiry for the declared DTCS. This inquiry is considering both price and non-price terms that should apply to access to the service. Following consultation with stakeholders, the ACCC reached the view that continuing to use a domestic benchmarking approach is appropriate for setting regulated DTCS prices in the final access determination. The ACCC will engage closely with stakeholders as the benchmarking model is developed and expects to make a final decision in mid-2015.

1.1.3 Competition in mobile markets

Promoting competition in mobile markets

Infrastructure-based competition has generally been strong in the mobile market, particularly in more densely populated areas. Competition between the three mobile network operators (MNOs) has created incentives for each to expand their mobile network coverage (each now providing services to over 97 per cent of the population), upgrade their network technology and offer more attractive plans to consumers.

Regulation of the mobile terminating access service (MTAS) has also contributed to the development of competition in mobile and fixed voice markets. The MTAS is a wholesale service that one mobile network operator provides to another network operator to carry or connect a call on its network. The ACCC regulates this service as each MNO has a monopoly over the MTAS on their network. This regulation has helped to ensure that consumers can call any other person in Australia, regardless of the network they use, and that prices for telecommunications service remain competitive. Since the MTAS was first regulated in 1997,
the average retail price of calls from fixed line phones to mobiles has fallen by 67 per cent in real terms. Prices for mobile voice services have also fallen by about 52 per cent during this time.\footnote{ACCC, Changes in the prices paid for telecommunications services 2013–14, www.accc.gov.au.}

However, competition between MNOs and their networks has been more pronounced in high density areas (such as metropolitan centres) than it has been in less densely populated regional, rural and remote areas. In these areas, duplicating mobile networks is unlikely to be efficient and infrastructure-based competition may not be feasible.

We acknowledge that there are a number of developments that will help to address these issues in the future. The Australian Government is currently proposing to improve mobile coverage and competition in underserved regional, rural and remote areas through its Mobile Blackspots Program. Further, we anticipate that our regulation of transmission services will help to improve mobile competition in rural and regional areas by reducing the costs of providing services in these areas.

**Competitive developments in 2013–14**

Data services were the focus of competition in mobile markets in 2013–14 as consumer demand for mobile data continued to grow. Telstra increased its retail market share for mobile and wireless products again this year, seeking to differentiate itself on the basis of network coverage and performance. All network operators invested significantly in 4G networks to meet consumer demand for data. Prices paid for mobile services fell 2 per cent during the year.

**Reviewing regulation in mobile markets**

During the year, the ACCC concluded its inquiry into the declaration of the MTAS. We decided to regulate mobile voice termination for a further five years and to regulate SMS termination for the first time, also for five years. We were concerned that MNOs have been able to keep wholesale SMS termination rates significantly above cost, and that this may have had a negative impact on competition in wholesale and retail markets. We expect that regulation will reduce SMS termination rates, which should lead to lower SMS prices for some consumers.

During the year we also commenced an access determination inquiry for the declared MTAS, which is considering both the price and non-price terms that should apply to access the MTAS. After consulting with stakeholders, the ACCC decided to set voice termination prices using international benchmarking and SMS termination prices as a fraction of the mobile voice termination prices. The ACCC expects to make a final decision in mid-2015.

### 1.2 The changing telecommunications landscape

The telecommunications industry is in a period of significant transition, driven by policy-induced structural change and regulatory reviews. These developments are expected to fundamentally change the telecommunications landscape and the competitive environment.

#### 1.2.1 Structural reform and the NBN

The structure of the telecommunications industry and the role of the NBN will have a fundamental influence on the delivery of telecommunications services and the broader Australian economy for many years to come.
Changes to NBN policy

In April 2014 the government issued NBN Co with a revised Statement of Expectations regarding the delivery of the NBN. The government decided that the NBN rollout should transition from a primarily fibre-to-the-premises (FTTP) model to the ‘optimised multi-technology mix’ model recommended in the NBN Strategic Review in December 2013.

The government, NBN Co and Telstra signed revised commercial agreements on 14 December 2014 to enable the rollout of the government's multi-technology mix NBN. Under the agreements, NBN Co will progressively take ownership of many parts of Telstra's copper and hybrid fibre coaxial (HFC) cable network and use this infrastructure in the NBN.

The ACCC was regularly briefed on a confidential basis as the renegotiation progressed, and has provided its views on competition and consumer issues. The ACCC has not been asked to approve the revised agreements. Rather, the government has authorised the key agreements, which is broadly similar to the approach that the previous government took in respect to the original agreements. The ACCC expects to assess variations to the Migration Plan that reflect the changes to the commercial agreements in accordance with the Principles made by the Minister in early 2015. The ACCC will continue to monitor Telstra's compliance with the Migration Plan. The government has also asked the ACCC to inquire into and advise upon the information that NBN Co should release to all retail service providers (including Telstra) on NBN Co's progress in building the NBN and making it ready for service. Further information about the role of the ACCC in relation to the Migration Plan is set out in Chapter 8.

Ensuring that structural reform delivers competitive outcomes

The current structural reform is intended to address many of the long-standing competition concerns in the telecommunications sector. We consider that the key elements of a competitive industry structure that will benefit end-users must include:

- a wholesale NBN that is subject to effective regulation
- the structural separation of Telstra, and
- the imposition of wholesale-only open access requirements on all other monopoly providers of fixed line telecommunications services.

The wholesale-only and open access requirements are an essential component of structural reform because they reduce the incentives for NBN Co to favour a downstream retail service provider(s) and/or to discriminate between downstream rivals.

Migrating to the NBN

Introducing a wholesale-only NBN should result in structural reform that results in long lasting competition benefits. However, the ACCC recognises that there will be challenges along the way for all stakeholders. To assist with these challenges we:

- contributed to the NBN regulatory recourse debate
- pressed NBN Co for greater transparency with retail service providers in accordance with the government's Statement of Expectations
- advocated for reprieves from the initial managed disconnection dates in the first rollout areas and revisions to the cease sale rules to ensure consumers were not left without a service, and
- worked with other agencies to address consumer issues.

We will continue to work with stakeholders to protect competition and consumers during the migration to the NBN.
**NBN special access undertaking**

In December 2013 the ACCC accepted the special access undertaking lodged by NBN Co. The undertaking sets the prices and other terms and conditions for access to the NBN and provides a broad framework to facilitate effective engagement between NBN Co and access seekers. It is a long-term framework that sets in place the principles for NBN regulation until 2040. Most of the commitments in the undertaking are technology neutral and will apply even with a significant change to the composition of the network.

**Establishing future regulatory settings**

The ACCC has a key role in embedding the structural changes within the sector, ensuring that the transition to the NBN delivers efficient and competitive outcomes and that regulation of legacy services continues to promote competition during the transition. We also have a role in ensuring consumers are protected during the migration to the NBN.

Regulatory oversight is essential as the NBN is rolled out and consumers are progressively migrated from their traditional copper line service to the NBN. We will continue to work towards a revised special access undertaking for other access services, improvements to the migration plan to ensure that it is suitable for a multi-technology mix NBN model, and maintaining our migration assurance oversight roles.

**1.2.2 Reviewing the regulatory framework**

There are several important policy processes underway that will influence future regulatory arrangements. In particular, the Independent Cost-Benefit Analysis and Review of Regulation (Vertigan Review) and the Competition Policy Review (Harper Review) are examining the regulatory settings within the sector and the broader Australian economy. These reviews may have significant implications for the regulation of the telecommunications industry and competition law and policy in Australia.

**The Vertigan Review**

The Vertigan Review examined the future regulatory and policy framework for the communications industry. The ACCC’s submissions to the review focused on the dynamic efficiency that is driven by infrastructure-based competition, which is likely to promote the long-term interests of end-users. We also noted that where efficient network duplication can occur, competition between networks can drive product differentiation, innovation and timely investment.

The ACCC welcomes the Vertigan Review’s recommendation that infrastructure-based competition be the guiding policy for the delivery of services in the sector. We consider that NBN Co should put in place arrangements that will allow for future separation of NBN Co at an appropriate time. We also support the review’s recommendations for promoting a pro-competitive industry structure and an effective regulatory framework.

We consider that the telecommunications regulatory framework must be capable of ensuring continued competitive access to existing networks, a smooth transition process as the NBN is deployed and an effective regulatory framework for the NBN as a monopoly wholesale provider.

**The Harper Review**

The Harper Review is the first comprehensive review of Australia’s competition laws and policy in over 20 years. The review is examining not only the current laws but the broader competition framework to increase productivity and efficiency in markets, drive benefits to ease cost of living pressures and raise living standards. This review will have implications for competition across the broader Australian economy.
Removing red tape

Periodic reviews of regulation are necessary to identify redundant regulations and to streamline processes. We contributed to the government’s deregulation agenda by removing some ACCC regulatory requirements, for example some record keeping rules that were no longer considered to be necessary or efficient. We also contributed by providing submissions to external reviews.

While targeted, proportional and effective regulation plays an important role in promoting competition and protecting consumers, we recognise that reviewing the effectiveness of regulation is important to reduce the regulatory burden.

1.3 Ensuring compliance with the Competition and Consumer Act

While a competitive market can deliver benefits to consumers, the ACCC also works to protect consumers by investigating and taking action against potential breaches of the Australian Consumer Law (ACL). Consumer protection in the telecommunications sector remained a priority for the ACCC’s compliance and enforcement work during the reporting period.

Some important enforcement outcomes during the reporting period include:

- A High Court ruling against TPG Internet Pty Limited which reinforced the importance of accurately stating the full cost of bundled plans to consumers in headline advertising.
- A court enforceable undertaking from Apple Pty Limited, seeking to ensure Apple provides remedies equivalent to those in the consumer guarantee provisions of the ACL at any time within 24 months of purchase (and for some products, beyond 24 months).
- The first case pursued by the ACCC exclusively about the unfair contract terms provisions of the ACL, where the Federal Court found that a number of clauses in Bytecard Pty Limited’s standard form consumer contract were unfair.
- A Federal Court order against Startel Communications Pty Limited for misleading indigenous consumers about their ACL rights when cold calling consumers to sell mobile phone plans.
- A Federal Court order against Zen Telecom Pty Limited regarding its unsolicited telemarketing practices. Zen Telecom engaged in misleading conduct and made false and misleading representations that it was acting on behalf of Telstra or a business or company associated with Telstra, when it did not have any such affiliation.

We conducted 17 major ACL investigations in the telecommunications sector this year. These actions are important to protect consumers and to also prevent harm to competitors who abide by the law. We will continue to investigate and take action against potential breaches of the ACL where we consider action is warranted, as well as focusing on consumer issues in the migration to the NBN.

We also investigate and take action against potential anti-competitive conduct in the telecommunications sector in accordance with the telecommunications-specific provisions (Part XIB) and general provisions (Part IV) of the CCA. We undertook one investigation into alleged anti-competitive conduct in the telecommunications sector during the year.
2 Competition in the telecommunications industry

This chapter outlines competitive developments in the telecommunications industry in 2013–14. We examine consumer trends, infrastructure investment, market concentration and price changes to assess the state of competition. We also look at the types of matters that are concerning consumers.

Competition continued to develop during 2013–14. For example, price competition started to pick up after remaining subdued for the past few years. Real prices for fixed line and mobile voice services have now halved since competition was introduced in 1997–98.  

Market developments discussed in this chapter include:

• consumer trends (section 2.1)
• competitive developments in fixed line markets (section 2.2)
• competitive developments in mobile and wireless markets (section 2.3) and
• telecommunications complaints (section 2.4).

2.1 Consumer trends

Key points

• Most consumers use a diverse range of services to meet their different communications needs. Mobiles remain the most popular communication device for voice services and a quarter of adult Australian mobile users now have no landline phone at home.
• Consumers continue to download more data across all platforms. The volume of data downloaded using mobile handsets doubled this year.
• Fixed line broadband was the preferred platform for data-intensive activities, accounting for 93 per cent of all data downloaded.
• The use of online content keeps growing, with 44 per cent of the adult population streaming movies, music and on-demand TV and reading digital newspapers as at June 2014.

2.1.1 Mobile phones are the preferred device for voice calls

As at June 2014 mobile phone services in operation (SIOs) were 2.5 times higher than the number of fixed line voice connections.  

Figure 2.1 shows a comparison of mobile and landline services in operation from June 2008 to June 2014. It shows that mobile phone SIOs increased slightly during the year, while fixed line telephone subscriptions continued the downward trend observed since 2005.

---

11 Australian Communications and Media Authority, Communications Reports from 2007–08 to 2013–14.
Telecommunications competitive safeguards for 2013–14

Figure 2.1 Comparison of mobile and landline services in operation

Source: ACMA Communications Reports and ABS Internet Activity Australia (8153.0).

Some consumers are switching off their landline telephones

The number of consumers relying solely on a mobile phone keeps growing. The Australian Communications and Media Authority (ACMA) estimated that the number of adult Australians with a mobile phone and no landline telephone at home increased 33 per cent in the year, reaching a quarter of the adult population. This trend is closely related to consumers’ age. More than half of the mobile-only consumers were aged between 25 and 34, whereas only 7 per cent were aged over 65.¹²

For most consumers, mobile services continue to complement fixed line telephone services, rather than be a complete substitute. Some consumers are hesitant to go ‘mobile-only’ because of higher mobile charges or concerns about the reliability and coverage of mobile networks. Further, some pricing features of fixed line services, such as the untimed local call feature, are unlikely to be replicated by mobile services.

Consumers are using mobiles for more calls

Mobile phones are being used for a greater proportion of voice calls. Figure 2.2 shows the continuing shift from landline telephones to mobile phones to make voice calls.

Communications services are complementary for most consumers

The total number of call minutes has declined in recent years, suggesting that consumers are also using alternative technologies to communicate.\(^\text{13}\) While mobile phones are the most popular (used by 93 per cent of Australian adults for voice calls) other services such as email, text messaging and fixed line telephone calls are also used by the majority of consumers. In the six months to May 2014, 63 per cent of consumers used five or more separate communications services to meet their communications needs.\(^\text{14}\) The use of over-the-top voice over internet protocol (VoIP) services is also growing. According to the ACMA, the number of VoIP users grew 6 per cent during the year. In particular, there was strong growth in mobile VoIP usage with the number of VoIP users via smartphones and tablets increasing 41 per cent and 48 per cent respectively over the year.\(^\text{15}\)

Consumers are upgrading their mobiles

The growth of mobile subscriptions has been slowing in recent years and declined marginally in 2013−14. This suggests that mobile subscriptions are reaching saturation levels.

Despite this trend, mobile handsets with internet access increased 5 per cent during the year, reaching 20.6 million at June 2014.\(^\text{16}\) This indicates that consumers are upgrading their mobile phones to internet-enabled devices. According to the ACMA, 74 per cent of adult Australians used smartphones as at May 2014, compared to 64 per cent in May 2013. Further, the proportion of adult Australians using their mobile phone to access the internet grew 8 percentage points in the year to May 2014, reaching 70 per cent of the adult population.

---

\(^\text{13}\) Excluding traffic via VoIP handsets which is already accounted for in ‘fixed line originating’ traffic figures.

\(^\text{14}\) Australian Communications and Media Authority, Communications Report 2013−14, p. 44.

\(^\text{15}\) Australian Communications and Media Authority, Communications Report 2013−14, p. 15.

\(^\text{16}\) Australian Bureau of Statistics, Internet Activity Australia (8153.0), June 2014.
2.1.2 Consumers use multiple internet access technologies

While many consumers now have access to the internet via their mobile handset, other forms of internet access remain important. As at June 2014 there were 12.48 million internet subscriptions using other fixed line and wireless technologies.

Mobile wireless broadband subscriptions reach saturation

Mobile wireless continues to lead internet access with 48 per cent of the total subscriptions as at June 2014. However, the growth of mobile wireless subscriptions has been slowing in recent years and declined for the first time in 2013–14, with a fall of 3 per cent. This suggests that mobile wireless broadband subscriptions have reached saturation levels.

Figure 2.3 shows the number of internet subscribers by access technology, including mobile wireless (excluding mobile handsets), DSL, fibre, dial-up and other access technologies. The other category includes hybrid fibre-coaxial (HFC), satellite and fixed wireless services.

Figure 2.3 Internet subscribers by access technology

![Bar chart showing internet subscribers by access technology from June 2010 to June 2014.]

Source: Australian Bureau of Statistics, Internet Activity Australia (8153.0), June 2014.

DSL remains the second most common technology to access the internet with 41 per cent of total subscriptions. DSL was the preferred method of internet access until 2010. Since 2011, DSL subscriptions have stabilised at around 40 per cent of all internet subscriptions.

Fibre subscriptions are the fastest growing access technology

Fibre subscriptions grew 77 per cent in the year to June 2014, driven by the take up of NBN services. The number of activated NBN fibre internet connections increased 415 per cent in brownfield areas during the year and 249 per cent in greenfield areas. In total, there

---

17 Mobile wireless broadband includes services provided via a datacard, dongle, USB modem or tablet SIM card and excludes internet access via smartphones.
18 Australian Bureau of Statistics, Internet Activity Australia (8153.0), June 2014.
19 Australian Bureau of Statistics, Internet Activity Australia (8153.0), June 2014.
20 Australian Communications and Media Authority, Communications Report 2013–14, p. 23.
were 151,000 premises connected to the NBN via fibre as at 30 June 2014. Although fibre subscriptions have been the fastest growing over the last 12 months, fibre still represents less than 2 per cent of the 12.48 million internet connections existing at June 2014.\textsuperscript{21}

### 2.1.3 Data downloads continue to rise

Australians continue to download increasing amounts of data across all internet platforms. The volume of data downloaded via fixed line broadband was 53 per cent higher in the June 2014 quarter compared to the same quarter in 2013.\textsuperscript{22} The volume of data downloaded over wireless broadband increased 20 per cent in the same period.\textsuperscript{23}

**Data downloaded via mobile handsets doubled during the year**

Mobile handset downloads exhibited the highest growth with a two-fold increase, two years in a row. This is consistent with the rapid take-up of 3G and 4G smartphones, the expansion of 4G networks and consumers using their mobiles for a wider variety of activities.\textsuperscript{24}

One example of a change in consumer behaviour is an increase in the use of mobile commerce, or m-commerce. The ACMA estimated that 3.4 million Australians used transactional m-commerce during December 2013. This includes activities like buying goods or paying bills online using a mobile phone. Further, nearly 4 million adults used their handset for non-transactional activities, such as checking account balances or researching products.\textsuperscript{25} Consumers are also continuing to use their mobiles more intensively for social networking, entertainment and other internet browsing activities.

**Mobile and fixed line internet services are complementary**

Although data downloads from mobile phones are rising rapidly, fixed connections are still the most used platform for data intensive purposes. Figure 2.4 shows the volume of data downloaded using different access connection types. Fixed line broadband accounted for 93 per cent of the total volume of data downloaded.\textsuperscript{26}


\textsuperscript{22} Australian Bureau of Statistics, *Internet Activity Australia (8153.0)*, June 2014.

\textsuperscript{23} Wireless broadband includes satellite, fixed wireless and mobile wireless excluding handsets.

\textsuperscript{24} Australian Communications and Media Authority, *Communications Report 2013−14*, p. 5.


\textsuperscript{26} Australian Bureau of Statistics, *Internet Activity Australia (8153.0)*, June 2014.
The strong growth observed in both fixed and mobile data usage suggests that mobile broadband and fixed broadband are complementary services, with consumers using alternative platforms and devices for different purposes. While mobile broadband services offer flexibility, they can be inferior to fixed broadband services in terms of price and quality, particularly for data-intensive applications. For this reason, the majority of data intensive activities are still carried out over fixed connections.\textsuperscript{27}

\subsection{Consumers are accessing more online content}

During 2013–14 Australians continued to access more online content. According to the ACMA, participation in streaming activities grew 21 per cent in the five years to June 2014. As at June 2014 an estimated 44 per cent of the adult population were streaming music, movies or TV shows.\textsuperscript{28}

Similarly, the way consumers are viewing TV content is changing with growth in the use of catch-up TV, on-demand movies and subscriptions to internet TV. The ACMA estimates that almost 7 million Australians used catch-up TV at least once in the six months to May 2014, over 2 million watched video on-demand and about 1.4 million subscribed to commercial internet TV (IPTV).\textsuperscript{29}

Australians are also increasingly accessing online news through digital versions of newspapers, news-based websites or applications that compile news feeds. As at May 2014, 66 per cent of Australians accessed news online and 11 per cent had a paid subscription to an online news service.\textsuperscript{30}

This change in the way consumers access content is contributing to the increase in data downloaded and the growing consumer demand for plans with larger data allowances and faster download speeds.

\textsuperscript{27} ACCC, Public inquiry into the fixed line services declarations, Final Report, April 2014, p. 16.
\textsuperscript{28} Australian Communications and Media Authority, Communications Report 2013–14, pp. 41–42.
\textsuperscript{29} Australian Communications and Media Authority, Communications Report 2013–14, p. 42.
\textsuperscript{30} Australian Communications and Media Authority, Communications Report 2013–14, p. 42.
2.2 Competition in fixed line markets

Key points
- The transition from Telstra’s copper network to the NBN is slowly picking up pace. The continued NBN rollout and TPG’s fibre-to-the-basement deployment are the most significant fixed line infrastructure developments underway.
- Regulation of wholesale markets continues to underpin competition in the retail markets. This has facilitated some growth in market share from smaller providers in both fixed voice and broadband services.
- Price competition has continued with larger price falls across voice and broadband services than in 2012–13. Competition is also apparent in other aspects of retail products, such as larger broadband download allowances.

2.2.1 Fixed line infrastructure developments

Telstra operates the only national fixed line customer access network. This is used to provide the majority of fixed voice and broadband services in Australia. The remaining services are provided over Telstra’s HFC network, Optus’ HFC network, small fibre networks and increasingly, the NBN.

NBN deployment and take up has increased

The deployment of the NBN continues to be the most significant infrastructure development in the fixed line market. As at 30 June 2014 there were 604 470 premises passed or covered by the NBN. This includes premises passed by fibre in built-up areas (brownfields) and new developments (greenfields), as well as premises covered by the NBN fixed wireless network. Of these, about 28 per cent of the premises had been activated, up from around 15 per cent of premises passed in June 2013. A further 42 948 premises had an activated satellite service, taking the total number of premises with an activated NBN service to 210 628, just over three times as many as in June 2013. By 30 November 2014 there were 737 090 premises passed or covered by the NBN, with 305 066 premises activated.

Table 2.1 NBN rollout

<table>
<thead>
<tr>
<th>Service type</th>
<th>Description</th>
<th>June 2011</th>
<th>June 2012</th>
<th>June 2013</th>
<th>June 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fibre</td>
<td>Premises passed</td>
<td>10 575</td>
<td>33 023</td>
<td>207 543</td>
<td>492 262</td>
</tr>
<tr>
<td></td>
<td>Premises activated</td>
<td>620</td>
<td>3 867</td>
<td>33 586</td>
<td>151 127</td>
</tr>
<tr>
<td></td>
<td>Premises not yet serviceable</td>
<td>-</td>
<td>-</td>
<td>55 724</td>
<td>99 852</td>
</tr>
<tr>
<td>Wireless</td>
<td>Premises covered</td>
<td>-</td>
<td>8 885</td>
<td>27 256</td>
<td>112 208</td>
</tr>
<tr>
<td></td>
<td>Premises activated</td>
<td>-</td>
<td>91</td>
<td>1 874</td>
<td>16 553</td>
</tr>
<tr>
<td>Satellite</td>
<td>Premises activated</td>
<td>166</td>
<td>9 578</td>
<td>34 640</td>
<td>42 948</td>
</tr>
<tr>
<td>Fibre &amp; wireless</td>
<td>Premises passed/covered</td>
<td>10 575</td>
<td>41 908</td>
<td>234 799</td>
<td>604 470</td>
</tr>
<tr>
<td>Total (all types)</td>
<td>Premises activated</td>
<td>786</td>
<td>13 536</td>
<td>70 100</td>
<td>210 628</td>
</tr>
</tbody>
</table>


32 This includes premises that are not yet serviceable (service class 0) but excludes satellite services.
33 These premises have been passed by NBN fibre but are not yet serviceable.
**TPG deployment of a fibre-to-the-basement network**

In September 2013 TPG Limited (TPG) announced that it planned to make high speed broadband available to around 500,000 premises in metropolitan areas.\(^{34}\) TPG is extending its existing fibre networks in Adelaide, Brisbane, Melbourne, Perth and Sydney to connect large apartment buildings. TPG is using a fibre-to-the-basement network, which utilises a building’s existing copper cabling to supply high speed broadband to residents of those buildings who choose to switch to the TPG network. TPG released its first fibre-to-the-basement plans in September 2014.\(^{35}\) Chapter 7 contains more detail on TPG’s fibre-to-the-basement rollout.

**Access seeker DSLAM investment in new areas remains slow**

Another important area of fixed line investment was the installation of digital subscriber line access multiplexer (DSLAM) equipment in Telstra exchanges.\(^{36}\) Using their own DSLAMs, access seekers use regulated services including the unconditioned local loop service (ULLS) and the line sharing service (LSS) to provide DSL broadband to end-users via Telstra’s copper access network.\(^{37}\)

Infrastructure-based competition from the installation of DSLAM equipment allows access seekers greater flexibility in constructing their products so that they can differentiate themselves from Telstra’s wholesale services. More recently, access seekers have been investing less to extend the geographic reach of their DSLAM coverage, instead focussing on providing more services in the CBD and metro areas.

In 2013–14 access seeker investment in Telstra exchange building equipment in new areas maintained a modest growth rate of about 1 per cent. This is likely to be attributed to larger access seekers having largely completed their DSLAM rollouts in major metropolitan areas. Access seekers may also be reducing investment in copper based assets in anticipation of the NBN. Figure 2.5 shows the extent to which Telstra faces competition in areas of different population density. For each Band, the chart shows the proportion of exchanges where Telstra and access seekers have at least one DSLAM installed.

---


\(^{36}\) Digital subscriber line access multiplexer (DSLAM) equipment refers to access seekers’ own equipment that can be installed directly in Telstra’s local telephone exchange. By using their own DSLAM infrastructure, access seekers can differentiate their services, potentially offering higher bandwidth data communications and voice services than they could by simply re-selling Telstra’s wholesale service offerings.

\(^{37}\) Using the unconditioned local loop service (ULLS) allows access seekers to rent the copper wire that connects a Telstra exchange to an end-user to supply digital subscriber line (DSL) and other services such as voice. The line sharing service (LSS) allows access seekers to provide DSL services over the high frequency portion the copper wire while Telstra provides a voice service over the same line.
Notes: The figures above refer to the percentage of exchange service areas with a DSLAM presence by Telstra and access seekers, rather than the number of services in operation or service providers. It does not account for how many DSLAMs each access seeker has in a particular exchange service area.

As shown in figure 2.5, Telstra continues to have the most extensive DSLAM presence and therefore the ability to offer DSL services over the largest geographic footprint. Both Telstra and access seekers have DSLAM equipment installed in all Band 1 (CBD) and most Band 2 (metropolitan) exchange service areas. Telstra has much more extensive coverage in Band 3 (regional and rural areas) and Band 4 (remote areas with a small population).

Access seekers tend to invest mainly in Bands 1 and 2 due to the higher number of potential customers and lower backhaul costs. By deploying their own infrastructure, access seekers are able to exert greater price pressure and offer a more innovative service than when they are reselling Telstra’s wholesale services. Following steady expansion of DSLAM footprints, end-users in over 80 per cent of Band 2 exchange service areas are now able to access services provided over access seekers’ own infrastructure.

However, access seekers note that ULLS is not always the most efficient or viable form of market entry for all geographic areas. Outside of metropolitan areas, competition in the downstream market is more reliant on access to the regulated wholesale resale services. Access seekers may be limited in their ability to compete in the Band 3 and 4 areas because of the costs involved in investing in DSLAM equipment and the limited ability to recover these costs, the lower number of end-users, and the lack of scale compared to Telstra’s ubiquitous network (with largely sunk costs).

Figure 2.6 in the Telecommunications competitive safeguards for 2012–13 report indicated an access seeker DSLAM presence in 0.9 per cent of Band 4 exchange service areas as of June 2013. This figure should have been 0.4 per cent of Band 4 exchange service areas had an access seeker DSLAM in June 2013. Due to changes in rounding, the figure for access seeker DSLAM coverage, while unchanged from June 2013, is rounded to 13.2 instead of the 13.3 per cent reported previously.

### 2.2.2 Modest movements in fixed line market share

#### Telstra continues to cede market share in the fixed voice market

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.

Figure 2.6 depicts operators’ market shares of total retail fixed voice services, based on the number of subscribers. Telstra remains the largest provider of retail fixed voice services with a market share of 61 per cent. Consistent with recent years, Telstra lost some market share over the period to competitors such as Optus, iiNet and TPG. Operators in the ‘other’ category include M2 Telecommunications and Macquarie Telecom among others. The market share figures include fixed voice services that are provided using voice over internet protocol (VoIP) in a manner that replicates the traditional fixed voice service (that is, by having a telephone handset and geographic telephone number). These services are predominantly provided by Optus and iiNet. However, there remain a significant number of end-users for whom there are limited or no effective substitutes for a fixed copper based service. In its April 2014 final declaration report on fixed line services, the ACCC noted that this was because of the small number of voice services required by such end-users, which renders supply using alternative infrastructure-based competition such as the ULLS or fibre-based networks uneconomic.

#### Figure 2.6 Retail fixed voice service market shares

<table>
<thead>
<tr>
<th>Year</th>
<th>Telstra</th>
<th>Optus</th>
<th>iiNet</th>
<th>TPG</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 2010</td>
<td>70</td>
<td></td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>June 2011</td>
<td>68</td>
<td>21</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>June 2012</td>
<td>66</td>
<td>23</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>June 2013</td>
<td>63</td>
<td>5</td>
<td>6</td>
<td>16</td>
<td>7</td>
</tr>
<tr>
<td>June 2014</td>
<td>61</td>
<td>16</td>
<td>12</td>
<td>16</td>
<td>5</td>
</tr>
</tbody>
</table>

Source: Data obtained from the ACCC Division 12 RKR for named carriers and from the ACMA Communications Report 2013–14 for the ‘other’ category.

Notes: Market share calculations are based on the number of subscribers. Totals do not add up to 100 per cent in all years due to rounding.

---

40 ACCC, Public inquiry into the fixed line services declarations, Final Report, April 2014, p. 41.

41 Market share figures for iiNet and TPG were included in the ‘other’ category for June 2011 and June 2012. Optus’ market share for June 2014 includes VoIP subscribers, which were not included in previous years.
Smaller ISPs increase fixed broadband market share

There are four internet service providers (ISPs) with greater than 10 per cent market share operating in the retail market for fixed broadband services in Australia—Telstra, iiNet, Optus and TPG. Figure 2.7 shows that together, these four providers accounted for more than 82 per cent of fixed broadband (DSL and HFC cable) subscribers as at June 2014.

Smaller internet service providers have increased their market share slightly, most notably, M2 Group which owns Primus and Dodo (as of May 2013). M2 grew its market share over the period to reach approximately 8 per cent of the retail market.42

Figure 2.7  Retail fixed broadband market shares

![Retail fixed broadband market share chart]

Source: ACCC Division 12 RKR & ABS, *Internet Activity Australia (8153.0)*, June 2014.

There was a low level of consolidation activity over the period, with the key transaction in the residential retail market being the completion of the iiNet acquisition of Adam Internet in August 2013.43 TPG also acquired the assets of Telecom New Zealand Australia Pty Ltd during the year. This acquisition comprised mainly transmission and data centre infrastructure of the AAPT and Powertel businesses as well as their corporate and wholesale services.44

The use of ULLS to supply fixed line services continues to grow

While retail market shares are an important measure of competition, the degree of competition in the market for fixed line services also depends on how those services are supplied. Until the rollout of the NBN is complete, the majority of fixed line services will continue to be supplied over Telstra’s copper customer access network.45

Telstra’s customer access network is used by Telstra to provide retail telephone services directly to customers. Telstra also provides wholesale telephone services to other retail service providers, or allows them direct access to the copper line so that they can install their

---

45 The remainder are provided using other networks including Telstra’s HFC network, Optus’ HFC network and fibre networks including that of TransACT (now part of the iiNet Group).
own equipment and provide voice and internet services (via the ULLS and LSS). Table 2.2 shows the proportion of each type of service used to provide retail voice services over Telstra’s copper network.

Table 2.2 Types of voice service provided over Telstra’s customer access network

<table>
<thead>
<tr>
<th>Type of service</th>
<th>June 2009</th>
<th>June 2010</th>
<th>June 2011</th>
<th>June 2012</th>
<th>June 2013</th>
<th>June 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telstra retail</td>
<td>80%</td>
<td>78%</td>
<td>76%</td>
<td>75%</td>
<td>72%</td>
<td>69%</td>
</tr>
<tr>
<td>Telstra wholesale</td>
<td>13%</td>
<td>13%</td>
<td>13%</td>
<td>13%</td>
<td>14%</td>
<td>14%</td>
</tr>
<tr>
<td>ULLS</td>
<td>7%</td>
<td>9%</td>
<td>11%</td>
<td>12%</td>
<td>14%</td>
<td>16%</td>
</tr>
</tbody>
</table>

Source: Telstra’s annual report

Table 2.2 shows a steady decline in Telstra retail services as a proportion of voice services provided over Telstra’s customer access network. The decline in the share of Telstra retail voice services corresponds with an increase in ULLS services. Using the ULLS allows access seekers to bundle voice and DSL services.

**Telstra is the largest supplier of DSL services in rural and regional areas**

The supply of DSL services remained highly concentrated in 2013−14, with Telstra continuing to be the most significant provider of wholesale and retail services. Approximately 61 per cent of all DSL services in operation (SIO) in June 2014 were supplied from Telstra DSLAMs. This figure includes wholesale ADSL services provided by Telstra to other retail service providers.

Figure 2.8 shows that competition varies between geographic areas. Access seekers have a greater presence in CBD and metropolitan areas (as discussed in section 2.2.1) and have been able to secure a reasonable share of total DSL services in these areas using the ULLS and the line sharing service (LSS). Around 69 per cent of total DSL services in Band 1 and 50 per cent in Band 2 are provided by access seekers using ULLS and LSS. However, Telstra continues to be the main supplier of DSL in regional, rural and remote areas because of its more extensive DSLAM coverage in these areas, as shown in figure 2.5 above.

**Figure 2.8  Access seekers’ ULLS and LSS SIOs as a percentage of total DSL SIOs**

Source: ACCC CAN RKR Reports.

---


48 The line sharing service allows access seekers to provide broadband services to customers via access to the higher frequency part of the copper line.
Within the market for DSL services there are a number of other trends occurring. These include a relative decline in LSS as access seekers shift to ULLS in order to bundle voice and broadband (and provide ‘naked’ DSL services, that is, fixed broadband services without a voice service).\(^{49}\) Between June 2011 and June 2014, ULLS services have grown 48 per cent, while LSS has declined by almost 19 per cent.\(^{50}\) In addition, since June 2013, Telstra wholesale DSL services have experienced a modest increase, arresting previous large declines associated with access seekers moving to LSS and ULLS. Between June 2013 and June 2014, there was 2.6 per cent growth in Telstra wholesale broadband services following a 55 per cent drop between June 2008 and June 2013.\(^{51}\) This may be for several reasons, including the winding down of DSLAM deployments by access seekers, a desire to grow market share in advance of NBN deployment and the ACCC’s declaration of wholesale ADSL in 2012.\(^{52}\)

### 2.2.3 Prices continue a downward trend

The ACCC reports on retail price changes in *Changes in the prices paid for telecommunications services in Australia 2013–14*.\(^{53}\) The report shows that average prices are falling for both fixed voice and internet services.\(^{54}\)

In 2013–14 average real prices paid for fixed voice services declined by 5.2 per cent.\(^{55}\) This was significantly more than the decline in 2012–13 of 3.2 per cent. Retail basic access prices (i.e. line rental) declined by 3.4 per cent, more than reversing a modest increase of 0.7 per cent during 2012–13. Prices decreased across all calling services, with local calls declining 3.2 per cent and national long-distance calls by 1 per cent. Significant reductions occurred in international calls and fixed-to-mobile calls (24.9 and 10.6 per cent respectively). The decline in basic access charges made a significant contribution to the overall decline in fixed voice services prices.

The average real price paid for all types of internet services fell by 2.2 per cent during 2013–14.\(^{56}\) This is significantly greater than the 0.9 per cent reduction in 2012–13.

Significant price reductions occurred across wireless, DSL and cable services (2.7, 2.0 and 2.2 per cent respectively).

As the NBN’s addressable market grows, shown in Table 2.1, key retail service providers are now offering retail NBN plans on a national basis. The ACCC has observed that NBN broadband and voice bundles tend to be cheaper than comparative DSL products. Unlike DSL services, customers accessing broadband services over the NBN can select to receive different speeds, ranging from 12 megabits per second (Mbps) download and 1 Mbps upload to 100 Mbps download and 40 Mbps upload.

---

49 For access seekers using the LSS to supply broadband services, the end-user must acquire a line rental and fixed voice service from Telstra.
54 The average prices have been adjusted for inflation. However, the methodology for estimating price changes does not take into account changes in service quality or functionality.
55 Real prices are nominal prices that have been adjusted for the effects of inflation using the Australian Bureau of Statistics Consumer Price Index (CPI) (6401.0). The CPI increased by 3.0 per cent in 2013–14.
56 This includes wireless broadband.
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, and consistent with long-term trends, retail broadband plans are providing greater data allowances at a given price point. There are also increasing numbers of plans available at lower prices with ‘unlimited’ downloads. Broadband plans with no minimum term are also increasingly being offered.

The bundling of entertainment services is an increasingly prevalent feature of fixed broadband markets. The bundled price of fixed broadband and a content service is usually at a discount to the combined standalone price of the included services. Telstra and Optus have traditionally offered a bundled package that includes satellite or cable FOXTEL subscription television. Increasingly, internet service providers are bundling internet protocol television (IPTV) services, which are transmitted over the internet, largely from FOXTEL and Fetch TV.
Case study: competition in transmission markets

The ACCC closely monitors competition in transmission markets because transmission services are a fundamental input to most telecommunications services in Australia.

Transmission services in Australia

Transmission services are wholesale services which underlie virtually every other telecommunications service. The term ‘transmission’ refers to high capacity data links that are used by telecommunications providers to carry large volumes of voice, data, video or other communications over long distances.

Transmission services are mainly optical fibre-based, but in some cases microwave, satellite and copper links can be used. The major providers of transmission services are Telstra, Optus, Nextgen and TPG (which includes AAPT and Pipe Networks). There are also a number of smaller providers, which are often regionally based. These include Basslink, Aurora, Amcom, Nexium, Primus and Vocus. Big Air also provides transmission services over microwave links. The transmission providers, other than Telstra, are also access seekers on routes where they do not own transmission facilities.

Due to the large investments required to build transmission networks, many routes (particularly in regional areas) are only serviced by one or two providers. Routes which lack competition are regulated under the domestic transmission capacity service (DTCS) to ensure the availability of transmission services at reasonable prices.

Recent market developments

An important change in the transmission market has been market consolidation with the acquisition of AAPT by the TPG Group in February 2014. AAPT’s transmission infrastructure complements the TPG network, providing the TPG Group with additional network coverage, direct access to more NBN points of interconnection and greater data centre space.

The acquisition follows TPG’s acquisition of Pipe Networks in March 2010. Pipe has made significant investments in its network in recent years, more than doubling the length of installed cable between 2009 and 2013 to reach 3800 km. These acquisitions and network extensions will likely increase TPG’s ability to compete with the larger transmission providers, particularly in metropolitan areas.

Other recent developments in the transmission market include:
- increased competition and investment in and around NBN points of interconnection
- a significant fall in commercial prices on most transmission routes, except for longer distance routes in regional areas
- the introduction of new transmission products, particularly products with a higher capacity to meet growing transmission bandwidth requirements, and
- transmission providers differentiating their products on the basis of quality of service.

Competitive developments in transmission markets will have implications for the DTCS final access determination inquiry, which is currently underway. Further discussion about the DTCS declaration and final access determination inquiries is in Chapter 6.
2.3 Competition in mobile and wireless markets

Key points
- Mobile data services continue to be increasingly important in mobile and wireless markets.
- Mobile network operators continued to invest in 4G networks in response to the growth in consumer demand for high quality mobile and wireless data services.
- Telstra’s position in both mobile and wireless broadband improved again this year, with Telstra increasing its market shares in both markets. This has likely been the result of Telstra’s ability to differentiate its mobile network from its competitors.

2.3.1 Data services are the focus of mobile competition

Consumer demand for mobile handset and other wireless data services has meant that the provision of mobile data services has been the focus of competition between Australia’s three mobile network operators (Telstra, Optus and VHA) in recent years. Demand for data is driving much of the mobile network operators’ infrastructure investment.

As noted in section 2.1, the use of mobile data services has been increasing for a number of years. For example, mobile handset data use increased by 97 per cent in 2013–14, and in just three years the amount of data downloaded via mobile handsets has increased by 10 times.\(^{57}\) The ACMA has estimated that between 2013 and 2017, mobile data use will grow 38 per cent per year, increasing by a total of 265 per cent.\(^{58}\)

Mobile voice services also continue to be a very important service for Australian consumers. The use of mobile voice services increased by 4 per cent in 2013–14 and mobile voice calls are becoming a substitute for fixed voice services by some segments of Australian consumers.

While still important, voice services are no longer the focus of competition between the MNOs. Voice services are not as dependent on network factors as data services. Therefore it is more difficult for operators to differentiate their voice services from competitors. This change is reflected in some higher value post-paid plans, which now offer unlimited voice inclusions. In these plans, the quantity and quality of data services are the focus of differentiation. Unlimited voice inclusions are not as common for lower spend plans, which still compete on the basis of call rates and inclusions.

2.3.2 Investment in 4G networks continues

Between 2011 and 2013 all three mobile network operators launched 4G mobile networks. These networks are more advanced than 3G networks, offering faster data rates and lower latency, but they are currently only used to provide data services.\(^{59}\)

Over the past year each of the MNOs has continued to invest in their 4G networks. This investment has largely been driven by consumer demand for high quality data services and competition between the mobile network operators to gain and keep subscribers. Table 2.3 shows recent 4G network developments.

---

59 Where a user has a 4G service, they will use a 3G network to make and receive voice calls, or to send or receive SMS or MMS.
Table 2.3 4G mobile network developments

<table>
<thead>
<tr>
<th>Operator</th>
<th>4G Network Launch</th>
<th>Coverage</th>
<th>Subscribers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telstra</td>
<td>September 2011</td>
<td>Telstra extended coverage from 66 per cent of the population at June 2013, to 87 per cent of the population as at June 2014.60 Telstra reported that it had over 5.2 million devices on its 4G network in 2014.61 This is an increase from 2.8 million in 2013.</td>
<td></td>
</tr>
<tr>
<td>Optus</td>
<td>September 2012</td>
<td>As at March 2014, Optus had expanded its 4G coverage to 75 per cent of the Australian population.62 It plans to extend this to 90 per cent of the population by April 2015.63 In 2014 Optus reported that it had 2.4 million 4G subscribers, up from 1.1 million in 2014.64</td>
<td></td>
</tr>
<tr>
<td>VHA</td>
<td>July 2013</td>
<td>VHA continued to expand the coverage of its 4G network, stating in March 2014 that it was adding more than 100 new 4G sites per month.65 VHA has stated that it had over one million devices using its 4G network since its launch in July 2013.66</td>
<td></td>
</tr>
</tbody>
</table>

Source: Company annual reports and media releases.

4G networks will continue to develop

It is likely that MNOs will continue to improve and expand their 4G network coverage into the next year to respond to strong consumer demand for 4G services.

Australians have rapidly adopted 4G services since their launch, illustrating that demand for high quality mobile data services is strong. For example, Telstra and Optus have increased the number of 4G services offered on their networks by approximately 86 and 209 per cent respectively. VHA has also been able to add over one million 4G services since launching its network. This is likely to provide operators with an incentive to continue to invest in their 4G networks.

MNOs appear to have radiofrequency spectrum resources available to further improve and expand their 4G networks. Telstra and Optus both purchased 700 MHz (which will become available in 2015) and 2.6 GHz (which became available in October 2014) radiofrequency spectrum in the digital dividend auction. They will use this spectrum to improve services on their 4G networks.67 VHA has announced that it is planning to re-allocate its existing 850 MHz spectrum holdings, which it has used to provide 3G services, to improve services on its 4G network.68

60 Telstra Pty Ltd, Telstra Annual Report 2014, p. 4.
61 Telstra Pty Ltd, Telstra Annual Report 2014, p. 10. They also note that this is 34 per cent of handheld customers.
2G networks are being shut down

With the development of 4G mobile networks and continued investment in 3G networks, 2G network services are beginning to be shut down. In July 2014 Telstra announced that it will close its 2G network by the end of 2016. Telstra noted that mobile technology had evolved significantly since its launch, that only one per cent of its network traffic was carried over its 2G network, and that it had not sold 2G services for several years.69

2.3.3 Telstra gains in mobile and wireless broadband markets

Telstra continued to increase its market share in both the mobile and wireless broadband markets in the past year, while VHA again lost subscribers for both services. This likely reflects consumer demand for data services, a consumer perception that Telstra has a superior mobile network, and Telstra capitalising on having the most progressed 4G network.

As Optus and VHA continue to deploy their own 4G networks, Telstra’s 4G network advantage may decrease. This, when coupled with increased price competition as described below, may help Optus and VHA halt or reverse their recent market share losses.

In this section mobile services refers to mobile services provided on mobile handsets (usually a voice, data and messaging service) and wireless broadband refers to non-handset wireless data services (such as those used via tablets, wireless dongles, and USB sticks).

Retail mobile market

For the fourth consecutive year Telstra increased its share of the retail mobile market while VHA's market share fell. Overall, this means that the gap between Telstra and VHA has increased from a 10 per cent difference in June 2010 to a 27 per cent difference in June 2014. Over the same time, Optus' share of the market has also decreased, falling 3 percentage points since June 2012 to 27 per cent in June 2014.

Figure 2.9 Retail market share for mobile handset services

![Figure 2.9 Retail market share for mobile handset services](image_url)

Source: ACCC Division 12 and data from carriers.70

---


70 Optus’ market share includes Virgin Mobile subscribers because Virgin Mobile is a wholly-owned subsidiary of Optus.
Telstra’s previous market share gains were most likely a result of VHA’s subscriber losses which resulted from network issues it experienced in late 2010. However, the gains in the last few years are more likely to have resulted from Telstra’s ability to differentiate the quality of services on its mobile network from the other MNOs, which is also reflected in Optus’ more recent market share losses. Factors that may have contributed to this include, Telstra being the first of the MNOs to begin providing 4G mobile services and the greater geographic coverage of Telstra’s 3G and 4G networks.

Another important development over the year was the growth of the market share of mobile virtual network operators (MVNOs) which has increased from 6 to 10 per cent since June 2012. There are currently around 50 MVNOs operating in Australia, meaning that the market share of each operator is fairly small. However, the increase in MVNO market share is a positive sign for competition, as MVNOs play an important role in providing services to niche groups of consumers and often have innovative pricing offers which place pressure on the larger operators.

**Wireless broadband services**

Telstra also continued to increase its share in the wireless broadband market, which has risen from 47 per cent in June 2010 to 61 per cent at June 2014. This has been accompanied by both Optus and VHA losing market share in this market since 2010.

![Figure 2.10 Retail market share for wireless broadband services](image-url)

Source: ACCC Division 12 RKR data and ABS. *Internet Activity Australia (8153.0), July 2013.*

Again, Telstra’s strength in this market is likely a result of its ability to differentiate itself from the other providers on the basis of quality of service, and having the most progressed 4G network. This advantage is likely more pronounced in the wireless broadband market than the mobile handset market, as wireless broadband services are only used to supply data services, which are more sensitive to network quality than voice or messaging services.

### 2.3.4 Price competition increases

The ACCC reports on retail price changes in *Changes in the prices paid for telecommunications services in Australia 2013–14.* Price competition between mobile service providers has been less vigorous in recent years than it had previously been.

---

In 2013–14 the average real price paid for mobile services declined by 2.0 per cent, while wireless broadband prices fell by 2.7 per cent. These price reductions are generally consistent with the slight downward trend observed since 2008–09.

However, over the course of the year the focus on price-based competition seems to have increased, with a number of providers introducing new and innovative mobile plan features. For example, a number of providers made changes to retail offers to help customers avoid bill shock and make offers easier for consumers to understand.

In July 2013 Optus introduced a new range of post-paid plans which provided consumers with a number of included voice minutes, rather than an included number of dollars that could be spent on voice. These plans also charged for excess usage in a new way. Under Optus’ new plans, users were charged in $5 or $10 increments for additional voice call or data inclusions once they exceeded their usual monthly allowance, rather than being charged an excess rate for each additional minute of MB of data used. These changes significantly lowered the effective rate that users would pay for exceeding their plan inclusions and made the plans easier for consumers to understand.

The other MNOs have also lowered excess data rates in 2014. In early 2014, Telstra lowered its excess data rate for a range of post-paid plans by 70 per cent. Later in the year, VHA also lowered excess data rates on a number of its post-paid plans charging in $10 increments for an additional 1GB of data. Again, these measures will lower the costs to users who exceed their monthly data allowances.

Providers also made a range of promotional offers to attract new subscribers. In the lead up to the launch of the new iPhone in September 2014 both Optus and Telstra offered a $200 credit to contribute towards early exit fees, and a $250 handset trade-in credit. During the year a number of providers, including Optus, Telstra, VHA and Virgin Mobile, all introduced temporary ‘data bonuses’ which gave consumers a greater data inclusion if they signed up during the time of the promotion, effectively decreasing their data rates for the length of the contract.

Many of these pricing developments, such as lower excess data rates and ‘bonus’ data offers, indicate that data offers are the focus of competition between mobile operators. This is a positive development, following a trend in 2012–13 where data inclusions fell for a number of mobile plans.

Overall these trends indicate that there is a renewed focus on competitive retail offers, which should benefit Australian consumers.

### 2.4 Telecommunications complaints

**Key points**

- Customer complaints about telecommunications services continued to fall in 2013–14:
  - The ACCC received 13 per cent fewer complaints than last year.
  - TIO complaints fell 12 per cent to the lowest level in six years.
- Complaints about mobile coverage and performance issues fell significantly over the year. Conversely, excess data charges and NBN connection issues emerged as areas of concern.
- Competition and industry regulations, such as the TCP Code, continued to have a positive effect for consumers, but there is still room for improvement in the industry.
2.4.1 ACCC complaints continued to decline

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

In 2013–14 the ACCC received 2474 complaints and inquiries about the telecommunications industry. This was 13 per cent less than the previous year. About 35 per cent of contacts raised concerns that were also referred to a more appropriate organisation for resolution, in particular the Telecommunications Industry Ombudsman (TIO).

2.4.2 TIO complaints at six 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 2.11 shows the number of complaints received by the TIO over the past six years. In 2013–14 the TIO received 138 946 complaints, 12 per cent fewer than the previous year.\(^{72}\)

Figure 2.11 Number of complaints received by TIO

![Number of complaints received by TIO](image)

Source: TIO Annual Reports.

The fall in complaints was largely due to a reduction in new complaints about mobile coverage, faults and customer service issues. While customer service complaints were still high in 2013–14, they fell by 20 per cent from the previous year. This result reflects a greater focus on customer satisfaction by operators and the positive impact of the Telecommunications Consumer Protection Code (TCP Code).\(^{73}\)

Mobile complaints fall

Table 2.4 shows the proportion of TIO complaints attributable to each service type.

---

\(^{72}\) Telecommunications Industry Ombudsman, TIO complaints: the year in review 2013–14, September 2014, p. 4

Table 2.4 TIO complaints received by service type

<table>
<thead>
<tr>
<th>Type of service</th>
<th>2009−10</th>
<th>2010−11</th>
<th>2011−12</th>
<th>2012−13</th>
<th>2013−14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile</td>
<td>46%</td>
<td>58%</td>
<td>64%</td>
<td>59%</td>
<td>53%</td>
</tr>
<tr>
<td>Landline telephone</td>
<td>28%</td>
<td>23%</td>
<td>19%</td>
<td>21%</td>
<td>25%</td>
</tr>
<tr>
<td>Internet</td>
<td>25%</td>
<td>19%</td>
<td>16%</td>
<td>20%</td>
<td>22%</td>
</tr>
<tr>
<td>Total complaints</td>
<td>167 772</td>
<td>197 682</td>
<td>193 702</td>
<td>158 652</td>
<td>138 946</td>
</tr>
</tbody>
</table>

Source: TIO Annual Reports

Mobile services still accounted for the majority of telecommunications complaints in 2013−14. However, complaints about mobile services decreased by 21 per cent over the year. This is largely attributable to fewer complaints about poor coverage, call dropouts, slow data speeds and faults. In particular, the TIO received about 55 per cent fewer complaints about mobile coverage compared to the previous year. This fall coincides with significant investment in mobile infrastructure and the migration of many mobile customers to 4G networks.

**Emerging issues**

The top substantive complaint issue during the year was excess data charges, which increased by 27 per cent to reach 14 534 complaints. Complaints relating to the NBN also increased during the year, reflecting the expanded rollout of the network. The TIO received 3982 new complaints about NBN-related matters, relating to issues such as connection delays, faults and missed appointments. The TIO and ACCC will monitor these issues closely in the coming year.

The decline in complaints over the past few years is encouraging and shows that increased competition and the TCP Code, which was registered in 2012, are delivering benefits for consumers. However, there is still more work to do to bring complaints down from the very high levels experienced a few years ago. The telecommunications industry has historically performed poorly compared to other industries. The TIO continues to receive more complaints than some other similar industry ombudsmen. For example, in 2013−14 the Financial Ombudsman Service handled 31 680 disputes about financial service providers, significantly less than the TIO.74

Competition is important to drive improvements in the industry. In the past two years we have seen significant investment in mobile infrastructure investment to win customers on the basis of mobile coverage and performance, and this has been reflected in the reduced complaint numbers. The ACCC has also seen a greater focus on customer satisfaction and increased flexibility in some plans. It is important that we continue to foster competition and maintain appropriate consumer-focussed regulations to ensure that consumers benefit from further improvements in the industry.

---

3 Anti-competitive conduct provisions

Key points

• In 2013–14 we undertook one investigation into alleged anti-competitive conduct. We also assessed several third line forcing notifications.
• In 2013–14 there were no authorisation applications and no applications for exemption orders.

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 CCA. It also outlines telecommunications-related authorisation applications under Part VII of the CCA.

3.2 Investigations conducted in 2013–14

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. Part XIB operates in addition to the general regime set out in Part IV of the CCA, which protects competition in the market generally.

The ACCC undertook one investigation into alleged anti-competitive conduct under Part IV and Part XIB of the CCA during the year. The ACCC concluded the investigation, finding the alleged conduct was unlikely to breach the CCA and no further action was required.

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 Third line forcing notifications

Third line forcing is a type of exclusive dealing prohibited by subsections 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 2013–14 the ACCC received several third line forcing notifications involving telecommunications industry participants. Some examples of notifications include:

• Vodafone offering some charities the opportunity to participate in the Vodafone Foundation App Aid 2013 if they acquire software development and marketing services

75 Sections 151AJ and 151AK of the CCA.
from a third party agency and agreed to the terms and conditions of the crowd funding website Pozible.  

- Telstra offering its customers, staff and contractors entry into a competition/s if they purchase Telstra Thanks Movie Tickets from Event Cinemas, Greater Union, Birch Carroll & Coyle, Moonlight Cinemas or Village Cinemas.

- Foxtel offering a free two-month Foxtel Presto subscription to customers who purchased a Telstra service during the promotion period.

- 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.

All notifications were allowed to stand on public benefit grounds.

### 3.5 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. In 2013–14 the ACCC did not receive any telecommunications-related authorisation applications.

---

76 Notification N96980 lodged by Vodafone Hutchinson Australia Pty Ltd on 20 September 2013.

77 Notification N97306 lodged by Telstra Corporation Limited on 6 March 2014.

78 Notification N97409 lodged by Foxtel Management Pty Ltd on 16 May 2014.

79 See for example notifications N97420, N97412, N97387, N97356, N97349.

80 Authorisation applications for mergers are dealt with by the Australia Competition Tribunal rather than the ACCC.
4 Consumer safeguard provisions

Key points
- In 2013–14 we undertook 17 major investigations in the telecommunications sector under the Australian Consumer Law.
- 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 ASIC, and organisations such as the TIO and 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. The ACCC uses different compliance and enforcement tools to encourage compliance with the Australian Consumer Law (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 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 Telecommunications Industry Ombudsman (TIO) and the Australian Communications Consumer Action Network (ACCAN).

4.2 ACCC key investigations for 2013–14

In 2013–14 the ACCC undertook 17 major investigations in the telecommunications sector under the ACL, two less than the previous year. Nine of these investigations were on foot at the start of the reporting period.

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 the following matters:

- **Bytecard Pty Ltd**: In July 2013 the Federal Court declared by consent that some terms in Bytecard’s standard form consumer contract were unfair, and therefore void under section 23 of the ACL.

---

- **Excite Mobile Pty Ltd**: On 29 November 2013 the Federal Court ordered that Excite Mobile pay penalties of $455,000 for engaging in false, misleading and unconscionable conduct, and using undue coercion when selling and obtaining payment for mobile phone services. Excite Mobile’s two directors were disqualified from managing a corporation and ordered to pay penalties of $55,000 and $45,000 respectively.82

- **Startel Communication Co Pty Ltd**: On 8 April 2014 the Federal Court ordered by consent that Startel pay penalties of $320,000 for misleading consumers about their rights under the ACL when cold calling consumers to sell mobile phone plans. The Court also made a community service order requiring Startel to publish an online education page.

- **TPG Internet Pty Ltd**: In December 2013 the High Court of Australia allowed an appeal by the ACCC about TPG’s Unlimited ADSL2+ advertisements. The High Court overturned the Full Federal Court’s findings that TPG’s advertisements were not misleading and reinstated the $2 million pecuniary penalty ordered by the trial judge. This ruling reinforced the importance of adequately disclosing the full cost of bundled offers to consumers.

- **Zen Telecom Pty Ltd**: On 30 September 2014 the Federal Court ordered Zen Telecom to pay pecuniary penalties of $225,000 for contraventions of the ACL in relation to its unsolicited telemarketing practices. Zen Telecom was found to have engaged in misleading conduct and making false and 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

The ACCC may issue an infringement notice where it believes 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.

On 22 April 2014 Cardcall Pty Ltd paid two Infringement Notices totalling $20,400 in relation to advertisements for its ‘Hot’ prepaid phonecard services. The ACCC had reasonable grounds to believe the advertisements contained false or misleading representations because the advertised prices did not reflect various terms and conditions that applied, such as flagfall fees, service fees and other surcharges. These terms were not prominently displayed and made it highly unlikely that consumers would pay the advertised price per minute through ordinary use of the phonecard.

### 4.2.3 Court enforceable undertakings

The ACCC often resolves contraventions of the ACL by accepting court enforceable undertakings under section 87B of the CCA. The ACCC accepted two court enforceable undertakings during the year:

- **On 17 December 2013** the ACCC accepted a court enforceable undertaking from Apple Pty Ltd for potentially false and misleading representations about consumer guarantee rights.

- **On 3 March 2014** the ACCC accepted a court enforceable undertaking from Medion Australia Pty Ltd for claims about unlimited features of its ALDImobile ‘Unlimited Pack’, when significant usage restrictions applied.

Both companies have made changes to remedy the ACCC’s concerns and have implemented compliance measures.

---

82 The directors were disqualified for a period of three years and a period of two and a half years respectively.
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 common telecommunications issues. Consumer education activities undertaken during the year include:

- A MoneySmart Teaching digital activity, which aims to help young people understand and use their consumer rights when purchasing a mobile phone. This activity was produced in collaboration with ASIC, AMTA, the TIO and the ACMA and is part of a set of digital activities for primary and secondary students which help to develop consumer and financial literacy skills. It was released in March 2014. [83]
- New consumer information to help consumers migrate to the National Broadband Network (NBN). We published new content on our website on key issues such as the disconnection of old networks, choosing a service provider and plan, and the compatibility of medical and security alarms. [84]
- 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. [85]

4.3.2 Engagement with providers about broadband ‘speed’ claims

The ACCC seeks to engage with businesses to ensure they fully understand their ACL obligations. In 2013–14 the ACCC engaged with several network operators and retail service providers in greenfield estates to inform them of their compliance obligations under the ACL. The primary focus was on claims about data transfer rates (or ‘speed’ claims). Through this process, the ACCC sought to raise awareness about the importance of network provisioning in ensuring that retail service providers are able to deliver the advertised speeds and how network provisioning decisions should be taken into account when marketing broadband services to consumers.

4.3.3 International sweep of free ‘apps’

In September 2013 the ACCC conducted a sweep of over 340 ‘app’ games in the Google Play and Apple App Stores in conjunction with the International Consumer Protection and Enforcement Network (ICPEN) consumer protection agencies. The review found that many ‘free’ game apps that appeal to children do not come with adequate disclosures about additional costs that can be incurred when using these games (such as in-app purchases) and fewer than 20 per cent of children’s ‘free’ game apps include information about how to prevent inadvertent in-app purchases.

The ACCC undertook an integrated approach to addressing these concerns, which included compliance, enforcement, international engagement, and consumer awareness raising activities. The ACCC also published new information on its website to help consumers prevent unauthorised in-app purchases and to restrict in-app purchases by changing their device settings.

4.3.4 Stakeholder engagement

The ACCC works with several other telecommunications organisations to promote a cohesive response to consumer and competition challenges. We regularly meet with other regulatory organisations, consumer representative groups and industry.

In 2013–14 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 Over-the-top Services Transition Working Group and the Department of Communications Service Continuity Assurance Working Group. More information about our NBN migration work is described in chapter 8.

In January 2014 we also entered into a five year memorandum of understanding (MOU) with Communications Compliance. Communications Compliance was established under the Telecommunications Consumer Protections (TCP) Code as an independent body responsible for overseeing the conduct of the Code Compliance Framework. The MOU allows information sharing about industry compliance with the TCP Code and the ACL.

During the year, Communications Alliance also established a Service Continuity Working Group to consider ways to reduce consumer issues that arise when a provider exits the market. The ACCC is a member of this working group.

4.3.5 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 ACMA’s proposals to reduce reporting requirements.  
- The ACMA’s consumer safeguards for optional backup power supply arrangements for the NBN.
- Communications Alliance’s review of the Mobile Premium Services Code.
- The Department of Communications’ proposed measures for the Telecommunications Consumer Protection Deregulation Bill No. 1 2014.
- The Department of Communications’ Mobile Blackspots Programme.

In the second half of 2014, the ACCC contributed to a limited review of the TCP Code, the Department of Communications proposed Migration Assurance Policy and the Communications Alliance Copper Migration Working Committee.

---

86 For the consultation paper and the ACCC’s submission, see: http://www.acma.gov.au/theACMA/Consultations/Consultations/Current/reducing-telecoms-reporting-requirements.
88 For the consultation paper and online discussion board, see: http://www.communications.gov.au/deregulation/telecommunications_deregulation_bill_no.1_2014.
89 For the consultation paper and the ACCC’s submission, see: http://www.communications.gov.au/mobile_services/mobile_black_spot_programme.
4.4 Other market and regulatory developments

The ACCC works alongside other regulatory bodies, consumer representative organisations and industry to improve outcomes for consumers in the telecommunications sector. There have been several relevant activities during the year, including initiatives to address consumer concerns about mobile coverage and international mobile roaming.

4.4.1 Mobile network coverage and performance

Several initiatives were undertaken during the year to address the mobile network coverage and performance issues experienced in 2012–13. In November 2013 the ACMA held a stakeholder forum to better understand the issues faced by consumers. Following the forum, industry groups developed a consumer guide to help customers understand factors that may affect mobile performance and what to do if things go wrong. Industry also continued to invest significantly in mobile networks and migrated some customers onto 4G networks. In addition, the Australian Government committed to a Mobile Blackspots Programme to improve mobile voice and broadband coverage in regional, remote and outer metropolitan areas.

4.4.2 Court ruling on geographic coverage advertisements

In February 2014 Telstra commenced court proceedings against Optus, alleging that some Optus advertisements misrepresented the geographical coverage of Optus’ mobile network. The Supreme Court of Victoria found that Optus’ advertisements were misleading and deceptive because they contained a map of Australia which implied that the advertisement was about geographic rather than population coverage.90

4.4.3 International mobile roaming

In September 2013 the ACMA introduced a new International Mobile Roaming standard to reduce the risk and incidence of bill shock associated with travelling overseas. The standard requires providers to give consumers information about the cost of roaming, allow consumers to opt out of roaming services and offer customers spend management tools.

4.4.4 Mobile calls to freephone and local rate numbers

In June 2014 the ACMA agreed to a framework for call charges from mobile phones to ‘1800’ (freephone) and ‘13’/’1300’ (local rate) numbers. Under the framework, calls to ‘1800’ numbers from mobile phones will be free and operators will be required to offer ‘13-friendly’ mobile plans in accordance with a guideline developed by Communications Alliance.91

4.4.5 Dealing with financial hardship in the telecommunications industry

In March 2014 a guide was introduced to assist telecommunications service providers help consumers in financial hardship.92 The guide was developed by a working group including service providers, financial counselling representatives, consumer advocates and the TIO. It enables customers in financial hardship to stay connected to essential services, while assisting them to meet their financial obligations.

90 Telstra Corporation Ltd v Singtel Optus Pty Ltd [2014] VSC 35.
91 ‘13-friendly’ plans include ‘13’ and ‘1300’ calls in the included value allowance, rather than billing for them separately.
5 Monitoring and reporting

Key points
• During the year we made some changes to our existing record keeping rules and undertook a number of other monitoring activities.
• We also introduced a new record keeping rule in September 2014 to monitor the take-up and usage of NBN services.

5.1 Overview

This chapter outlines the ACCC’s main monitoring and reporting activities for 2013–14, which included:
• collecting information under record keeping rules (RKRs) (section 5.2)
• reporting on Telstra’s compliance with its structural separation undertaking (section 5.3) and retail price controls (section 5.4), and
• other activities, including consideration of a broadband monitoring and reporting program and monitoring developments in media content (section 5.5).

The ACCC also has powers under section 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

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 ensure that the information collected continues to be relevant. Table 5.1 summarises the information collected under current RKRs.
<table>
<thead>
<tr>
<th>Record Keeping Rule</th>
<th>Information collected</th>
<th>Rationale</th>
<th>Reporting period and disclosure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to Telstra Exchange Facilities</td>
<td>Telstra must report on access to its exchange facilities including capped exchanges and exchanges with queued access seekers.</td>
<td>To provide oversight of any decision to cap an exchange and to monitor access seeker queues to exchanges.</td>
<td>Monthly. Telstra must publicly disclose certain information.</td>
</tr>
<tr>
<td>Audit of Telecommunications Infrastructure Assets</td>
<td>Specified carriers must report on the location of their core network and Customer Access Network (CAN) infrastructure.</td>
<td>Provides the ACCC with a consistent and coherent infrastructure database to inform regulatory decisions.</td>
<td>Annual. The ACCC publishes aggregated data on a periodic basis.</td>
</tr>
<tr>
<td>Building Block Model</td>
<td>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.</td>
<td>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.</td>
<td>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.</td>
</tr>
<tr>
<td>Division 12 Report</td>
<td>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.</td>
<td>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.</td>
<td>Annual. No public disclosure. However the ACCC’s annual Division 12 Report contains estimated price indices for telecommunications services, based on this RKR data.</td>
</tr>
<tr>
<td>NBN Services in Operation</td>
<td>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.</td>
<td>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.</td>
<td>Quarterly. No public disclosure but the ACCC may publish a highly aggregated summary.</td>
</tr>
</tbody>
</table>

---

93 The ACCC has given Telstra a disclosure notice in relation to the RKR information provided as part of the current 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.
<table>
<thead>
<tr>
<th>Record Keeping Rule</th>
<th>Information collected</th>
<th>Rationale</th>
<th>Reporting period and disclosure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulatory Accounting Framework (RAF)</td>
<td>Optus, Telstra and Vodafone Hutchison Australia (VHA) must provide certain financial information and service usage data for retail and wholesale communications services.</td>
<td>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.</td>
<td>Biannual. No public disclosure.</td>
</tr>
</tbody>
</table>

| 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 RKR

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 ACCC considers that information obtained under the RKR will provide the ACCC with a greater insight into the state and evolution of competition on the NBN, and benefit consumers by supporting better regulatory decision-making that promotes competition and efficient use of the NBN.

For a number of 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 switched over to the NBN.

### 5.2.2 Amendments to existing RKRs

During 2013–14 the ACCC undertook public consultation processes about whether to vary the Division 12 RKR and the Telstra Exchange Facilities RKR.

In June 2013 the ACCC amended the Division 12 RKR to ensure that it reflects changing market conditions and remains consistent with the ACCC’s methodology for preparing the Division 12 report. Key changes include streamlining some existing reporting requirements (such as aggregated reporting of mobile services); removing certain services (including dial-up internet) and adding new services (such as VoIP and those provided over the NBN). These amendments took effect from the 2013–14 financial year.

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.
5.2.3 Revocation of RKRs

**Telstra Accounting Separation RKRs**

On 28 March 2014 the ACCC revoked the Accounting Separation RKRs after the Minister of Communications revoked a Direction obliging the ACCC to oversee the accounting separation of Telstra. The accounting separation framework was put in place in 2003 to provide transparency over Telstra’s wholesale and retail operations and to help identify if Telstra was discriminating against its wholesale customers in favour of its retail business. These reporting requirements have since been superseded by a more comprehensive reporting framework under Telstra’s structural separation undertaking which was approved by the ACCC in February 2012.

**Bundled Services RKR**

On 2 July 2014, in response to a request from Telstra, the ACCC decided to revoke the Bundled Services RKR. The Bundled Services RKR was put in place in 2003 to enable the ACCC to monitor the number of bundled services acquired by Telstra 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 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 2014 the Minister for Communications tabled the ACCC’s report, which identified a number of breaches of the SSU during 2012–13. 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
- quarterly TEM substantiation reports.

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

5.4 Telstra’s retail price control arrangements

Each year the ACCC must 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. 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).

---

On 31 October 2014 the ACCC reported to the Minister that it was satisfied with Telstra’s compliance with its obligations for 2013–14.95

5.5 Other activities

5.5.1 Broadband performance monitoring

The ACCC is considering implementing a program to monitor and report on the performance of fixed broadband internet services provided over both legacy and NBN networks in Australia. Such a 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 proposed program would address the current lack of independent and reliable information on broadband service performance available to consumers. It would provide better visibility over actual data transfer rates, and allow the ACCC to identify where retail service provider (RSP) claims about such rates do not match end-user experience, or where RSPs’ claims cannot be substantiated.

The ACCC also considers that the proposed program would benefit consumers by allowing them to compare the performance of RSPs prior to agreeing to sign up with a particular RSP. Visibility over RSP performance would provide increasing consumer benefits as the number of consumers making decisions about their future internet requirements increases in connection with the rollout of the NBN.

The ACCC does not consider that the proposed program would increase the regulatory burden on industry as it requires minimal participation from RSPs. Instead it would increase transparency, facilitate competitive market outcomes and encourage efficient investment in broadband infrastructure. In turn, this would likely reduce the need for direct regulatory intervention.

The ACCC commenced consultation on the potential program in August 2013 and concluded this process in June 2014 with the release of a position paper. The position paper specifies the key attributes that any broadband monitoring and reporting program would need to have. A decision on whether to proceed with the proposed monitoring and reporting program has not been made and is subject to funding.

5.5.2 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 2013–14 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 Law Reform Commission’s review of copyright and the digital economy,96 and
- the Australian Government’s Competition Policy Review.97

---


In both reviews, the ACCC 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.

5.5.3 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 CSP to provide information on charges for specified carriage services and/or ancillary goods and services, or information on its intentions regarding those goods or services. The ACCC did not make any tariff filing directions in 2013−14.

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. During 2013−14 Telstra complied with the requirements to give the ACCC tariff filing information.

---

98 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 extended and varied the declarations of the domestic transmission capacity service, the fixed line services and the mobile terminating access service.
- We are currently undertaking inquiries to set terms and conditions of access for each of those declared services.

6.1 Overview

This chapter outlines the ACCC’s role in regulating access to telecommunications network services (excluding NBN Co services) under Part XIC of the CCA. Relevant provisions regarding the NBN and superfast network services are 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. Once a service is declared, the ACCC can set regulated terms and conditions of access in an access determination or binding rule of conduct.

Currently there are 10 declared services, excluding NBN services. Our main activities in 2013–14 included:
- concluding declaration inquiries for the domestic transmission capacity service, fixed line services and mobile terminating access service (section 6.2)
- commencing public inquiries to set regulated terms and conditions of access to these declared services (section 6.3), and
- contributing to an important review of access arrangements under Part XIC.

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. Providers must also lodge all commercial agreements (access agreements), variation agreements and termination notifications for declared services with the ACCC. Access providers are now only required to lodge quarterly reports of access agreements made, varied or terminated during the quarter (rather than lodging the full access agreements).

At present there are 10 declared services under Part XIC, excluding NBN services. Table 6.1 describes each of these services.

99 While the ACCC is not required to approve access agreements, compliance with the lodgement requirements is a carrier licence condition and service provider rule. Legislative changes to this obligation received Royal Assent on 16 October 2014.
<table>
<thead>
<tr>
<th>Service</th>
<th>Description</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wholesale ADSL</td>
<td>A point-to-point service which allows access seekers to provide a broadband ADSL internet service to a customer using Telstra’s equipment.</td>
<td>14 February 2012 to 13 February 2017</td>
</tr>
<tr>
<td>Local carriage service (LCS)</td>
<td>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.</td>
<td>1 August 2014 to 31 July 2019</td>
</tr>
<tr>
<td>Fixed originating access service (FOAS)</td>
<td>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.</td>
<td>1 August 2014 to 31 July 2019</td>
</tr>
<tr>
<td>Fixed terminating access service (FTAS)</td>
<td>Allows a customer who is provided a fixed line phone from one retail service provider to receive a call from a person using another service provider’s network.</td>
<td>1 August 2014 to 31 July 2019</td>
</tr>
<tr>
<td>Wholesale line rental (WLR)</td>
<td>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.</td>
<td>1 August 2014 to 31 July 2019</td>
</tr>
<tr>
<td>Line sharing service (LSS)</td>
<td>A service for access to the non-voiceband 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.</td>
<td>1 August 2014 to 31 July 2019</td>
</tr>
<tr>
<td>Unconditioned local loop service (ULLS)</td>
<td>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.</td>
<td>1 August 2014 to 31 July 2019</td>
</tr>
<tr>
<td>Mobile terminating access service (MTAS)</td>
<td>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.</td>
<td>1 July 2014 to 30 June 2019</td>
</tr>
<tr>
<td>Domestic transmission capacity service (DTCS)</td>
<td>A point-to-point service used for the high capacity transmission of communications traffic (such as voice, data or video).</td>
<td>28 March 2014 to 31 March 2019</td>
</tr>
</tbody>
</table>
### Service List

<table>
<thead>
<tr>
<th>Service</th>
<th>Description</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local bitstream access service</td>
<td>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.</td>
<td>The declaration took effect on 13 April 2012. It does not expire.</td>
</tr>
</tbody>
</table>

### 6.2.1 Declaration inquiries

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.

#### Declaration inquiries concluded in 2013–14

The ACCC concluded three declaration inquiries in 2014, deciding to vary and extend the declaration for each of the services. In these inquiries the ACCC assessed the costs and benefits of regulation and made adjustments to the scope of regulation to ensure that services are only regulated where it is necessary. These inquiries were for the following services:

- **domestic transmission capacity service (DTCS):** on 28 March 2014 the ACCC released its final decision for the DTCS declaration review. The ACCC decided to vary and extend the declaration of the DTCS for a further five years.

- **fixed line services:** on 17 April 2014 the ACCC released its final report on the fixed line services declaration inquiry. The ACCC decided to extend the declaration for the six services under review for a five year period until 31 July 2019.\(^\text{100}\) The ACCC also made a number of variations to the existing service descriptions.

- **mobile terminating access service (MTAS):** on 17 June 2014 the ACCC concluded the MTAS declaration with the publication of its final decision. The ACCC decided to regulate mobile voice termination for a further five years and to regulate SMS termination for the first time, also for a period of five years. The extended and varied MTAS declaration expires on 30 June 2019.

Each of the declaration inquiries is discussed in further detail in the case studies below.

#### New declaration inquiry in 2014

On 11 September 2014 the ACCC commenced a new inquiry into whether a superfast broadband access service, such as the very-high-bit-rate digital subscriber line (VDSL) service, should be declared. We commenced the inquiry following a Vertigan Review recommendation that the ACCC should commence a declaration inquiry into vectored VDSL services to make wholesale bitstream services available to access seekers, and our decision not to take action against TPG Ltd regarding the level playing field provisions in the Telecommunications Act (see section 7.6 for more detail).

On 12 December 2014 the Minister for Communications made the Carrier Licence Conditions (Networks supplying Superfast Carriage Services to Residential Customers) Declaration 2014. This carrier licence condition will apply to designated networks supplying a superfast

\(^{100}\) The six fixed line services under review were the LCS, POAS, FTAS, WLR, LSS and ULLS.
carriage service to residential customers, such as fibre-to-the-basement networks being rolled out in multi-dwelling units, from 1 January 2015. The carrier licence condition includes a number of obligations, including an obligation to functionally separate wholesale and retail operations, supply wholesale services on request and non-discrimination obligations.

The ACCC is currently considering the implications of the carrier licence condition and will provide an update on the declaration inquiry in early 2015.

**Case study: the DTCS declaration review**

Transmission services are high capacity wholesale services that carry large volumes of voice, data and video traffic. They are often used by telecommunications companies to carry the combined traffic of many separate services across long distances, as well as by large corporate customers with high volumes of traffic. The DTCS is a declared transmission service that allows telecommunications companies to provide downstream wholesale and retail services to end-users.

The DTCS was deemed to be a declared service in 1997 because it was recognised as an essential input for other services. The ACCC has progressively removed regulation from geographic areas where competition for the service has developed; however, the ACCC still regulates areas where competition is not effective.

During the 2013–14 declaration inquiry, the ACCC used a new method to decide whether an area or transmission route could be considered competitive. Under this new method, we examined the number of providers offering services in each area or route. We considered that the presence of three or more providers was an indicator of competition, and then applied a number of additional qualitative and quantitative assessments to determine whether the area or route should be regulated.

Applying the new method, we decided to remove regulation from 112 metropolitan exchange serving areas (ESAs). These areas were in addition to the 88 metropolitan ESAs that had previously been deregulated. We also made some changes to the regulation of capital-regional routes and some regional routes.

We also varied the DTCS service description to provide a more comprehensive and up to date description of the regulated service. The changes to regulation of the DTCS take effect from 1 January 2015. The ACCC is currently consulting on setting regulated price and non-price terms of access for the DTCS.

**Case study: the MTAS declaration review**

Mobile voice and SMS termination services are provided by mobile network operators (MNOs) to other mobile and fixed network operators, to receive and then terminate voice calls and SMS on their network. These services are essential for consumers connected to different networks to communicate with each other. However, as each MNO is in a position to determine which calls or SMS are terminated on their network, they have a monopoly over these services on their network.

The ACCC has regulated mobile voice termination for a number of years. This has helped to promote competition and connectivity in mobile markets and contributed to lower retail prices. In the recent MTAS declaration inquiry, the ACCC decided to continue to regulate these services, but also to regulate SMS termination services for the first time.

The ACCC reached its decision to declare SMS termination for a number of reasons. During the inquiry the ACCC found that charges for SMS termination services were many times greater than the cost of providing the service, had not changed for over a decade, and that commercial negotiations had been unsuccessful in lowering these charges.
The ACCC found that these above cost SMS termination rates were likely having a negative impact on mobile service providers’ ability to compete in the retail market. We also found that high termination prices may also be affecting retail prices. We observed that plans at lower price points, which are often chosen by consumers on lower incomes, often had higher SMS unit prices than plans at the higher price points. We therefore concluded that regulating SMS termination services, which will likely lead to SMS termination prices being closer to the efficient costs of providing the service, would be in the long-term interests of end-users.

The ACCC is currently consulting on setting both price and non-price terms for the MTAS in a final access determination.

**Case study: an update on the fixed services review**

In 2013 the ACCC commenced a review into whether it should continue to regulate wholesale fixed line services (the fixed services review). Fixed line services are services that are generally delivered over Telstra’s copper network—for example, home or business telephone and ADSL broadband services. The fixed services review involved six services that are acquired by telecommunications companies from Telstra in order to supply telephone and broadband services to consumers and businesses.

In April 2014 the ACCC decided to continue regulating these six wholesale fixed line services for another five years. The ACCC also made two adjustments to the scope of fixed line services regulation in order to ensure that services are only regulated where it is necessary to promote effective competition:

- We clarified that wholesale voice services supplied over the NBN will not be regulated. This is because NBN Co is not vertically integrated, it is regulated through its SAU and there is evidence that a competitive market for NBN-based wholesale voice services is developing.
- We decided to regulate wholesale voice services supplied in CBD areas in Sydney, Melbourne, Brisbane, Adelaide and Perth. Previously, Telstra was exempt from having to supply wholesale voice services on regulated terms and conditions in CBD areas, as there are other infrastructure owners that compete with Telstra in selling wholesale services in those areas. However, the ACCC found that infrastructure-based competition in these areas had not been sufficiently effective and this enabled Telstra to charge higher prices for wholesale voice services in CBD areas than in regulated areas.

The ACCC sets terms and conditions of access to these six services in final access determinations (FADs). In April 2014 the ACCC extended and varied the FADs for these services to ensure that the regulated terms and conditions for wholesale voice services would apply in CBD areas and to set a regulated charge for the internal interconnect cable. The ACCC is currently consulting on the terms and conditions that should be included in new FADs for these services, as well as the wholesale ADSL service (which was declared for five years from February 2012).
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 an access determination. An access determination contains a base set of price and non-price terms and conditions of access to a declared service.\(^{101}\)

6.3.1 FAD inquiries in 2013–14

The ACCC must undertake a public consultation process before making a final access determination (FAD). The ACCC commenced three FAD inquiries in 2013–14. The ACCC is also consulting on the non-price terms and conditions and supplementary prices that should be included in the FADs for all declared services.

- **Fixed line services**: On 11 July 2013 the ACCC commenced a public inquiry into making FADs for the seven fixed line services.\(^{102}\) On 24 July 2014 the ACCC released a discussion paper seeking views on setting primary prices for the regulated fixed line services. Some of the key issues for consultation included Telstra’s expenditure and demand forecasts, approach to cost allocation, declining demand and the impact of the NBN.

  On 22 October 2014 the ACCC released a position statement on how it intends to account for the arrangements between Telstra and NBN Co in determining primary prices in this FAD inquiry (see case study below). The ACCC expects to release a draft report for comment in early 2015 and to make the FADs by mid-2015.

- **Domestic transmission capacity service**: The DTCS FAD inquiry commenced on 23 May 2014 with the publication of the joint consultation paper on non-price terms and conditions. On 24 July 2014 the ACCC commenced consultation on the primary price terms for the DTCS to be included in the DTCS FAD.

- **Mobile terminating access service**: The MTAS FAD inquiry also commenced on 23 May 2014. On 1 August 2014 the ACCC released a discussion paper on the approach that the ACCC should take to setting primary prices for a new MTAS FAD. After reviewing submissions, the ACCC decided to set mobile voice termination prices using international benchmarking, and SMS termination prices as a fraction of voice termination prices (based on the capacity required for the two services). The ACCC expects to make a new FAD in mid-2015.

- **Non-price terms and conditions and supplementary prices**: On 23 May 2014 the ACCC published a consultation paper on non-price terms and conditions and supplementary prices that should apply to all declared services. Submissions to the position paper indicated that there is broad industry support for regulating non-price terms and conditions, but further consideration of the preferred approach to adopt in the FADs is required. The ACCC released a discussion paper on non-price terms and conditions on 30 October 2014. The ACCC intends to release a draft report in early 2015. The ACCC is considering supplementary prices alongside the primary pricing issues in the FAD inquiries.

---

101 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.

102 The seven regulated fixed line services are ULLS, WLR, FOAS, FTAS, LCS, LSS and wholesale ADSL.
6.3.2 Variations to existing FADs in 2013–14

While the current FAD inquiries are underway, the ACCC has extended the existing FADs for the fixed line services, MTAS and DTCS until the new FADs come into force. The ACCC also decided to vary the existing FADs for the fixed line services to ensure:

- regulated prices for LCS and WLR services are available in CBD areas from 1 August 2014 (when the new declarations apply), and
- a regulated internal interconnection cable charge is available to access seekers acquiring the ULLS and/or LSS after 30 June 2014, when the charges in the ACCC’s 2012 arbitration decisions expired.

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 2013–14.

Case study: fixed services review and declining demand

Pricing considerations in the fixed services review

We are considering several complex pricing issues in the fixed line services FAD inquiry. Some of the most significant issues are:

- how to account for the impacts of the transition to the NBN in prices for Telstra’s declared fixed line services in the FAD
- how the more general decline in the use of Telstra’s fixed line network should be dealt with in setting prices in the FAD, and
- the approach to the allocation of costs to access services.

In October 2014 we released a position statement on how we intend to account for the arrangements between Telstra and NBN Co regarding the migration of customers to the NBN and NBN Co’s use of Telstra’s infrastructure in determining primary prices in the FAD inquiry. We released this position statement to provide a degree of regulatory certainty during a time of industry transition.

In the position statement, we indicated that we would use the regulatory value of Telstra’s assets, not the higher payments agreed between Telstra and NBN Co in their Definitive Agreements, to adjust the cost base for NBN effects when determining regulated charges. The use of regulatory values maintains the current cost-based approach to setting prices for Telstra’s declared fixed line services and is consistent with common regulatory practice. We also indicated how we intend to implement a regulatory values approach for each of the transaction types under the arrangements between Telstra and NBN Co.
Declining demand

In recent years, demand for fixed line services provided over copper-based networks has been declining in many countries. This trend is likely to occur (or continue to occur) in Australia in coming years, including in the forthcoming regulatory period for fixed line services.

In terms of the regulated fixed line services, declining demand in Australia is driven by three main factors:

- migration of customers to the NBN
- loss of market share through increased competition by access seekers, and
- substitution away from fixed line services towards mobile and other technologies.

The ACCC must consider how declining demand should be treated when determining prices for the declared fixed line services. In particular, the ACCC must determine whether the effects of declining demand should be borne by Telstra or shared with access seekers, and whether different sources of declining demand should be accounted for differently.

In the 2011 FADs, the ACCC’s approach to cost allocation meant that prices did not vary with demand. This meant that Telstra bore the full impact of the decline in demand in the FAD period.

There are a number of options to deal with declining demand in the next regulatory period:

- The impact of declining demand could be shared by access seekers through higher fixed service access prices. This is the option that Telstra has proposed under their current cost allocation proposal. However, dealing with declining demand in this way may exacerbate the problem because increasing prices to access seekers may result in higher retail prices for end-users. Faced with higher prices, more end-users may choose to switch to alternative services.
- The access provider could bear all of the risk of declining demand. This option can have the disadvantage of having a chilling effect on infrastructure investment.
- There are also intermediate options between the first two options. There are a range of complex considerations in determining an appropriate approach.

We will work through these complex issues in the FAD inquiry in 2014–15.
Case study: the Vertigan Review

The Cost-Benefit Analysis and Review of Regulation (the Vertigan Review) examined the future regulatory and policy framework for the communications industry.\textsuperscript{103} The three main elements of the Vertigan Review involved:

- a statutory review of the access arrangements under Part XIC of the CCA
- a review of the industry structure and regulatory framework, including the role of infrastructure competition and NBN Co’s role in the market, and
- an assessment of the costs and benefits of the availability of broadband of differing properties via various technologies.

The ACCC made two submissions to the Vertigan Review.\textsuperscript{104} The ACCC expressed support for:

- continued structural reform (Telstra’s structural separation and a wholesale only NBN)
- the continuation of current regulatory arrangements aimed at ensuring that gains achieved in competition in communications markets are protected and enhanced under a new communications policy framework
- infrastructure-based competition where it is economically efficient, and
- transparency in the use of any subsidies for uneconomic areas, rather than the use of internal subsidies.

The Vertigan Review has released three reports containing its views and recommendations:

- The Statutory Review of Part XIC of the CCA, which expressed support for the broad framework remaining largely unchanged for the time being but with some modifications. The recommended modifications deal mostly with NBN Co’s non-discrimination obligations, regulatory recourse to the ACCC in relation to an NBN Co access agreement and oversight of regulatory decision-making.
- The Independent Cost-Benefit Analysis of Broadband, which confirmed that there are real economic and social advantages in deploying high-speed broadband infrastructure to Australian households and businesses. The report also found that deploying the NBN through a multi-technology mix provides the greatest net benefits to the community and the economy.
- The NBN Market and Regulation Report recommended that infrastructure-based competition should be the guiding policy objective for the delivery of wholesale broadband services. To assist in achieving this objective, it was recommended that NBN Co be disaggregated into competing parts largely based on access technology type. The report also recommended removal of legislative impediments to infrastructure-based competition.

\textsuperscript{103} More information on the Cost-Benefit Analysis and Review of Regulation (the Vertigan Review) can be found at \url{http://www.communications.gov.au/broadband/national_broadband_network/cost-benefit_analysis_and_review_of_regulation}.

\textsuperscript{104} The ACCC’s submissions to the Vertigan Review can be found on the ACCC website at \url{https://www.accc.gov.au/about-us/consultations-submissions/accc-submissions#communication}.  

56
The ACCC welcomes the Vertigan Review’s recommendations on infrastructure-based competition. The ACCC recognises that infrastructure-based competition, where efficient, drives dynamic efficiencies including product differentiation, innovation and timely investment. At an appropriate time, the separation of NBN Co into competing entities based on delivery technology is an opportunity to provide a platform for long-term infrastructure-based competition. The ACCC recommends that the government use this opportunity to put in place arrangements that provide for future disaggregation of NBN Co to facilitate infrastructure-based competition prior to NBN Co’s privatisation.

While government and industry respond to the Vertigan Review’s recommendations, the ACCC’s key challenges are to ensure that:

- access to existing networks (in particular Telstra’s copper access network) remains competitive and thereby continuing to meet the needs of end-users until the NBN is completed.
- competition is preserved and disruption, for both industry and consumers, is minimised during the period of transition to the NBN; and the longer term industry structure arising from the multi-technology mix results in lasting competition benefits to consumers.
7 NBN and superfast networks provisions

Key points
• In December 2013 we accepted a special access undertaking from NBN Co.
• During the year we approved several aspects of the dispute resolution arrangements in the special access undertaking.
• We also continued to oversee compliance with the non-discrimination and level playing field provisions of the access framework.

7.1 Overview

This chapter outlines the ACCC’s 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, including mechanisms for dispute resolution (sections 7.2 and 7.3)
• NBN points of interconnection (section 7.4)
• rules about non-discriminatory access to services provided over the NBN and superfast networks (section 7.5), and
• ‘level playing field’ requirements for superfast networks (section 7.6).

7.2 Declaration of NBN services

NBN services can be declared in three ways:
• NBN Co can provide the ACCC with a special access undertaking (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.\(^{105}\)

7.2.1 NBN special access undertaking

On 13 December 2013 the ACCC accepted an SAU that was lodged by NBN Co on 19 November 2013. The SAU establishes principles for regulating access to the NBN until June 2040. The SAU forms a key part of the framework for governing prices and other terms upon which NBN Co will supply services to telecommunications companies over the NBN. This is the first time the ACCC has accepted an undertaking of this duration. The acceptance of the SAU will assist NBN Co and access seekers to negotiate commercial agreements.

The ACCC’s decision follows the submission and withdrawal of two other undertakings by NBN Co and over three years of discussions between the ACCC, NBN Co, access seekers and other key stakeholders.

\(^{105}\) See section 152AXB of the CCA.
Case study: NBN special access undertaking

The ACCC's decision to accept NBN Co's SAU followed extensive consultation with industry and careful assessment by the ACCC. The SAU is a key part of the regulatory framework which will regulate the price and non-price terms and conditions relating to access to the NBN and the services provided over the NBN.

The ACCC's acceptance of NBN Co's SAU means telecommunications companies can negotiate effectively with NBN Co for access to its optical fibre, wireless, satellite and other related services, which can then be used to provide downstream retail services to consumers. In making its decision to accept the SAU, the ACCC was satisfied that the SAU is reasonable and will promote the long-term interests of consumers and businesses that use services provided over the NBN.

The SAU incorporates a number of features that balance the need to promote long-term price and investment certainty, with the flexibility to respond to changing circumstances—such as changes in technology or government policy direction. For example, the SAU sets price controls that provide price certainty and create incentives for NBN Co to operate and invest efficiently. The SAU also provides for ACCC oversight over the withdrawal of products and protects against NBN Co making variations to an existing product that would reduce its functionality, performance or features.

The SAU commenced on December 2013 and will expire in June 2040.

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 agreement (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. NBN Co published two SFAAs on its website during the period.¹⁰⁶

7.3 Dispute resolution arrangements

The SAU requires NBN Co to include provisions in any SFAA for dispute resolution through expert determination or panel arbitration. The SAU confers some powers on the ACCC regarding the dispute resolution arrangements between NBN Co and its customers. For example, the ACCC has the power to give directions to the resolution advisor regarding the performance of his or her duties.

On 3 April 2014 the ACCC approved the appointments of a resolution advisor and a pool of experts from whom a panel of arbitrators will be selected. The ACCC also approved the terms of appointment for the resolution advisor, the pool members and the panel. On 8 May 2014 the ACCC approved a list of pool members from whom the panel will be selected in a dispute. On 10 October 2014 the ACCC approved the dispute guidelines that are to be applied by the panel in making decisions on resolving disputes.

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. Under s. 151DB of the CCA, the ACCC must prepare a written list of POIs to the NBN and publish this list on its website. On 5 November 2012 the ACCC published the listed points of interconnection.

In 2013 the ACCC conducted a review of the policies and procedures relating to the identification of listed POIs. The ACCC prepared a report on the review which was given to the Minister in early July 2013. It found that the process of applying competition criteria and planning rules to determine the location of POIs was effective in identifying POI locations that were consistent with the government’s semi-distributed approach. The report was tabled in Parliament in December 2013.

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.

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 differences

The ACCC must also 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 is also required to 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 2013–14 the ACCC published 14 statements of differences on its website.

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 2013–14 the ACCC did not seek orders to enforce these provisions.

---

107 As required by s. 151DC of the CCA.
109 Sections 152ARA and 152AXC of the CCA.
110 The ACCC register is available at: http://registers.accc.gov.au/content/index.phtml/itemId/1030649.
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.¹¹¹ 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 in relation to:

- Telstra which has conditional Ministerial exemptions from the level playing field provisions for both the South Brisbane exchange service area for two years until 31 December 2015 and specified Telstra Velocity networks until 1 July 2018.
- TransACT which has conditional Ministerial exemptions for its upgraded VDSL networks, specified TransACT fibre networks and very small scale TransACT networks until 1 July 2018.

¹¹¹ 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 2013–14 the ACCC investigated two superfast carriage service providers for potential non-compliance with these provisions—TPG (discussed in the case study below) and another, the investigation of which is ongoing.

Case study: TPG fibre-to-the-basement roll out

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 to 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. The complaint suggested that TPG’s pre-existing fibre networks were not capable of supplying superfast carriage services to residential or small business customers as at 1 January 2011. Further, the complaint stated that by proceeding with its current plan, or in combination with other investments made after 1 January 2011, TPG is seeking to make those networks capable of supplying superfast carriage services without complying with the level playing field provisions.

The ACCC conducted an extensive investigation and came to the view that TPG did not breach the level playing field provisions in proceeding with its proposed rollout. 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. The ACCC also 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 to be provided by TPG over its FTTB networks should be the subject of access regulation. Among other matters, the inquiry will consider whether regulation is necessary to ensure that consumers in TPG connected buildings can benefit from competitive retail markets for high speed broadband services. This declaration inquiry is discussed further in section 6.2.1.

On 12 December 2014 the Minister for Communications made the Carrier Licence Conditions (Networks supplying Superfast Carriage Services to Residential Customers) Declaration 2014. This carrier licence condition will apply to designated networks supplying a superfast carriage service to residential customers, such as fibre-to-the-basement networks being rolled out in multi-dwelling units, from 1 January 2015. The ACCC is currently considering the implications of the carrier licence condition and will provide an update on the declaration inquiry in early 2015.
8 Telstra’s structural separation and other Telecommunications Act provisions

Key points

• We are continuing work to ensure a smooth transition to the NBN and a competitive new industry structure. We do this by overseeing Telstra’s implementation of, and compliance with, its structural separation undertaking and migration plan.

• A number of challenges have emerged in migrating end-user services from Telstra’s copper network to the fibre NBN. To minimise the risk of service disruption to end-users migrating to the NBN, we consented to revised disconnection processes developed by Telstra and NBN Co.

• We are working with government and industry 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.

• We continued to work to improve access to telecommunications facilities and actively participated in industry reviews of the local number portability arrangements.

8.1 Overview

This chapter outlines the ACCC’s powers and functions performed under the Telecommunications Act. Our main activities under the Telecommunications Act for 2013–14 include:

• implementing and considering variations to Telstra’s structural separation undertaking (SSU) and migration plan (section 8.2)

• monitoring Telstra’s compliance with its SSU and migration plan and responding to breaches with appropriate remedies (section 8.2)

• regulating access to telecommunications facilities, including varying the Facilities Access Code and arbitrating disputes about access to facilities (sections 8.3 and 8.4), and

• contributing to industry reviews about local number portability (section 8.5).

The Telecommunications Act provides the ACCC with a variety of other functions and powers. This includes the power to conduct public inquiries into carriage services, content services and the telecommunications industry, and the power to issue directions and formal warnings to carriers regarding carrier licence conditions. In some cases, the Telecommunications Act requires the ACCC to be consulted before a decision is made by the Minister or another relevant agency. For example, the ACMA must consult the ACCC before it varies a telecommunications industry standard or the telecommunications numbering plan.
8.2 Structural separation of Telstra

Telstra’s SSU implements structural separation through migration of end-users to the NBN. The SSU outlines how Telstra will progressively cease to supply telephone and broadband services over its copper and HFC networks and commence to supply 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 retail business units on equivalent terms. These measures 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. These include providing the ACCC with monthly confidential compliance reports, quarterly public reports on operational equivalence, and six-monthly public and quarterly confidential Telstra Economic Model reports (which provide transparency over Telstra’s internal and external wholesale prices).

8.2.1 Implementation of the migration plan

Telstra’s migration plan sets out processes that Telstra will follow when disconnecting services from its copper and HFC networks as part of the migration to the NBN. When the migration plan was lodged for ACCC approval, Telstra was not able to establish or specify a number of processes contemplated by the migration plan principles determined by the Minister. Telstra has now lodged five of the six ‘required measures’ with the ACCC for approval. The final required measure relates to disconnection processes for Special Services and is not required to be lodged for some time.\(^{112}\)

On 26 September 2013 the ACCC approved three of the required measures. These relate to the disconnection of services (from copper or HFC networks) that have not migrated to the NBN within the applicable switchover period, and the building of copper lines in NBN roll out regions to supply services that cannot yet be provided over the NBN.

On 22 May 2014 the ACCC approved a required measure relating to a process referred to as ‘pull through’. Pull through refers to the use of an existing copper line or HFC cable to pull a new NBN fibre cable through the lead-in conduit to a premise. In some limited cases, NBN Co may use pull through to connect premises in the fibre-to-the-premises areas of the NBN rollout. This process will cause an outage in a customer’s communications services. The approved measures set out how Telstra will obtain the approval from its wholesale customers for NBN Co to use the pull through process as well as notify wholesale customers if the process is not successful.

The ACCC is still considering Telstra’s proposed required measure in relation to its NBN Information Security Plan. Telstra is required to implement this plan to ensure that any information Telstra receives from NBN Co for the purpose of the commencement of supply of fibre services or the disconnection of copper services cannot be used by Telstra to gain an unfair commercial advantage over wholesale customers.

---

112 Special Services refer to services currently provided over the Telstra copper network that cannot immediately be made available over the NBN fibre network.
8.2.2 Variations to the SSU and migration plan

Telstra may submit proposed variations to the SSU or migration plan to the ACCC for approval. In June 2013 Telstra submitted a variation to its migration plan in order to change its ‘cease sale’ obligations. The cease sale obligations prevent Telstra from supplying new copper services to premises in regions where NBN Co has started to supply fibre services. Telstra’s proposed variation would see Telstra being allowed to provide new copper services to premises that are not yet NBN serviceable, even though they are in an NBN rollout region. This is to minimise the risk that consumers are left without access to either an NBN or copper service for a protracted period of time. The ACCC agreed to the variation and will formally approve it once enabling regulation has been made by the government.

In May 2014 the ACCC consented to Telstra and NBN Co implementing revised disconnection processes for the initial NBN roll out regions. This followed some challenges experienced in connecting end-users to the NBN fibre network and migrating end-users services from Telstra’s copper network. These revised arrangements provide for greater case management for transitioning customers to the NBN which minimises the risk of service disruption to end-users. The ACCC publicly clarified, by way of a media release, that these safeguards were in place to protect consumers facing disconnection.113

The ACCC is now working with government and industry to develop a robust long-term migration model, with a focus on promoting competition and protecting consumer interests during the implementation of the government’s revised NBN policy.

8.2.3 Telstra’s compliance with the SSU and migration plan

Each financial year the ACCC must monitor and report to the Minister on Telstra’s breaches of the SSU. In May 2014 the Minister for Communications tabled the ACCC’s annual report for 2012–13. The report identified a number of breaches of the SSU during 2012–13.114 Telstra brought all breaches to the ACCC’s attention pursuant to the SSU’s monthly reporting obligations.

Breaches that occurred in 2012–13 fall into two broad categories:
• failing to properly ring fence the protected information of Telstra’s wholesale customers
• failing to introduce ADSL service enhancements contemporaneously to retail and wholesale customers.

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.

8.2.4 Possible breaches of the overarching equivalence commitment

The SSU also contains an overarching commitment requiring Telstra to provide equivalent outcomes for wholesale customers to those achievable by Telstra’s retail businesses. Where Telstra reports a possible breach of this commitment to the ACCC, it must submit a proposal to the ACCC outlining the steps it proposes to take to remedy the possible breach (a rectification proposal).

Following stakeholder consultation, the ACCC accepted rectification proposals from Telstra in relation to the breaches described in table 8.1.

**Table 8.1  ACCC accepted rectification proposals**

<table>
<thead>
<tr>
<th>Date of acceptance</th>
<th>Description of possible equivalence breach</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 2013</td>
<td>A small number of wholesale orders for service upgrades from ADSL1 to ADSL2+ were not allowed to progress by Telstra’s online ordering system, when similar retail orders were allowed to progress.</td>
</tr>
<tr>
<td>July 2013</td>
<td>Two ‘ADSL profiles’ (which assist with managing interference on the copper line) available for retail ADSL services were not made available for wholesale ADSL services.</td>
</tr>
<tr>
<td>July 2014</td>
<td>Different processes for advising Telstra retail customers and wholesale customers of ‘no fault found’ following remote testing of telephone line faults by Telstra.</td>
</tr>
<tr>
<td>September 2014</td>
<td>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’.</td>
</tr>
<tr>
<td>October 2014</td>
<td>Telstra’s comparative performance in repairing wholesale and retail faults in relation to basic telephone services.</td>
</tr>
</tbody>
</table>

### 8.3 Access to facilities

The Telecommunications Act imposes a general obligation on access providers to give other communications providers access to telecommunications facilities in order for them to install their own equipment. It also gives carriers powers and immunities regarding the installation and maintenance of certain telecommunications facilities.

A ‘facility’ is broadly defined to include:
- any part of a telecommunications network, or any structure used in, or in connection with, a telecommunications network, such as lines, equipment, poles and ducts
- land, buildings and structures in, or on which, those facilities are located, and
- customer equipment or customer cabling connected to the network.

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 (refer to section 8.4). The ACCC may also make a code setting out conditions for the provision of access to facilities.

In 1999 the ACCC published *A Code for Access to Telecommunications Transmission Towers, Sites of Towers and Underground Facilities* (the Facilities Access Code) to facilitate timely and fair access to facilities. In September 2013 the ACCC varied the Facilities Access Code following a public inquiry. The key change to the Facilities Access Code was to make timeframes for accessing facilities a mandatory condition. This will ensure that all carriers are treated equally when making such a request.

Facilities access service issues (including pricing issues) are also being considered as part of the DTCS, MTAS and Fixed Line Services final access determination public inquiries (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 telecommunications transmission towers and underground facilities
• access to supplementary facilities (such as exchanges), and
• provision of pre-selection and number portability.

In 2012 the ACCC was notified of three facilities access disputes by Vocus Fibre Pty Ltd, Adam Internet Pty Ltd and Chime Communications Pty Ltd. The disputes concerned a price variation of Telstra’s ducts and Telstra Exchange Building Access (TEBA) service charges. The ACCC ceased arbitrating the disputes in July 2014 following a Full Federal Court decision that there was no failure to agree for the purposes of the Telecommunications Act.115 The Court found that the parties had reached agreement and were merely disputing the interpretation of the terms and conditions of the agreement and their application to a particular set of facts.

8.5 Number portability

Number portability allows consumers to change their service provider and retain the same telephone number. The ACMA is responsible for developing and administering a numbering plan, which may include rules about number portability.116 The ACMA cannot insert rules about number portability into the numbering plan unless 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.

During 2013–14 the ACCC did not give the ACMA any directions on number portability. However, the ACCC participated in two reviews of the number portability arrangements by the Communications Alliance. One of these reviews resulted in incremental changes to the Local Number Portability Industry Code, while the other is continuing.

---

115 Telstra Corporation Limited v Vocus Fibre Pty Ltd [2014] FCAFC 77.
116 Part 22, Division 2 of the Telecommunications Act.
9 Radiocommunications Act

Key points

- In December 2013 we accepted a variation to the digital radio access undertakings.
- In February 2014 we made a submission to a review of digital radio regulation.

9.1 Overview

The ACCC has limited responsibilities under the Radiocommunications Act 1992, including assessing and monitoring access undertakings for the digital radio multiplex transmission (DRMT) service and responsibilities regarding radiofrequency spectrum.

9.2 Variation of digital radio access undertakings

The ACCC administers the access regime for the DRMT service. This service refers to the process of multiplexing (or bringing together) separate streams of content from individual radio broadcasters and transmitting a combined stream to end-users.

The terms and conditions for access to the DRMT service are set out in the digital radio access undertakings. During 2013–14 the ACCC continued to monitor compliance with these undertakings. On 19 December 2013 the ACCC accepted a variation of the digital radio access undertakings under s. 118N(3) of the Radiocommunications Act. DRMT Licensees requested the variation to, among other things, facilitate new investments in the DRMT service (specifically on-channel repeaters) to improve service coverage and quality in existing broadcast areas.

9.3 Submission to the review of digital radio

On 5 February 2014 the ACCC made a submission to the Department of Communications’ review of digital radio which is examining the regulation of digital radio services in Australia, including the access regime administered by the ACCC. The access regime seeks to ensure that digital radio broadcasters can access, on reasonable terms, the required service to transmit their audio content to listeners.

The ACCC submission observed that the access regime is working effectively and remains important to facilitate access to the required service. The submission noted that the access regime should underpin any expansion to digital radio services. This will ensure that more consumers are able to access the digital radio services of a variety of broadcasters.

9.4 Radiofrequency spectrum

The ACCC has some spectrum responsibilities under the Radiocommunications Act, including assessing secondary acquisitions of spectrum through sharing arrangements. If requested, the ACCC may also provide advice to the Minister on setting of competition limits in new spectrum allocations.

Given the importance of spectrum in the provision of mobile services, the ACCC continues to monitor markets for spectrum and the outcomes of the 2013 digital dividend auction. The digital dividend auction reallocated spectrum previously used for analogue television services for use by mobile service providers.
Appendix A: Types of internet access platforms

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

**DSL**, including asymmetric DSL (ADSL) like dial-up, uses the copper network to provide an internet service. DSL operates at higher frequencies than voice services, and is therefore 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 current 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 FTTC 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-speed broadband services, in addition to pay TV and voice services.

**Fibre** refers to optical fibre which can be used to provide high-speed broadband services by transmitting information as light pulses. Optical fibre is capable of carrying much more information than conventional copper wire and is in general not subject to electromagnetic interference and the need to retransmit signals.

**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).

**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.

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.
## Contents

1. Key messages .............................................. 77
2. Introduction ................................................ 79
   2.1 Purpose of the report ............................... 79
   2.2 Structure of the report ........................... 79
   2.3 Collection of data for the report .......... 79
   2.4 Methodologies ...................................... 80
   2.5 Indices used in the report .................... 81
3. Telecommunications services index ............... 82
   3.1 Main changes ....................................... 82
4. Fixed-line voice services index ..................... 84
   4.1 Overall changes .................................. 84
   4.2 PSTN sub-index .................................. 86
   4.3 VoIP sub-index .................................... 93
5. Mobile services index .................................. 95
   5.1 Overall changes .................................. 95
   5.2 Prepaid vs post-paid sub-indices .......... 96
   5.3 Price changes by user groups ............... 97
6. Internet services index ................................ 99
   6.1 Overall changes .................................. 99
   6.2 Points contribution .............................. 100
   6.3 Wireless internet services ...................... 100
   6.4 DSL internet services ........................... 100
   6.5 Cable internet services ......................... 100
   6.6 NBN internet services ........................... 101
Appendix A: Tables ......................................... 102
Appendix B: Methodologies for determining price change ........ 115
   B1 Index model ......................................... 115
      B1.1 The fixed-line voice services index 116
      B1.2 The mobile services index ............... 117
      B1.3 Internet services index .................... 117
   B2 Other methodology issues ...................... 118
      B2.1 Real prices .................................... 118
      B2.2 The goods and services tax .............. 118
      B2.3 Quality of service ........................... 119
      B2.4 Percentage changes and points contribution 119
      B2.5 Record keeping and reporting rule for the Division 12 report 119
### List of tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Real price changes for components of the telecommunications services index</td>
<td>78</td>
</tr>
<tr>
<td>2.1</td>
<td>List of companies required to report under the Division 12 RKR</td>
<td>80</td>
</tr>
<tr>
<td>3.1</td>
<td>Real price changes for components of the telecommunications services index</td>
<td>83</td>
</tr>
<tr>
<td>4.1</td>
<td>Year-on-year ‘real’ percentage changes in the fixed-line voice service index by service over the last decade</td>
<td>85</td>
</tr>
<tr>
<td>4.2</td>
<td>Year-on-year ‘real’ percentage changes in the fixed-line voice service index by service type over the last decade</td>
<td>85</td>
</tr>
<tr>
<td>4.3</td>
<td>Year-on-year ‘real’ percentage change in the PSTN sub-index by service type over the last decade</td>
<td>87</td>
</tr>
<tr>
<td>4.4</td>
<td>Year-on-year ‘real’ percentage changes in the PSTN service index by consumer group over the last decade</td>
<td>88</td>
</tr>
<tr>
<td>4.5</td>
<td>Year-on-year ‘real’ percentage changes in the PSTN residential service index by service type over the last decade</td>
<td>89</td>
</tr>
<tr>
<td>4.6</td>
<td>Year-on-year ‘real’ percentage changes in the PSTN business index by small business and other business over the last decade</td>
<td>90</td>
</tr>
<tr>
<td>4.7</td>
<td>Year-on-year ‘real’ percentage changes in the PSTN business index by service type over the last decade</td>
<td>91</td>
</tr>
<tr>
<td>4.8</td>
<td>Year-on-year ‘real’ percentage changes in the VoIP service index by service component, 2013–14</td>
<td>94</td>
</tr>
<tr>
<td>6.1</td>
<td>Year-on-year ‘real’ percentage changes in the internet services index by service type</td>
<td>99</td>
</tr>
<tr>
<td>A1</td>
<td>Telecommunications services index, 1997–98 to 2013–14</td>
<td>103</td>
</tr>
<tr>
<td>A2</td>
<td>Points contribution to telecommunications services index, 2000–01 to 2013–14</td>
<td>103</td>
</tr>
<tr>
<td>A3</td>
<td>Fixed-line voice services index by technology; PSTN and VoIP, 1997–98 to 2013–14</td>
<td>104</td>
</tr>
<tr>
<td>A4</td>
<td>Fixed-line voice services index by service, 1997–98 to 2013–14</td>
<td>104</td>
</tr>
<tr>
<td>A5</td>
<td>PSTN sub-index by service; residential and business, 1997–98 to 2013–14</td>
<td>105</td>
</tr>
<tr>
<td>A6</td>
<td>PSTN business services index, small and other business, 1997–98 to 2013–14</td>
<td>107</td>
</tr>
<tr>
<td>A7</td>
<td>Points contribution to PSTN sub-indices by service, residential and business, 1998–99 to 2013–14</td>
<td>108</td>
</tr>
<tr>
<td>A8</td>
<td>VoIP services index by service, 2012–13 to 2013–14</td>
<td>110</td>
</tr>
<tr>
<td>A9</td>
<td>VoIP Points Contribution to VoIP sub-index, 2013–14</td>
<td>110</td>
</tr>
<tr>
<td>A10</td>
<td>Mobile services index, 1997–98 to 2013–14</td>
<td>111</td>
</tr>
<tr>
<td>A11</td>
<td>Internet services index by network type and user group, 2006–07 to 2013–14</td>
<td>111</td>
</tr>
<tr>
<td>A12</td>
<td>Points contribution to internet services index, 2007–08 to 2013–14</td>
<td>113</td>
</tr>
<tr>
<td>B1</td>
<td>List of companies required to report under the Division 12 RKR</td>
<td>119</td>
</tr>
</tbody>
</table>
# List of figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 3.1</td>
<td>The telecommunications services index, 2006−07 to 2013−14</td>
<td>82</td>
</tr>
<tr>
<td>Figure 3.2</td>
<td>Points contribution of the fixed-line voice, mobile and internet services indices to the movement in the telecommunications services index, 2013−14</td>
<td>83</td>
</tr>
<tr>
<td>Figure 4.1</td>
<td>The fixed-line voice service indices by service, 1997−98 to 2013−14</td>
<td>84</td>
</tr>
<tr>
<td>Figure 4.2</td>
<td>Points contribution of PSTN and VoIP services to the changes in the fixed-line voice index, 2013−14</td>
<td>85</td>
</tr>
<tr>
<td>Figure 4.3</td>
<td>Points contribution of fixed-line voice services to the changes in the fixed-line voice index, 2013−14</td>
<td>86</td>
</tr>
<tr>
<td>Figure 4.4</td>
<td>The PSTN services index for residential and business consumers, 1997−98 to 2013−14</td>
<td>86</td>
</tr>
<tr>
<td>Figure 4.5</td>
<td>Points contribution of PSTN services to the change in the PSTN sub-index, 2013−14</td>
<td>87</td>
</tr>
<tr>
<td>Figure 4.6</td>
<td>Comparison of share of total consumer PSTN expenditure by service component, 1997−98 and 2013−14</td>
<td>88</td>
</tr>
<tr>
<td>Figure 4.7</td>
<td>Points contribution of residential PSTN services to the changes in the residential PSTN sub-index, 2013−14</td>
<td>89</td>
</tr>
<tr>
<td>Figure 4.8</td>
<td>The PSTN business services index by small and other businesses, 2013−14</td>
<td>90</td>
</tr>
<tr>
<td>Figure 4.9</td>
<td>Points contribution by individual PSTN service component to the change in the overall business index, 2013−14</td>
<td>91</td>
</tr>
<tr>
<td>Figure 4.10</td>
<td>Year-on-year percentage changes in the price index by PSTN service component for small business consumers, 2009−10 to 2013−14</td>
<td>92</td>
</tr>
<tr>
<td>Figure 4.11</td>
<td>Year-on-year percentage changes in the price index by PSTN service component for other business consumers, 2009−10 to 2013−14</td>
<td>93</td>
</tr>
<tr>
<td>Figure 4.12</td>
<td>The VoIP services index by service component, 2012−13 to 2013−14</td>
<td>93</td>
</tr>
<tr>
<td>Figure 4.13</td>
<td>Points contribution of VoIP service components to the changes in the VoIP sub-index, 2013−14</td>
<td>94</td>
</tr>
<tr>
<td>Figure 5.1</td>
<td>Overall mobile services index, 1997−98 to 2013−14</td>
<td>95</td>
</tr>
<tr>
<td>Figure 5.2</td>
<td>Year-on-year percentage changes in the overall mobile services index and the post-paid and prepaid sub-indices, 2009−10 to 2013−14</td>
<td>96</td>
</tr>
<tr>
<td>Figure 5.3</td>
<td>Points contribution by prepaid and post-paid indices to the change in the mobile services index, 2013−14</td>
<td>96</td>
</tr>
<tr>
<td>Figure 5.4</td>
<td>Year-on-year percentage change in the price index for post-paid services by user group, 2009−10 to 2013−14</td>
<td>97</td>
</tr>
<tr>
<td>Figure 5.5</td>
<td>Year-on-year percentage change in the price index for prepaid services by user group, 2009−10 to 2013−14</td>
<td>98</td>
</tr>
<tr>
<td>Figure 6.1</td>
<td>Points contribution by NBN, wireless, DSL and cable indices to the change in internet services index, 2013−14</td>
<td>100</td>
</tr>
</tbody>
</table>
1 Key messages

Australian consumers continued to benefit from lower prices for telecommunications services in 2013–14. Real prices for all telecommunications services, with the exception of National Broadband Network (NBN) services, fell during the reporting period.

Overall prices for telecommunications services fell, in real terms, by 2.7 per cent—the largest decline since 2010–11—reflecting mobile services’ greater contribution (56.0 per cent) compared to fixed-line voice (21.4 per cent) and internet services (22.6 per cent). This continues the long term decline in the price of telecommunications services which has now fallen in real terms by 23.0 per cent since 2006–07.

Real prices for fixed-line voice services showed the largest decline (5.2 per cent) during the reporting period, the largest annual price decrease since 2010–11. This was mainly driven by price reductions for PSTN services (5.1 per cent). In real terms, the lower prices for fixed-line voice services in 2013–14 were driven by across the board declines in service charges. In particular, the real price of the fixed-to-mobile component has seen a double digit decline since 2010–11.

Residential and business customers both benefited from lower PSTN prices in 2013–14, with small business customers benefiting from a decline of 4.0 per cent compared to the 1.1 per cent decline in 2012–13. Other business customers benefited from a decline of over 6 per cent during the reporting period.

In real terms, the prices of mobile services fell by 2.0 per cent during the reporting period, which is the largest price decrease since 2010–11. Mobile prices have fallen in every reporting period since 2009–10 and are now 52.7 per cent lower than they were in 1997–98.

Overall, real prices for internet services fell by 2.2 per cent over 2013–14. Average real prices for wireless internet services fell by 2.7 per cent over 2013–14 which is the first decrease in three years. This reflects the fact that most carriers did not change nominal prices over 2013–14.

There was a real price increase for NBN internet services (4.6 per cent) but this had a limited impact on the overall price change for internet services because of its small weight in the overall internet services index. The increase for NBN internet services was due to a number of retail service providers increasing the price of some of their NBN internet plans. While the prices increased, end-users of these NBN plans were not necessarily worse off, as many of the plan price increases were also accompanied by increases in the data inclusions for the relevant plans.

While prices for telecommunications services have continued to fall in real terms since telecommunications price monitoring first started, as the telecommunications industry transitions to the NBN there may be changes to the price trends observed.

Table 1.1 below sets out the key results for the 2013–14 reporting period and overall price changes since the ACCC commenced reporting on the prices of telecommunications services. Analysis of these results is also set out in the ACCC’s Telecommunications Competitive Safeguards report for 2013–14.

---

1 Based on each service’s share of the total 2013–14 revenue for fixed-line voice, mobile and internet services.
## Table 1.1 Real price changes for components of the telecommunications services index

<table>
<thead>
<tr>
<th>Service Type</th>
<th>YoY % change (2013–14)</th>
<th>Sub-index weight (2013–14)</th>
<th>% change since base year</th>
<th>Base year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall telecommunications services</td>
<td>−2.7</td>
<td>−23.0</td>
<td></td>
<td>2006–07</td>
</tr>
<tr>
<td>Fixed-line voice services</td>
<td>−5.2</td>
<td>100</td>
<td>−49.8</td>
<td>1997–98</td>
</tr>
<tr>
<td>PSTN</td>
<td>−5.1</td>
<td>99.1</td>
<td>−49.8</td>
<td>1997–98</td>
</tr>
<tr>
<td>VoIP</td>
<td>−6.6</td>
<td>0.9</td>
<td>−6.6</td>
<td>2012–13</td>
</tr>
<tr>
<td>Mobile services</td>
<td>−2.0</td>
<td>100</td>
<td>−52.7</td>
<td>1997–98</td>
</tr>
<tr>
<td>Post-paid services</td>
<td>−1.9</td>
<td>83.2</td>
<td>−16.8</td>
<td>2006–07</td>
</tr>
<tr>
<td>Prepaid mobile services</td>
<td>−2.5</td>
<td>16.8</td>
<td>−29.1</td>
<td>2006–07</td>
</tr>
<tr>
<td>Internet services</td>
<td>−2.2</td>
<td>100</td>
<td>−22.6</td>
<td>2006–07</td>
</tr>
<tr>
<td>Wireless services</td>
<td>−2.7</td>
<td>31.0</td>
<td>−32.4</td>
<td>2007–08</td>
</tr>
<tr>
<td>DSL services</td>
<td>−2.0</td>
<td>55.0</td>
<td>−20.0</td>
<td>2006–07</td>
</tr>
<tr>
<td>Cable services</td>
<td>−2.2</td>
<td>12.9</td>
<td>−12.4</td>
<td>2006–07</td>
</tr>
<tr>
<td>NBN internet services</td>
<td>4.6</td>
<td>1.1</td>
<td>4.6</td>
<td>2012–13</td>
</tr>
</tbody>
</table>

Note: The sub-index weight is based on each service’s share of the 2013–14 revenue for the relevant sub-index—fixed-line voice services, mobile services and internet services.
2 Introduction

2.1 Purpose of the report

Each financial year, the ACCC is required to report to the Minister for Communications on prices paid by Australian consumers for telecommunications services.²

As in the past, the ACCC has chosen to fulfil this requirement by reporting how real prices for fixed-line voice, mobile and internet services have changed for Australian consumers. This report sets out the ACCC’s findings for 2013–14.

2.2 Structure of the report

The structure of this report is based on the ACCC’s telecommunications services index which has three components—the fixed-line voice services index, the mobile services index and the internet services index.

Chapter four presents the annual real price changes in the fixed-line voice services index. This index has two sub-indices—PSTN and VoIP. The PSTN sub-index is further divided into PSTN residential and PSTN business components. The PSTN business component includes real price changes for ‘small businesses’ and ‘other businesses’.

Chapter five presents the annual real price changes in the mobile services index. This index has two sub-indices—post-paid mobile and prepaid mobile.

Chapter six presents the annual real price changes in the internet services index. The internet services index has four sub-indices—wireless services, digital subscriber line (DSL) services, cable services and NBN broadband services.

These chapters show trends in the indices as well as how the sub-indices contribute to the overall index. The point-contributions figures presented in these chapters provide an indication as to how relevant a sub-index may be to the overall index. These chapters also provide year-on-year (YoY) real price changes over the last decade for the indices.

2.3 Collection of data for the report

This report is prepared based on information collected from carriers using a combination of the Division 12 Record-Keeping and Reporting Rule (Division 12 RKR) (July 2013 version) and information informally requested from carriers by the ACCC.

Table 2.1 shows which companies are currently required to report on fixed-line voice (PSTN and VoIP), mobile and internet services under the Division 12 RKR.

² Section 151CM (1)(a) of the Competition and Consumer Act 2010.
Changes in the prices paid for telecommunications services in Australia, 2013–14

Table 2.1 List of companies required to report under the Division 12 RKR

<table>
<thead>
<tr>
<th>Category name</th>
<th>Reporting carriers and carriage service providers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed-line voice services information</td>
<td>Telstra, Singtel Optus, iiNet, TPG</td>
</tr>
<tr>
<td>Mobile services information</td>
<td>Telstra, Singtel Optus, VHA</td>
</tr>
<tr>
<td>Internet services information (including wireless, DSL, cable and NBN)</td>
<td>Telstra, Singtel Optus, iiNet, VHA, TPG</td>
</tr>
</tbody>
</table>

Revised Division 12 RKR for the 2013–14 reporting period

On 16 July 2013, the ACCC revised the Division 12 RKR following consultation with industry. The revision reflects changes in the telecommunications industry both in terms of services—for example, the decline in 2G mobile services and dial-up internet services—and market structure—a number of acquisitions have taken place in recent years.

The main changes require carriers to report:

- mobile services information on an aggregated level instead of by mobile technology (GSM, 3G and 4G)
- VoIP services with comparable functionality and quality to PSTN voice services
- internet services provided over the NBN.

The July 2013 RKR applies to the 2013–14 reporting period and future reporting periods.

2.4 Methodologies

Measuring price changes in telecommunications services is complex due to rapid changes in the industry driven by technological innovations. As a result of these changes and innovations, new strategies are adopted by carriers to differentiate their services, which results in continued changes to product offerings, dimensions and pricing structures.

Change in quality of service or increases in plan inclusions (e.g. in terms of data and call minutes) are not captured in this report. Therefore the effective change in real values that the end-users benefit from may differ from the price declines reported (see appendix B1 for more details). For example, increases in broadband data allowances have resulted in the effective price per gigabyte (GB) decreasing significantly from approximately $30/GB in 2007 to less than $1/GB today.

For the purpose of this report, the ACCC uses two different methodologies to calculate price changes in real terms.

For fixed-line voice services, price changes are estimated using a yield approach. The yield for each particular fixed-line voice service component is calculated from available revenue and usage data. Changes in these yields are then weighted by revenue shares of relevant service components and aggregated into the fixed-line voice services price index to derive price movements.

For mobile and internet services, the ACCC estimates prices using a plan approach. Under this approach, price changes are estimated by determining the average spend of five types of consumers and monitoring the change in price of the most appropriate plan from each

3 The complete table is at Schedule A of the July 2013 Division 12 RKR.
5 These five types of consumers are determined based on their monthly spend on telecommunications services and consists of ‘very low’, ‘low’, ‘average’, ‘high’ and ‘very high’ spend consumers.
carrier for each group. Bill samples\(^6\) are used to construct average spend bundles consumed by each consumer group. Price changes are then estimated by comparing the prices of the chosen plans across the reporting period.

Both approaches have some limitations. Prices calculated under the yield approach are influenced by how revenue is allocated across services, which is particularly relevant with respect to plans with included call credits and bundled products. In relation to the plan approach, as a plan has a number of variables such as included call minutes, texts and data, the real value of the plan can vary from period to period independently of the nominal monthly price. 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.

Further details on the methodologies are discussed in appendix B.

### 2.5 Indices used in the report

The ACCC uses price indices to measure how telecommunications prices move over time when compared to movements in the general level of consumer prices. Changes in the indices are a simple way to observe how prices for a ‘basket’ of services change over time.

The indices do not show the actual level of prices. Each index starts at 100 in the first year (the base year). Prices then move above or below this index. Falling prices are shown by movements below 100, as the index changes remove the effect of inflation over time. The indices also capture the cumulative effect of annual price changes since the base year, i.e. if an index fell to an index number of 60 in 2013–14 then real prices have fallen by 40 per cent since the base year.

The ACCC measures prices for three ‘baskets’ of telecommunications services: fixed-line voice services delivered to households and businesses, mobile services and internet services.

This report sets out price changes in telecommunications services in real terms. That is, the effect of changes in the Consumer Price Index (CPI) for the eight capital cities is used to adjust nominal prices. A fall in the indices shows that prices for telecommunications services are falling relative to average prices for each ‘basket’ of products and services covered by the CPI.

#### Changes to the indices

The ACCC has made some changes to the indices in this report as a result of the revised Division 12 RKR. The main changes include:

- removal of the index for dial-up internet service
- inclusion of indices for VoIP and NBN internet services
- inclusion of a fixed voice services index that captures price movements for PSTN services (from 1997–98 onwards) and VoIP services (from 2013–14 onwards).

#### 2013–14 indices

Given the inflation rate of 3.0 per cent, the relationship between annual changes in the indices and nominal prices is as follows:

- a decline of less than 3.0 per cent equates to an increase in the nominal price
- a decline of 3.0 per cent equates to no movement in the nominal price
- a decline of more than 3.0 per cent equates to a decrease in nominal prices.

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

---

\(^6\) 385 bills from each reporting carrier.
3 Telecommunications services index

The telecommunications services index shows how average real prices for fixed-line voice services, mobile services and internet services have changed over time. The index is derived by aggregating revenue-weighted real price changes for the specified services.

3.1 Main changes

Nominal prices rose slightly during the reporting period which led to a 2.7 per cent decrease in the real prices of telecommunications services. This was the largest decrease since 2010–11. This may be attributed to a number of factors such as strong competition in the mobile market and more competition in fixed-line markets.\(^7\) Table A2 shows the price decreases for overall telecommunications services each year since 2000–01.

The telecommunications services index was re-based in 2006–07 following the addition of internet services. Figure 3.1 shows that since this time, the index has declined by 23.0 per cent.

Figure 3.1 The telecommunications services index, 2006–07 to 2013–14

The telecommunications service index includes a number of components and each component includes a number of services. During 2013–14, prices fell for all services with the exception of NBN internet services which increased by 4.6 per cent. This is mainly due to a number of retail service providers increasing the price of some of their NBN internet plans. However, end-users of these NBN plans were not necessarily worse off, as many of the plan price increases were also accompanied by increases in the data inclusions for the relevant plans.

Table 3.1 shows the real price changes for each service during the reporting period and the total change since the base year.

---

### Table 3.1 Real price changes for components of the telecommunications services index

<table>
<thead>
<tr>
<th>Service Type</th>
<th>YoY % change (2013−14)</th>
<th>% change since base year</th>
<th>Base Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall telecommunications services</td>
<td>−2.7</td>
<td>−23.0</td>
<td>2006−07</td>
</tr>
<tr>
<td>Fixed-line voice services</td>
<td>−5.2</td>
<td>−49.8</td>
<td>1997−98</td>
</tr>
<tr>
<td>PSTN</td>
<td>−5.1</td>
<td>−49.8</td>
<td>1997−98</td>
</tr>
<tr>
<td>VoIP</td>
<td>−6.6</td>
<td>−6.6</td>
<td>2012−13</td>
</tr>
<tr>
<td>Mobile services</td>
<td>−2.0</td>
<td>−52.7</td>
<td>1997−98</td>
</tr>
<tr>
<td>Post-paid services</td>
<td>−1.9</td>
<td>−16.8</td>
<td>2006−07</td>
</tr>
<tr>
<td>Prepaid mobile services</td>
<td>−2.5</td>
<td>−29.1</td>
<td>2006−07</td>
</tr>
<tr>
<td>Internet services</td>
<td>−2.2</td>
<td>−22.6</td>
<td>2006−07</td>
</tr>
<tr>
<td>Wireless services</td>
<td>−2.7</td>
<td>−32.4</td>
<td>2007−08</td>
</tr>
<tr>
<td>DSL services</td>
<td>−2.0</td>
<td>−20.0</td>
<td>2006−07</td>
</tr>
<tr>
<td>Cable services</td>
<td>−2.2</td>
<td>−12.4</td>
<td>2006−07</td>
</tr>
<tr>
<td>NBN internet services</td>
<td>4.6</td>
<td>4.6</td>
<td>2012−13</td>
</tr>
</tbody>
</table>

A points contribution analysis gives an indication of the contribution that each type of service makes to the movement in the overall index for each type of service. Figure 3.2 shows that fixed-line voice and mobile services each contributed a greater proportion to the overall decline in the telecommunications services index in 2013−14 than internet services.

**Figure 3.2 Points contribution of the fixed-line voice, mobile and internet services indices to the movement in the telecommunications services index, 2013−14**

![Figure 3.2 Points contribution](image)

*The sum of the components’ points contribution may not add up to the net index change due to rounding.*
4 Fixed-line voice services index

The fixed-line voice services index measures average real price changes for a range of PSTN and VoIP services across business\(^9\) and residential consumer groups. The fixed-line voice services index includes the following service components: basic access (i.e. line rental), local calls, national long-distance calls, international calls and fixed-to-mobile calls.

The PSTN sub-index is derived from the PSTN business services index and the PSTN residential services index; a similar approach is used for the VoIP sub-index.

4.1 Overall changes

The average real prices of fixed-line voice services fell by 5.2 per cent in 2013–14, implying that prices fell in nominal terms in the reporting period. The indices for both PSTN services and VoIP services users fell in 2013–14, with the real price decline for PSTN services and VoIP services at 5.1 per cent and 6.6 per cent respectively.

The fixed-line voice index has declined by 49.8 per cent (in real terms) since the base year (1997–98). The new VoIP sub-index fell at a greater rate compared to the PSTN sub-index in 2013–14 but had little effect on the overall fixed-line voice index as PSTN services account for more than 98.1 per cent of fixed-line voice services.

Figure 4.1 The fixed-line voice service indices by service, 1997–98 to 2013–14

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

\(^9\) Business includes ’small business’ and ’other business’.
Changes in the prices paid for telecommunications services in Australia, 2013–14

Table 4.1 Year-on-year ‘real’ percentage changes in the fixed-line voice service index by service over the last decade

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PSTN</td>
<td>−1.3</td>
<td>−6.6</td>
<td>−5.4</td>
<td>−5.7</td>
<td>−2.6</td>
<td>−5.8</td>
<td>−7.3</td>
<td>−4.9</td>
<td>−3.2</td>
<td>−5.1</td>
</tr>
<tr>
<td>VoIP</td>
<td>−6.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed-line voice</td>
<td>−1.3</td>
<td>−6.6</td>
<td>−5.4</td>
<td>−5.7</td>
<td>−2.6</td>
<td>−5.8</td>
<td>−7.3</td>
<td>−4.9</td>
<td>−3.2</td>
<td>−5.2</td>
</tr>
</tbody>
</table>

Figure 4.2 shows the contributions made by PSTN and VoIP services to the decline of the overall fixed-line voice service index in 2013–14 after adjusting for revenue weights. PSTN services were the main driver behind the decrease in the fixed-line voice index.

Figure 4.2 Points contribution of PSTN and VoIP services to the changes in the fixed-line voice index, 2013–14

Real prices fell for each component of the fixed-line voice service in 2013–14 (table 4.2). Notably, real prices for international and fixed-to-mobile call prices decreased 24.7 and 10.5 per cent respectively, with the international call prices decrease the largest decrease in this decade. Table 4.2 also shows that real prices have fallen every year for the call components of fixed-line voice services since 2004–05.

Table 4.2 Year-on-year ‘real’ percentage changes in the fixed-line voice service index by service type over the last decade

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic access</td>
<td>5.1</td>
<td>−2.4</td>
<td>−1.4</td>
<td>−1.6</td>
<td>1.1</td>
<td>−2.0</td>
<td>−4.2</td>
<td>−1.4</td>
<td>0.7</td>
<td>−3.4</td>
</tr>
<tr>
<td>Local calls</td>
<td>−7.9</td>
<td>−9.5</td>
<td>−6.7</td>
<td>−10.1</td>
<td>−2.5</td>
<td>−7.5</td>
<td>−8.6</td>
<td>−8.2</td>
<td>−2.2</td>
<td>−3.1</td>
</tr>
<tr>
<td>National long-distance</td>
<td>−3.0</td>
<td>−6.9</td>
<td>−10.9</td>
<td>−10.9</td>
<td>−6.7</td>
<td>−9.0</td>
<td>−7.9</td>
<td>−5.2</td>
<td>−2.7</td>
<td>−1.0</td>
</tr>
<tr>
<td>International</td>
<td>−4.1</td>
<td>−8.8</td>
<td>−4.8</td>
<td>−7.7</td>
<td>−3.9</td>
<td>−13.8</td>
<td>−14.5</td>
<td>−15.5</td>
<td>−21.2</td>
<td>−24.7</td>
</tr>
<tr>
<td>Fixed-to-mobile</td>
<td>−3.9</td>
<td>−10.5</td>
<td>−7.6</td>
<td>−6.4</td>
<td>−6.8</td>
<td>−9.7</td>
<td>−12.4</td>
<td>−10.5</td>
<td>−11.7</td>
<td>−10.5</td>
</tr>
<tr>
<td>Fixed-line voice services index</td>
<td>−1.3</td>
<td>−6.6</td>
<td>−5.4</td>
<td>−5.5</td>
<td>−2.6</td>
<td>−5.8</td>
<td>−7.3</td>
<td>−4.9</td>
<td>−3.2</td>
<td>−5.2</td>
</tr>
</tbody>
</table>

10 The sum of the components’ points contribution may not add up to the net index change due to rounding.
Figure 4.3 shows the contributions made by each component to the decline in the overall fixed-line voice service index in 2013–14 after adjusting for revenue weights. Basic access and fixed-to-mobile services were the main drivers in the overall price decline in 2013–14.

**Figure 4.3 Points contribution of fixed-line voice services to the changes in the fixed-line voice index, 2013–14**

<table>
<thead>
<tr>
<th>Component</th>
<th>Points Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic access</td>
<td>-5.2</td>
</tr>
<tr>
<td>Local calls</td>
<td>-2.1</td>
</tr>
<tr>
<td>National long-distance</td>
<td>-2.0</td>
</tr>
<tr>
<td>International</td>
<td>-0.7</td>
</tr>
<tr>
<td>Fixed-to-mobile</td>
<td>-0.2</td>
</tr>
<tr>
<td>All fixed–voice</td>
<td>-0.1</td>
</tr>
</tbody>
</table>

4.2 PSTN sub-index

The PSTN services sub-index is derived from average real prices paid for two types of PSTN services—residential and business PSTN services. There are also two components to PSTN business services—small business and other business.

4.2.1 Price movements in the overall PSTN sub-index

The PSTN sub-index has declined by 49.8 per cent (in real terms) since the base year (1997–98) (figure 4.4). During the reporting period, average real prices of residential and business PSTN services declined by 5.5 and 4.7 per cent respectively.

**Figure 4.4 The PSTN services index for residential and business consumers, 1997–98 to 2013–14**

---

11 The sum of the components’ points contribution may not add up to the net index change due to rounding.
Real prices decreased across each service component of the PSTN sub-index in 2013–14 (table 4.3). International and fixed-to-mobile call prices fell significantly in the period, with year-on-year international call price reductions the largest in the decade.

### Table 4.3  Year-on-year ‘real’ percentage change in the PSTN sub-index by service type over the last decade

<table>
<thead>
<tr>
<th>Year</th>
<th>Basic access</th>
<th>Local calls</th>
<th>National long-distance</th>
<th>International</th>
<th>Fixed-to-mobile</th>
<th>PSTN services index</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004−05</td>
<td>5.1</td>
<td>−7.9</td>
<td>−3.0</td>
<td>−4.1</td>
<td>−3.9</td>
<td>−1.3</td>
</tr>
<tr>
<td>2005−06</td>
<td>−2.4</td>
<td>−9.5</td>
<td>−6.9</td>
<td>−8.8</td>
<td>−10.5</td>
<td>−6.6</td>
</tr>
<tr>
<td>2006−07</td>
<td>−1.4</td>
<td>−6.7</td>
<td>−10.9</td>
<td>−4.8</td>
<td>−7.6</td>
<td>−5.4</td>
</tr>
<tr>
<td>2007−08</td>
<td>−1.6</td>
<td>−10.1</td>
<td>−10.9</td>
<td>−7.7</td>
<td>−6.4</td>
<td>−5.5</td>
</tr>
<tr>
<td>2008−09</td>
<td>1.1</td>
<td>−2.5</td>
<td>−6.7</td>
<td>−3.9</td>
<td>−6.8</td>
<td>−2.6</td>
</tr>
<tr>
<td>2009−10</td>
<td>−2.0</td>
<td>−7.5</td>
<td>−9.0</td>
<td>−13.8</td>
<td>−9.7</td>
<td>−5.8</td>
</tr>
<tr>
<td>2010−11</td>
<td>−4.2</td>
<td>−8.6</td>
<td>−7.9</td>
<td>−14.5</td>
<td>−12.4</td>
<td>−7.3</td>
</tr>
<tr>
<td>2011−12</td>
<td>−1.4</td>
<td>−8.2</td>
<td>−5.2</td>
<td>−15.5</td>
<td>−10.5</td>
<td>−4.9</td>
</tr>
<tr>
<td>2012−13</td>
<td>0.7</td>
<td>−2.2</td>
<td>−2.7</td>
<td>−21.2</td>
<td>−11.7</td>
<td>−3.2</td>
</tr>
<tr>
<td>2013−14</td>
<td>−3.4</td>
<td>−2.2</td>
<td>−1.0</td>
<td>−24.9</td>
<td>−10.6</td>
<td>−5.1</td>
</tr>
</tbody>
</table>

Figure 4.5 shows the contributions made by different components to the decline of the overall PSTN sub-index in 2013–14.

Figure 4.6 shows the proportion of consumer expenditure attributed to each component of the PSTN sub-index in 1997–98 and 2013–14. Basic access and fixed-to-mobile calls accounted for a much greater proportion of total consumer expenditure in 2013–14 than they did in 1997–98, whereas the proportion of consumer expenditure on PSTN international call services has reduced significantly.

12 The sum of the components’ points contribution may not add up to the net index change due to rounding.
In 2013–14, the real price of PSTN services fell by 5.1 per cent (table 4.4), which was a greater decline than in 2012. The residential PSTN services index was the dominant driver of the price decline for the overall PSTN services, contributing to the PSTN price decline by 3.3 percentage points whereas the business PSTN services index contributed to the overall PSTN price decline by only 1.9 percentage points. Table 4.4 below shows the year-on-year percentage changes in the PSTN services index since 2004–05.

Table 4.4 Year-on-year ‘real’ percentage changes in the PSTN service index by consumer group over the last decade

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>-0.4</td>
<td>-5.5</td>
<td>-5.4</td>
<td>-6.4</td>
<td>-3.1</td>
<td>-6.4</td>
<td>-6.9</td>
<td>-4.4</td>
<td>-3.0</td>
<td>-5.5</td>
</tr>
<tr>
<td>Business</td>
<td>-2.9</td>
<td>-8.6</td>
<td>-5.5</td>
<td>-4.0</td>
<td>-1.7</td>
<td>-4.7</td>
<td>-7.9</td>
<td>-5.7</td>
<td>-3.5</td>
<td>-4.7</td>
</tr>
<tr>
<td>PSTN services index</td>
<td>-1.3</td>
<td>-6.6</td>
<td>-5.4</td>
<td>-5.5</td>
<td>-2.6</td>
<td>-5.8</td>
<td>-7.3</td>
<td>-4.9</td>
<td>-3.2</td>
<td>-5.1</td>
</tr>
</tbody>
</table>

4.2.2 Price movements in the PSTN residential index

The PSTN residential services index is derived from average real prices paid by residential consumers for each component of PSTN services. Average prices of residential PSTN services declined in 2013–14 by 5.5 per cent in real terms.

Table 4.5 shows the movement in the service components of the PSTN residential index over the past decade. With the exception of national long-distance calls, real prices decreased across every service component of the PSTN residential index in 2013–14.
Table 4.5  Year-on-year ‘real’ percentage changes in the PSTN residential service index by service type over the last decade

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic access</td>
<td>7.4</td>
<td>-1.5</td>
<td>-0.1</td>
<td>-1.0</td>
<td>-0.3</td>
<td>-1.8</td>
<td>-4.1</td>
<td>-1.8</td>
<td>1.1</td>
<td>-4.2</td>
</tr>
<tr>
<td>Local calls</td>
<td>-11.2</td>
<td>-9.0</td>
<td>-7.6</td>
<td>-10.1</td>
<td>-1.3</td>
<td>-8.1</td>
<td>-11.5</td>
<td>-6.1</td>
<td>-1.3</td>
<td>-1.7</td>
</tr>
<tr>
<td>National long-distance calls</td>
<td>-1.7</td>
<td>-5.6</td>
<td>-13.0</td>
<td>-13.2</td>
<td>-6.7</td>
<td>-11.1</td>
<td>-2.5</td>
<td>-1.2</td>
<td>0.0</td>
<td>0.6</td>
</tr>
<tr>
<td>International calls</td>
<td>-3.4</td>
<td>-8.4</td>
<td>-5.3</td>
<td>-9.2</td>
<td>-3.7</td>
<td>-16.4</td>
<td>-13.8</td>
<td>-17.4</td>
<td>-26.7</td>
<td>-34.3</td>
</tr>
<tr>
<td>Fixed-to-mobile calls</td>
<td>-1.7</td>
<td>-9.3</td>
<td>-8.3</td>
<td>-10.9</td>
<td>-7.9</td>
<td>-11.4</td>
<td>-13.4</td>
<td>-10.4</td>
<td>-14.3</td>
<td>-10.2</td>
</tr>
<tr>
<td>PSTN residential</td>
<td>-0.4</td>
<td>-5.5</td>
<td>-5.4</td>
<td>-6.4</td>
<td>-3.1</td>
<td>-6.4</td>
<td>-6.9</td>
<td>-4.4</td>
<td>-3.0</td>
<td>-5.5</td>
</tr>
</tbody>
</table>

Figure 4.7 shows the extent to which each service component contributed to the change in the PSTN residential index in 2013−14. Basic access services were the largest contributor towards the fall in the index followed by fixed-to-mobile services. The slight increase in the real price levels of the national long-distance calls were offset by the decline in real prices for all other services making up the residential PSTN sub-index.

Figure 4.7 Points contribution of residential PSTN services to the changes in the residential PSTN sub-index, 2013−14

4.2.3  Price movements in the PSTN business index

The PSTN business services index is derived from ‘small business’ and ‘other business’ sub-indices. As is the case for the PSTN residential index, each PSTN business sub-index is comprised of five PSTN services components: basic access, local calls, national long-distance calls, international calls and fixed-to-mobile calls.

It should be noted that reporting carriers’ definitions of ‘small business’ and ‘other business’ vary. For example, certain types of consumers categorised as small business by one carrier may be treated as other business by another carrier. In addition, some carriers may change the definitions they use over time, which would result in revenues and/or usage being shifted between consumer categories and between time periods. Given these factors, it is difficult to compare either year-on-year price changes for each business category or prices across business types and/or carriers.

14 The sum of the components’ points contribution may not add up to the net index change due to rounding.
Given this, the ACCC considers that the aggregate PSTN business index is the most relevant indicator of price changes for business consumers, as the index accounts for revenue and usage data for all business consumers regardless of the definitions used by carriers. However, the ACCC does recognise that the ‘small business’ and the ‘other business’ sub-indices provide additional useful information on price trends between business consumers of different sizes and so has included information on these sub-indices in this report.

The PSTN business index fell by 4.7 per cent in real terms in 2013–14 (figure 4.8). The decline in the overall price index reflects the decreases in the average prices paid by both ‘small business’ consumers and ‘other business’ consumers which fell by 4.0 per cent and 6.1 per cent respectively (in real terms) in 2013–14.

Figure 4.8 The PSTN business services index by small and other businesses, 2013–14

The PSTN business index has declined each year. Table 4.6 shows the annual price index movements for small and other business services over the past decade. Although small business customers faced a price increase during 2004–05, this was offset by the significant decline in prices for other business services that year.

Table 4.6 Year-on-year ‘real’ percentage changes in the PSTN business index by small business and other business over the last decade

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Small business</td>
<td>15.9</td>
<td>-9.6</td>
<td>-3.6</td>
<td>-3.3</td>
<td>-1.5</td>
<td>-4.7</td>
<td>-7.7</td>
<td>-5.7</td>
<td>-1.1</td>
<td>-4.0</td>
</tr>
<tr>
<td>Other business</td>
<td>-18.2</td>
<td>-7.7</td>
<td>-8.8</td>
<td>-5.4</td>
<td>-1.9</td>
<td>-4.7</td>
<td>-8.2</td>
<td>-5.7</td>
<td>-8.1</td>
<td>-6.1</td>
</tr>
<tr>
<td>PSTN business index</td>
<td>-2.9</td>
<td>-8.6</td>
<td>-5.5</td>
<td>-4.0</td>
<td>-1.7</td>
<td>-4.7</td>
<td>-7.9</td>
<td>-5.7</td>
<td>-3.5</td>
<td>-4.7</td>
</tr>
</tbody>
</table>
In 2013−14, the small business index contributed to the 4.7 per cent decline (in real terms) in the overall business index by a decline of 2.7 percentage points and the other business index contributed by a decline of 2.0 percentage points. This is a shift from 2012−13 where the other business index contributed almost four times more to the overall business index decrease.

Average real prices for every component of the PSTN business services index declined during 2013−14 (table 4.7). The greatest price decline during the reporting period was for fixed-to-mobile services, which had a real price decline of over 10 per cent.

Table 4.7  Year-on-year ‘real’ percentage changes in the PSTN business index by service type over the last decade

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic access</td>
<td>0.9</td>
<td>−4.2</td>
<td>−3.8</td>
<td>−2.8</td>
<td>3.8</td>
<td>−2.3</td>
<td>−4.4</td>
<td>−0.7</td>
<td>0.2</td>
<td>−2.0</td>
</tr>
<tr>
<td>Local calls</td>
<td>−0.6</td>
<td>−10.4</td>
<td>−5.2</td>
<td>−10.2</td>
<td>−4.4</td>
<td>−6.7</td>
<td>−4.7</td>
<td>−10.9</td>
<td>−3.4</td>
<td>−5.3</td>
</tr>
<tr>
<td>National long-distance</td>
<td>−5.6</td>
<td>−9.6</td>
<td>−6.9</td>
<td>−6.6</td>
<td>−5.6</td>
<td>−15.5</td>
<td>−11.1</td>
<td>−6.8</td>
<td>−3.7</td>
<td></td>
</tr>
<tr>
<td>International</td>
<td>−7.6</td>
<td>−10.4</td>
<td>−2.9</td>
<td>−2.0</td>
<td>−4.7</td>
<td>−3.4</td>
<td>−16.6</td>
<td>−10.8</td>
<td>−9.5</td>
<td>−6.0</td>
</tr>
<tr>
<td>Fixed-to-mobile</td>
<td>−6.5</td>
<td>−12.0</td>
<td>−6.9</td>
<td>−2.3</td>
<td>−5.5</td>
<td>−7.5</td>
<td>−11.3</td>
<td>−10.7</td>
<td>−9.2</td>
<td>−10.9</td>
</tr>
<tr>
<td>PSTN business</td>
<td>−2.9</td>
<td>−8.6</td>
<td>−5.5</td>
<td>−4.0</td>
<td>−1.7</td>
<td>−4.7</td>
<td>−7.9</td>
<td>−5.7</td>
<td>−3.5</td>
<td>−4.7</td>
</tr>
</tbody>
</table>

Figure 4.9 shows the contribution each service component makes to the total decrease in the PSTN business service index.

Figure 4.9  Points contribution by individual PSTN service component to the change in the overall business index, 2013−14

15 The sum of the components’ points contribution may not add up to the net index change due to rounding.
4.2.3.1 Price movements in the PSTN small business index

Average real prices for small business voice services fell by 4.0 per cent during the reporting period. Figure 4.10 shows the movement in the service components of the small business PSTN sub-index over the last five years.

Real prices fell across all small business call services in 2013–14. The magnitude of price decline for fixed-to-mobile, national long distance and local calls for 2013–14 was much bigger compared to the previous year’s price movements for those services. PSTN small business international and fixed-to-mobile prices decreased by more than 10 per cent in 2013–14.

4.2.3.2 Price movements in the PSTN other business index

Average real prices for PSTN other business voice services declined by 6.1 per cent in 2013-14. Figure 4.11 shows the movement in the service component of the other business PSTN sub-index over the last five years. Real prices fell across every component of PSTN services in 2013–14 except for national-long-distance services, which increased slightly for the first time in five years. This increase was compensated to some extent by the greatest price decline in basic access services in five years.
Changes in the prices paid for telecommunications services in Australia, 2013–14

Figure 4.11 Year-on-year percentage changes in the price index by PSTN service component for other business consumers, 2009–10 to 2013–14

4.3 VoIP sub-index

As noted above, the VoIP services index has been included in this report for the first time. The indices in this section should be interpreted with a degree of caution as the reporting companies are reporting on this service for the first time, and given the low volume of data in the current period, the movement in percentage changes may over emphasise the actual movement in absolute figures.

Average real prices of overall VoIP services declined by 6.6 per cent in 2013–14 (figure 4.12). Prices for international call services declined the most in real percentage terms, followed by basic access and fixed-to-mobile services.

Figure 4.12 The VoIP services index by service component, 2012–13 to 2013–14
Table 4.8 shows the movement in the service components of the VoIP sub-index in 2013–14. International VoIP services index declined by 16.4 per cent (in real terms) followed by basic access and fixed-to-mobile services which declined by 8.2 per cent and 4.8 per cent (both in real terms) respectively.

Table 4.8 Year-on-year 'real' percentage changes in the VoIP service index by service component, 2013–14

<table>
<thead>
<tr>
<th>Service Component</th>
<th>All VoIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic access</td>
<td>-8.2</td>
</tr>
<tr>
<td>Local calls</td>
<td>0.0</td>
</tr>
<tr>
<td>National long-distance</td>
<td>-2.9</td>
</tr>
<tr>
<td>International</td>
<td>-16.4</td>
</tr>
<tr>
<td>Fixed-to-mobile</td>
<td>-4.8</td>
</tr>
<tr>
<td>VoIP services index</td>
<td>-6.6</td>
</tr>
</tbody>
</table>

Figure 4.13 shows the contributions made by different components of VoIP services to the decline in the overall VoIP service index in 2013–14. Basic access was the main driver of the decline in the overall VoIP prices followed by fixed-to-mobile and international calls.

Figure 4.13 Points contribution of VoIP service components to the changes in the VoIP sub-index, 2013–14

The majority of the VoIP consumer expenditure was on basic access component of the service (42 per cent), followed by expenditure on fixed-to-mobile services (34 per cent), local calls (12 per cent), international (8 per cent) and national long-distance (4 per cent).
5 Mobile services index

The mobile services index measures average real price changes for mobile services in Australia.

Prices for mobile services provided via GSM, 3G and 4G technologies are reported on an aggregated basis. The aggregated approach is used as carriers have advised that they increasingly find it difficult to disaggregate data by technology type. In addition, most handsets are capable of roaming between different networks or technology platforms (subject to network availability) and only a small proportion of the services are tied to a particular technology.

This report includes data on the overall mobile services index and the post-paid and prepaid sub-indices. Indices are calculated based on plan prices for bundles of mobile services, representing the expenditure patterns of consumer with notional ‘very low’, ‘low’, ‘average’, ‘high’ and ‘very high’ spend on mobile services. The sub-indices are derived for post-paid and prepaid mobile services and are then weighted using revenue weights for each type of service to derive the overall mobile services index.

5.1 Overall changes

Average real prices of mobile services fell by approximately 2.0 per cent in 2013–14. This implies that nominal mobile prices increased by less than the 3.0 per cent rate of inflation in the period.

Figure 5.1 shows that price reductions in 2013–14 were slightly higher than in 2012–13.

Figure 5.1 Overall mobile services index, 1997–98 to 2013–14

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.

16 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.
5.2 Prepaid vs post-paid sub-indices

Real prices fell for both post-paid and prepaid mobile services sub-indices in 2013–14. Figure 5.2 shows that the post-paid sub-index fell by 1.9 per cent, a larger decline than that observed in 2012–13 (0.8 per cent), while the prepaid sub-index fell by 2.5 per cent, a smaller decline than in 2012–13 (3.1 per cent).

Figure 5.2 Year-on-year percentage changes in the overall mobile services index and the post-paid and prepaid sub-indices, 2009–10 to 2013–14

Figure 5.3 shows how the post-paid and prepaid sub-indices contributed to the overall fall in the mobile services index in 2013–14. The post-paid sub-index contributed significantly more to the overall fall in the mobile services index as post-paid services account for a greater proportion of mobile services in terms of revenue share (81.8 per cent).

Figure 5.3 Points contribution by prepaid and post-paid indices to the change in the mobile services index, 2013–14

17 The sum of the components’ point contributions may not add up to the net index change due to rounding.
5.3 Price changes by user groups

Real prices increased for the very low, low and average user groups of post-paid services and decreased for high and very high user groups in 2013–14 (figure 5.4). Prices for the very low user group have been increasing over the past four years and increased by 12.3 per cent in 2013–14 (following a 17.9 per cent increase in 2012–13).

Figure 5.4 Year-on-year percentage change in the price index for post-paid services by user group, 2009–10 to 2013–14

Figure 5.4 shows that prices for the very low user group increased significantly in 2013–14. However, some carriers have included greater data allowances when increasing prices. Therefore, consumers within the very low user group may not necessarily be worse off when paying higher prices.

Figure 5.5 shows changes in the real prices of prepaid services for all user groups between 2009–10 and 2013–14. Real prices for all user groups fell in 2013–14, with the decreases generally consistent with previous years, with the exception that real prices for the very low user group falling by 2.3 per cent in 2013–14 after falling by 0.1 per cent in 2012–13. The consistency observed over the last two years is in contrast to the volatility in price movements observed from 2009–10 to 2011–12.
Figure 5.5  Year-on-year percentage change in the price index for prepaid services by user group, 2009–10 to 2013–14
6 Internet services index

The internet services index measures average real price movements for wireless, DSL, cable and NBN internet services.

Consistent with previous reports, wireless internet services are those services that provide internet connectivity via a USB modem key or wireless card. They therefore exclude data services available through a mobile handset.

Internet services can be supplied using a range of access technology over the NBN (e.g. fibre, wireless and satellite etc.) For the purposes of this report, NBN services are reported as an aggregate index.

The wireless, DSL and cable internet sub-indices are calculated by comparing prices for the selected plans at the beginning and end of each reporting period. The prices for those services are estimated based upon published plan prices and representative usage/spend profiles for consumers in each expenditure quintile. The NBN sub-index is calculated using the same method.

The sub-indices for those individual service types are then weighted and aggregated to form the price index for internet services.

6.1 Overall changes

The average prices of internet services decreased by 2.2 per cent in real terms in 2013–14 (table 6.1). This implies that nominal internet prices rose slightly during the year. The downward trend for real internet prices continued in 2013–14 and the annual price decline has increased from a low of 0.9 per cent in 2012–13. This is mainly the result of a price decrease for DSL and wireless internet services.

Table 6.1 Year-on-year ‘real’ percentage changes in the internet services index by service type

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wireless</td>
<td>n/a</td>
<td>-18.5</td>
<td>-14.7</td>
<td>-3.5</td>
<td>1.7</td>
<td>1.8</td>
<td>-2.7</td>
</tr>
<tr>
<td>DSL</td>
<td>-5.2</td>
<td>-0.4</td>
<td>-2.0</td>
<td>-3.4</td>
<td>-5.7</td>
<td>-2.2</td>
<td>-2.0</td>
</tr>
<tr>
<td>Cable</td>
<td>-5.9</td>
<td>0.5</td>
<td>-1.1</td>
<td>-3.5</td>
<td>1.0</td>
<td>-1.8</td>
<td>-2.2</td>
</tr>
<tr>
<td>NBN internet</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>4.6</td>
</tr>
<tr>
<td>Overall</td>
<td>-6.2</td>
<td>-4.6</td>
<td>-4.9</td>
<td>-3.6</td>
<td>-2.7</td>
<td>-0.9</td>
<td>-2.2</td>
</tr>
</tbody>
</table>
6.2 Points contribution

In 2013–14, the DSL sub-index made the largest contribution to the decrease in the overall internet services index, followed by wireless and cable internet services. Prices for NBN services increased during 2013–14 however its contribution to the internet services index is relatively small.

Figure 6.1 Points contribution by NBN, wireless, DSL and cable indices to the change in internet services index, 2013–14\textsuperscript{18}

<table>
<thead>
<tr>
<th>Points contribution</th>
<th>NBN</th>
<th>Wireless</th>
<th>Cable</th>
<th>DSL</th>
<th>All internet</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-2.2</td>
<td>-1.1</td>
<td>-0.8</td>
<td>-0.3</td>
<td></td>
</tr>
</tbody>
</table>

6.3 Wireless internet services

In 2013–14, wireless internet prices decreased by 2.7 per cent in real terms which reverses a trend of price increases during 2011–12 and 2012–13.

While the significant price falls in 2008–09 and 2009–10 helped drive strong take up of wireless internet services, there have been smaller price movements since then. During the 2013–14 reporting period most carriers have maintained their plan offerings (in terms of nominal prices and inclusions).

6.4 DSL internet services

In 2013–14, average real prices for DSL internet services fell by 2.0 per cent and this is the seventh consecutive annual price decline. The magnitude of the price decline was the smallest since 2009–10 because carriers largely maintained the price points (i.e. the nominal price) and data inclusions of their plans in 2013–14. The price decline in DSL services was also the major contributor to the overall decline in the internet services index.

6.5 Cable internet services

In 2013–14, real prices for cable internet services decreased by 2.2 per cent. The prices of cable internet services have been relatively stable over the years with annual price changes of less than two per cent in all but two of the reporting periods (2007–08 and 2010–11).

During 2013–14, carriers generally maintained prices on existing plans for high and very high spending consumers and revised plans aimed at lower spending consumers. The revisions were generally either in the form of lower prices or lower prices for less data quotas.

\textsuperscript{18} The sum of the components’ points contribution may not add up to the net index change due to rounding.
6.6 NBN internet services

In 2013–14, real prices for internet services supplied over the NBN increased by 4.6 per cent (table 6.1). This can be mainly attributed to a number of retail service providers increasing the price of some of their NBN internet plans. However, end-users of these NBN plans were not necessarily worse off, as many of the plan price increases were also accompanied by increases in the data inclusions for the relevant plans.

Further, this report only considers retail price movements for NBN internet services—it does not indicate movements in wholesale price levels.

In addition, NBN’s share of the internet services market is relatively small in 2013–14. This is reflected in its small share of the overall internet services revenue and its small contribution to the change in the internet services index in 2013–14 (table A12).
Appendix A: Tables
### Changes in the prices paid for telecommunications services in Australia, 2013–14

#### Table A1: Telecommunications services index, 1997−98 to 2013−14

<table>
<thead>
<tr>
<th>Year</th>
<th>Fixed-line voice services</th>
<th>Mobile services</th>
<th>Internet services</th>
<th>All services (old series)</th>
<th>All services (new series)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997−98</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>1998−99</td>
<td>88.4</td>
<td>83.2</td>
<td>93.8</td>
<td>95.0</td>
<td>94.5</td>
</tr>
<tr>
<td>1999−00</td>
<td>81.0</td>
<td>81.1</td>
<td>89.5</td>
<td>86.4</td>
<td>87.3</td>
</tr>
<tr>
<td>2000−01</td>
<td>82.4</td>
<td>76.8</td>
<td>85.1</td>
<td>81.1</td>
<td>82.1</td>
</tr>
<tr>
<td>2001−02</td>
<td>75.2</td>
<td>75.9</td>
<td>82.1</td>
<td>79.1</td>
<td>79.9</td>
</tr>
<tr>
<td>2002−03</td>
<td>76.8</td>
<td>73.5</td>
<td>79.9</td>
<td>79.0</td>
<td>79.1</td>
</tr>
<tr>
<td>2003−04</td>
<td>64.0</td>
<td>64.0</td>
<td>73.8</td>
<td>69.0</td>
<td>67.1</td>
</tr>
<tr>
<td>2004−05</td>
<td>59.7</td>
<td>58.3</td>
<td>69.0</td>
<td>63.8</td>
<td>61.9</td>
</tr>
<tr>
<td>2005−06</td>
<td>53.1</td>
<td>55.1</td>
<td>63.8</td>
<td>60.1</td>
<td>57.4</td>
</tr>
<tr>
<td>2006−07</td>
<td>58.3</td>
<td>58.3</td>
<td>60.1</td>
<td>57.4</td>
<td>54.6</td>
</tr>
<tr>
<td>2007−08</td>
<td>49.4</td>
<td>49.4</td>
<td>54.6</td>
<td>50.2</td>
<td>47.3</td>
</tr>
<tr>
<td>2008−09</td>
<td>56.9</td>
<td>49.4</td>
<td>47.3</td>
<td>45.3</td>
<td>43.3</td>
</tr>
<tr>
<td>2009−10</td>
<td>65.9</td>
<td>49.4</td>
<td>43.3</td>
<td>41.3</td>
<td>39.4</td>
</tr>
<tr>
<td>2010−11</td>
<td>62.0</td>
<td>49.4</td>
<td>39.4</td>
<td>37.4</td>
<td>35.5</td>
</tr>
<tr>
<td>2011−12</td>
<td>65.9</td>
<td>49.4</td>
<td>35.5</td>
<td>33.5</td>
<td>31.6</td>
</tr>
<tr>
<td>2012−13</td>
<td>67.7</td>
<td>49.4</td>
<td>31.6</td>
<td>29.6</td>
<td>27.7</td>
</tr>
<tr>
<td>2013−14</td>
<td>71.6</td>
<td>49.4</td>
<td>27.7</td>
<td>25.7</td>
<td>23.8</td>
</tr>
</tbody>
</table>

#### Table A2: Points contribution to telecommunications services index, 2000−01 to 2013−14

<table>
<thead>
<tr>
<th>Year</th>
<th>Fixed-line voice services</th>
<th>Mobile services</th>
<th>Internet services</th>
<th>All telecommunications services</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000−01</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>0.2</td>
</tr>
<tr>
<td>2001−02</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>0.6</td>
</tr>
<tr>
<td>2002−03</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>1.0</td>
</tr>
<tr>
<td>2003−04</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>2.5</td>
</tr>
<tr>
<td>2004−05</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>3.0</td>
</tr>
<tr>
<td>2005−06</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>3.5</td>
</tr>
<tr>
<td>2006−07</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>4.5</td>
</tr>
<tr>
<td>2007−08</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>5.0</td>
</tr>
<tr>
<td>2008−09</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>6.0</td>
</tr>
<tr>
<td>2009−10</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>7.0</td>
</tr>
<tr>
<td>2010−11</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>8.0</td>
</tr>
<tr>
<td>2011−12</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>9.0</td>
</tr>
<tr>
<td>2012−13</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>9.5</td>
</tr>
<tr>
<td>2013−14</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>10.0</td>
</tr>
</tbody>
</table>

Note: Base year for old series is 1997−98. Includes internet services.

* Includes internet services.

Note: 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 2013–14

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>All PSTN</td>
<td>100.0</td>
<td>95.0</td>
<td>88.4</td>
<td>83.2</td>
<td>81.0</td>
<td>81.9</td>
<td>82.1</td>
<td>81.1</td>
<td>75.8</td>
<td>71.6</td>
<td>67.7</td>
<td>65.9</td>
<td>62.0</td>
<td>57.4</td>
<td>54.6</td>
<td>52.9</td>
<td>50.2</td>
</tr>
<tr>
<td>VoIP</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>100.0</td>
<td>93.4</td>
<td></td>
</tr>
<tr>
<td>All fixed-line voice</td>
<td>100.0</td>
<td>95.0</td>
<td>88.4</td>
<td>83.2</td>
<td>81.1</td>
<td>81.9</td>
<td>82.1</td>
<td>81.1</td>
<td>75.8</td>
<td>71.6</td>
<td>67.7</td>
<td>65.9</td>
<td>62.0</td>
<td>57.4</td>
<td>54.6</td>
<td>52.9</td>
<td>50.2</td>
</tr>
</tbody>
</table>

### Table A4  Fixed-line voice services index by service, 1997–98 to 2013–14

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic access</td>
<td>100.0</td>
<td>94.7</td>
<td>105.6</td>
<td>114.6</td>
<td>133.2</td>
<td>143.2</td>
<td>154.2</td>
<td>176.6</td>
<td>160.1</td>
<td>153.2</td>
<td>147.0</td>
<td>144.6</td>
<td>138.5</td>
<td>138.0</td>
<td>138.3</td>
<td>137.5</td>
<td></td>
</tr>
<tr>
<td>Local calls</td>
<td>100.0</td>
<td>99.5</td>
<td>90.3</td>
<td>74.1</td>
<td>65.4</td>
<td>62.9</td>
<td>60.8</td>
<td>56.1</td>
<td>50.7</td>
<td>47.3</td>
<td>42.5</td>
<td>41.7</td>
<td>38.6</td>
<td>35.1</td>
<td>32.3</td>
<td>31.6</td>
<td>30.6</td>
</tr>
<tr>
<td>National long-distance</td>
<td>100.0</td>
<td>93.6</td>
<td>84.7</td>
<td>79.4</td>
<td>72.5</td>
<td>69.1</td>
<td>67.8</td>
<td>65.7</td>
<td>61.2</td>
<td>54.5</td>
<td>48.6</td>
<td>45.3</td>
<td>41.2</td>
<td>38.0</td>
<td>36.0</td>
<td>35.0</td>
<td>34.7</td>
</tr>
<tr>
<td>International</td>
<td>100.0</td>
<td>79.3</td>
<td>57.9</td>
<td>48.0</td>
<td>40.7</td>
<td>38.3</td>
<td>36.1</td>
<td>34.5</td>
<td>31.5</td>
<td>29.9</td>
<td>27.6</td>
<td>26.4</td>
<td>22.8</td>
<td>19.5</td>
<td>16.5</td>
<td>13.0</td>
<td>9.8</td>
</tr>
<tr>
<td>Fixed-to-mobile</td>
<td>100.0</td>
<td>94.7</td>
<td>87.3</td>
<td>81.9</td>
<td>79.2</td>
<td>77.3</td>
<td>75.6</td>
<td>72.7</td>
<td>65.0</td>
<td>60.1</td>
<td>56.2</td>
<td>52.2</td>
<td>47.1</td>
<td>41.3</td>
<td>37.0</td>
<td>32.6</td>
<td>29.2</td>
</tr>
<tr>
<td>All fixed-line voice</td>
<td>100.0</td>
<td>95.0</td>
<td>88.4</td>
<td>83.2</td>
<td>81.0</td>
<td>81.9</td>
<td>82.1</td>
<td>81.1</td>
<td>75.8</td>
<td>71.6</td>
<td>67.7</td>
<td>65.9</td>
<td>62.0</td>
<td>57.4</td>
<td>54.6</td>
<td>52.9</td>
<td>50.2</td>
</tr>
<tr>
<td>Year</td>
<td>All PSTN</td>
<td>PSTN residential</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>---------------------------</td>
<td>----------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Basic access</td>
<td>Basic access</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1997−98</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998−99</td>
<td>99.2</td>
<td>99.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999−00</td>
<td>108.9</td>
<td>110.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000−01</td>
<td>125.4</td>
<td>128.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001−02</td>
<td>142.0</td>
<td>147.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2002−03</td>
<td>159.6</td>
<td>171.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003−04</td>
<td>170.5</td>
<td>184.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2004−05</td>
<td>179.4</td>
<td>198.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005−06</td>
<td>175.2</td>
<td>195.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006−07</td>
<td>172.8</td>
<td>195.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007−08</td>
<td>170.0</td>
<td>193.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008−09</td>
<td>171.8</td>
<td>192.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009−10</td>
<td>167.9</td>
<td>188.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010−11</td>
<td>160.8</td>
<td>180.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011−12</td>
<td>158.6</td>
<td>177.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012−13</td>
<td>159.7</td>
<td>179.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013−14</td>
<td>154.3</td>
<td>171.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Local calls</td>
<td>Local calls</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1997−98</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998−99</td>
<td>99.5</td>
<td>99.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999−00</td>
<td>90.3</td>
<td>88.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000−01</td>
<td>74.1</td>
<td>74.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001−02</td>
<td>65.4</td>
<td>66.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2002−03</td>
<td>62.9</td>
<td>62.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003−04</td>
<td>60.8</td>
<td>55.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2004−05</td>
<td>56.1</td>
<td>50.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005−06</td>
<td>47.3</td>
<td>46.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006−07</td>
<td>42.5</td>
<td>42.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007−08</td>
<td>41.7</td>
<td>42.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008−09</td>
<td>38.6</td>
<td>38.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009−10</td>
<td>35.1</td>
<td>34.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010−11</td>
<td>32.3</td>
<td>32.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011−12</td>
<td>31.6</td>
<td>31.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012−13</td>
<td>30.5</td>
<td>30.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013−14</td>
<td>34.7</td>
<td>34.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>National long-distance</td>
<td>National long-distance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1997−98</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998−99</td>
<td>93.6</td>
<td>93.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999−00</td>
<td>84.7</td>
<td>84.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000−01</td>
<td>79.4</td>
<td>79.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001−02</td>
<td>72.5</td>
<td>72.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2002−03</td>
<td>69.1</td>
<td>69.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003−04</td>
<td>67.8</td>
<td>67.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2004−05</td>
<td>65.7</td>
<td>65.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005−06</td>
<td>61.2</td>
<td>61.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006−07</td>
<td>54.5</td>
<td>54.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007−08</td>
<td>48.6</td>
<td>48.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008−09</td>
<td>45.3</td>
<td>45.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009−10</td>
<td>41.2</td>
<td>41.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010−11</td>
<td>38.0</td>
<td>38.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011−12</td>
<td>36.0</td>
<td>36.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012−13</td>
<td>35.0</td>
<td>35.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013−14</td>
<td>34.7</td>
<td>34.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>International</td>
<td>International</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1997−98</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998−99</td>
<td>79.3</td>
<td>79.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999−00</td>
<td>57.9</td>
<td>57.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000−01</td>
<td>48.0</td>
<td>48.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001−02</td>
<td>40.7</td>
<td>40.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2002−03</td>
<td>38.3</td>
<td>38.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003−04</td>
<td>36.1</td>
<td>36.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2004−05</td>
<td>34.5</td>
<td>34.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005−06</td>
<td>31.5</td>
<td>31.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006−07</td>
<td>29.9</td>
<td>29.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007−08</td>
<td>27.6</td>
<td>27.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008−09</td>
<td>26.4</td>
<td>26.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009−10</td>
<td>22.8</td>
<td>22.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010−11</td>
<td>19.5</td>
<td>19.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011−12</td>
<td>16.5</td>
<td>16.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012−13</td>
<td>13.0</td>
<td>13.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013−14</td>
<td>9.7</td>
<td>9.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fixed-to-mobile</td>
<td>Fixed-to-mobile</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1997−98</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998−99</td>
<td>94.7</td>
<td>94.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999−00</td>
<td>87.3</td>
<td>87.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000−01</td>
<td>81.9</td>
<td>81.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001−02</td>
<td>79.2</td>
<td>79.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2002−03</td>
<td>77.3</td>
<td>77.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003−04</td>
<td>75.6</td>
<td>75.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2004−05</td>
<td>72.7</td>
<td>72.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005−06</td>
<td>65.0</td>
<td>65.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006−07</td>
<td>60.1</td>
<td>60.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007−08</td>
<td>56.2</td>
<td>56.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008−09</td>
<td>52.2</td>
<td>52.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009−10</td>
<td>47.1</td>
<td>47.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010−11</td>
<td>41.3</td>
<td>41.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011−12</td>
<td>37.0</td>
<td>37.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012−13</td>
<td>32.6</td>
<td>32.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013−14</td>
<td>29.2</td>
<td>29.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>All PSTN</td>
<td>All residential</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1997−98</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998−99</td>
<td>95.0</td>
<td>95.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999−00</td>
<td>88.4</td>
<td>88.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000−01</td>
<td>83.2</td>
<td>83.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001−02</td>
<td>81.0</td>
<td>81.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2002−03</td>
<td>81.9</td>
<td>81.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003−04</td>
<td>82.1</td>
<td>82.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2004−05</td>
<td>75.8</td>
<td>75.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005−06</td>
<td>71.6</td>
<td>71.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006−07</td>
<td>67.7</td>
<td>67.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007−08</td>
<td>65.9</td>
<td>65.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008−09</td>
<td>62.0</td>
<td>62.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009−10</td>
<td>57.4</td>
<td>57.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010−11</td>
<td>54.6</td>
<td>54.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011−12</td>
<td>52.9</td>
<td>52.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012−13</td>
<td>50.2</td>
<td>50.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013−14</td>
<td>54.6</td>
<td>54.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td><strong>PSTN business</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic access</td>
<td>100.0</td>
<td>98.9</td>
<td>106.4</td>
<td>120.9</td>
<td>133.0</td>
<td>138.5</td>
<td>146.6</td>
<td>148.0</td>
<td>141.9</td>
<td>136.5</td>
<td>132.6</td>
<td>137.6</td>
<td>134.5</td>
<td>128.7</td>
<td>127.8</td>
<td>128.0</td>
<td><strong>125.5</strong></td>
</tr>
<tr>
<td>Local calls</td>
<td>100.0</td>
<td>100.5</td>
<td>92.9</td>
<td>74.1</td>
<td>64.4</td>
<td>58.5</td>
<td>57.2</td>
<td>56.8</td>
<td>50.9</td>
<td>48.2</td>
<td>43.3</td>
<td>41.4</td>
<td>38.6</td>
<td>36.4</td>
<td>32.5</td>
<td>31.4</td>
<td><strong>29.7</strong></td>
</tr>
<tr>
<td>National long-distance</td>
<td>100.0</td>
<td>91.7</td>
<td>84.3</td>
<td>74.5</td>
<td>67.8</td>
<td>62.0</td>
<td>57.8</td>
<td>54.5</td>
<td>49.3</td>
<td>45.9</td>
<td>42.9</td>
<td>40.0</td>
<td>37.8</td>
<td>31.9</td>
<td>28.4</td>
<td>26.4</td>
<td><strong>25.5</strong></td>
</tr>
<tr>
<td>International</td>
<td>100.0</td>
<td>77.4</td>
<td>55.4</td>
<td>41.4</td>
<td>35.9</td>
<td>30.8</td>
<td>29.0</td>
<td>26.8</td>
<td>24.0</td>
<td>23.3</td>
<td>22.9</td>
<td>21.8</td>
<td>21.0</td>
<td>17.6</td>
<td>15.7</td>
<td>14.2</td>
<td><strong>13.3</strong></td>
</tr>
<tr>
<td>Fixed-to-mobile</td>
<td>100.0</td>
<td>94.1</td>
<td>86.9</td>
<td>78.3</td>
<td>76.9</td>
<td>69.5</td>
<td>66.2</td>
<td>61.9</td>
<td>54.5</td>
<td>50.7</td>
<td>49.6</td>
<td>46.9</td>
<td>43.4</td>
<td>38.5</td>
<td>34.4</td>
<td>31.2</td>
<td><strong>27.8</strong></td>
</tr>
<tr>
<td>All business</td>
<td>100.0</td>
<td>94.7</td>
<td>88.5</td>
<td>80.3</td>
<td>77.7</td>
<td>73.2</td>
<td>72.0</td>
<td>69.9</td>
<td>64.0</td>
<td>60.5</td>
<td>58.0</td>
<td>57.1</td>
<td>54.4</td>
<td>50.1</td>
<td>47.2</td>
<td>45.6</td>
<td><strong>43.5</strong></td>
</tr>
</tbody>
</table>

Note: Base year is 1997–98.
Table A6  PSTN business services index, small and other business, 1997–98 to 2013–14

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Small business</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic access</td>
<td>100.0</td>
<td>94.7</td>
<td>105.6</td>
<td>133.2</td>
<td>143.2</td>
<td>154.2</td>
<td>176.6</td>
<td>160.1</td>
<td>153.2</td>
<td>147.0</td>
<td>149.7</td>
<td>144.6</td>
<td>138.5</td>
<td>138.0</td>
<td>138.3</td>
<td>137.5</td>
<td></td>
</tr>
<tr>
<td>Local calls</td>
<td>100.0</td>
<td>107.2</td>
<td>98.4</td>
<td>75.5</td>
<td>73.2</td>
<td>70.5</td>
<td>68.4</td>
<td>80.6</td>
<td>73.4</td>
<td>71.4</td>
<td>66.6</td>
<td>65.0</td>
<td>59.4</td>
<td>56.4</td>
<td>48.4</td>
<td>48.2</td>
<td>45.6</td>
</tr>
<tr>
<td>National long-distance</td>
<td>100.0</td>
<td>98.2</td>
<td>89.5</td>
<td>86.4</td>
<td>80.7</td>
<td>75.2</td>
<td>79.2</td>
<td>87.4</td>
<td>80.0</td>
<td>78.2</td>
<td>73.6</td>
<td>68.8</td>
<td>67.8</td>
<td>55.0</td>
<td>49.6</td>
<td>49.4</td>
<td>46.2</td>
</tr>
<tr>
<td>International</td>
<td>100.0</td>
<td>90.7</td>
<td>59.7</td>
<td>39.7</td>
<td>34.4</td>
<td>31.9</td>
<td>30.5</td>
<td>34.8</td>
<td>32.0</td>
<td>27.8</td>
<td>28.0</td>
<td>25.8</td>
<td>27.8</td>
<td>20.2</td>
<td>19.1</td>
<td>16.7</td>
<td>14.9</td>
</tr>
<tr>
<td>Fixed-to-mobile</td>
<td>100.0</td>
<td>92.4</td>
<td>87.4</td>
<td>79.9</td>
<td>79.3</td>
<td>75.9</td>
<td>77.0</td>
<td>92.3</td>
<td>82.2</td>
<td>79.5</td>
<td>79.1</td>
<td>76.0</td>
<td>70.8</td>
<td>63.4</td>
<td>56.2</td>
<td>53.9</td>
<td>47.9</td>
</tr>
<tr>
<td>All small business</td>
<td>100.0</td>
<td>97.9</td>
<td>90.8</td>
<td>82.9</td>
<td>84.9</td>
<td>85.9</td>
<td>88.6</td>
<td>102.6</td>
<td>92.8</td>
<td>89.4</td>
<td>86.5</td>
<td>85.2</td>
<td>81.2</td>
<td>74.8</td>
<td>70.5</td>
<td>69.7</td>
<td>67.0</td>
</tr>
<tr>
<td><strong>Other business</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic access</td>
<td>100.0</td>
<td>100.5</td>
<td>106.7</td>
<td>123.1</td>
<td>132.8</td>
<td>133.7</td>
<td>138.7</td>
<td>118.2</td>
<td>120.0</td>
<td>116.9</td>
<td>117.3</td>
<td>127.8</td>
<td>128.0</td>
<td>122.0</td>
<td>120.3</td>
<td>120.4</td>
<td>113.8</td>
</tr>
<tr>
<td>Local calls</td>
<td>100.0</td>
<td>98.6</td>
<td>91.4</td>
<td>73.7</td>
<td>62.3</td>
<td>55.6</td>
<td>54.7</td>
<td>44.4</td>
<td>39.1</td>
<td>34.8</td>
<td>28.2</td>
<td>25.6</td>
<td>24.8</td>
<td>23.0</td>
<td>22.5</td>
<td>20.2</td>
<td>19.2</td>
</tr>
<tr>
<td>National long-distance</td>
<td>100.0</td>
<td>89.4</td>
<td>82.5</td>
<td>70.4</td>
<td>63.8</td>
<td>58.0</td>
<td>49.4</td>
<td>41.4</td>
<td>37.2</td>
<td>32.5</td>
<td>29.9</td>
<td>28.0</td>
<td>25.0</td>
<td>22.4</td>
<td>19.5</td>
<td>16.5</td>
<td>16.6</td>
</tr>
<tr>
<td>International</td>
<td>100.0</td>
<td>69.0</td>
<td>51.8</td>
<td>40.2</td>
<td>34.9</td>
<td>29.4</td>
<td>27.4</td>
<td>21.4</td>
<td>18.8</td>
<td>20.7</td>
<td>19.7</td>
<td>19.2</td>
<td>17.3</td>
<td>15.5</td>
<td>13.5</td>
<td>12.4</td>
<td>11.8</td>
</tr>
<tr>
<td>Fixed-to-mobile</td>
<td>100.0</td>
<td>94.5</td>
<td>86.8</td>
<td>77.9</td>
<td>76.4</td>
<td>68.0</td>
<td>62.2</td>
<td>49.0</td>
<td>42.8</td>
<td>37.7</td>
<td>35.7</td>
<td>32.8</td>
<td>30.0</td>
<td>26.0</td>
<td>23.6</td>
<td>19.3</td>
<td>17.2</td>
</tr>
<tr>
<td>All other business</td>
<td>100.0</td>
<td>93.7</td>
<td>87.8</td>
<td>79.5</td>
<td>75.8</td>
<td>69.3</td>
<td>65.4</td>
<td>53.5</td>
<td>49.4</td>
<td>45.1</td>
<td>42.6</td>
<td>41.8</td>
<td>39.9</td>
<td>36.6</td>
<td>34.5</td>
<td>31.7</td>
<td>29.8</td>
</tr>
<tr>
<td>PSTN business</td>
<td>100.0</td>
<td>94.7</td>
<td>88.5</td>
<td>80.3</td>
<td>77.7</td>
<td>73.2</td>
<td>72.0</td>
<td>69.9</td>
<td>64.0</td>
<td>60.5</td>
<td>58.0</td>
<td>57.1</td>
<td>54.4</td>
<td>50.1</td>
<td>47.2</td>
<td>45.6</td>
<td>43.5</td>
</tr>
</tbody>
</table>

Note: Base year is 1997−98.
Table A7 Points contribution to PSTN sub-indices by service, residential and business, 1998−99 to 2013−14

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PSTN</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic access</td>
<td>−0.2</td>
<td>1.9</td>
<td>3.3</td>
<td>3.7</td>
<td>3.7</td>
<td>2.2</td>
<td>1.8</td>
<td>−0.9</td>
<td>−0.5</td>
<td>−0.7</td>
<td>0.5</td>
<td>−1.0</td>
<td>−2.2</td>
<td>−0.7</td>
<td>0.4</td>
<td>−2.1</td>
<td></td>
</tr>
<tr>
<td>Local calls</td>
<td>−0.1</td>
<td>−2.8</td>
<td>−5.0</td>
<td>−2.6</td>
<td>−0.8</td>
<td>−0.7</td>
<td>−1.4</td>
<td>−1.5</td>
<td>−0.9</td>
<td>−1.2</td>
<td>−0.3</td>
<td>−0.8</td>
<td>−0.8</td>
<td>−0.7</td>
<td>−0.2</td>
<td>−0.2</td>
<td></td>
</tr>
<tr>
<td>National long-distance</td>
<td>−1.6</td>
<td>−2.3</td>
<td>−1.5</td>
<td>−1.9</td>
<td>−0.9</td>
<td>−0.4</td>
<td>−0.5</td>
<td>−1.1</td>
<td>−1.7</td>
<td>−1.6</td>
<td>−1.0</td>
<td>−1.2</td>
<td>−1.0</td>
<td>−0.6</td>
<td>−0.3</td>
<td>−0.1</td>
<td></td>
</tr>
<tr>
<td>International</td>
<td>−2.3</td>
<td>−2.6</td>
<td>−1.5</td>
<td>−1.1</td>
<td>−0.4</td>
<td>−0.3</td>
<td>−0.2</td>
<td>−0.4</td>
<td>−0.2</td>
<td>−0.3</td>
<td>−0.1</td>
<td>−0.5</td>
<td>−0.5</td>
<td>−0.5</td>
<td>−0.6</td>
<td>−0.7</td>
<td></td>
</tr>
<tr>
<td>Fixed-to-mobile</td>
<td>−0.7</td>
<td>−1.3</td>
<td>−1.1</td>
<td>−0.7</td>
<td>−0.5</td>
<td>−0.5</td>
<td>−0.9</td>
<td>−2.7</td>
<td>−2.0</td>
<td>−1.8</td>
<td>−1.7</td>
<td>−2.3</td>
<td>−2.9</td>
<td>−2.4</td>
<td>−2.5</td>
<td>−2.0</td>
<td></td>
</tr>
<tr>
<td>All PSTN</td>
<td>−5.0</td>
<td>−6.9</td>
<td>−5.9</td>
<td>−2.6</td>
<td>1.1</td>
<td>0.2</td>
<td>−1.2</td>
<td>−6.6</td>
<td>−5.4</td>
<td>−5.5</td>
<td>−2.6</td>
<td>−5.8</td>
<td>−7.3</td>
<td>−4.9</td>
<td>−3.2</td>
<td>−5.1</td>
<td></td>
</tr>
<tr>
<td><strong>PSTN residential</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic access</td>
<td>−0.1</td>
<td>2.3</td>
<td>3.7</td>
<td>4.4</td>
<td>5.1</td>
<td>2.5</td>
<td>2.6</td>
<td>−0.6</td>
<td>−0.1</td>
<td>−0.5</td>
<td>−0.1</td>
<td>−0.9</td>
<td>−2.2</td>
<td>−1.0</td>
<td>0.6</td>
<td>−2.7</td>
<td></td>
</tr>
<tr>
<td>Local calls</td>
<td>−0.3</td>
<td>−3.3</td>
<td>−4.7</td>
<td>−2.4</td>
<td>−0.3</td>
<td>−0.8</td>
<td>−2.1</td>
<td>−1.5</td>
<td>−1.1</td>
<td>−1.3</td>
<td>−0.2</td>
<td>−0.8</td>
<td>−1.1</td>
<td>−0.5</td>
<td>−0.1</td>
<td>−0.1</td>
<td></td>
</tr>
<tr>
<td>National long-distance</td>
<td>−1.3</td>
<td>−2.6</td>
<td>−0.7</td>
<td>−1.9</td>
<td>−0.5</td>
<td>0.1</td>
<td>−0.3</td>
<td>−1.0</td>
<td>−2.2</td>
<td>−2.0</td>
<td>−0.9</td>
<td>−1.4</td>
<td>−0.3</td>
<td>−0.1</td>
<td>0.0</td>
<td>0.1</td>
<td></td>
</tr>
<tr>
<td>International</td>
<td>−2.5</td>
<td>−2.9</td>
<td>−1.6</td>
<td>−1.5</td>
<td>−0.3</td>
<td>−0.4</td>
<td>−0.2</td>
<td>−0.4</td>
<td>−0.3</td>
<td>−0.4</td>
<td>−0.2</td>
<td>−0.8</td>
<td>−0.6</td>
<td>−0.7</td>
<td>−0.9</td>
<td>−1.1</td>
<td></td>
</tr>
<tr>
<td>Fixed-to-mobile</td>
<td>−0.4</td>
<td>−0.9</td>
<td>−0.2</td>
<td>−0.8</td>
<td>0.9</td>
<td>0</td>
<td>−0.3</td>
<td>−0.2</td>
<td>−1.8</td>
<td>−2.3</td>
<td>−1.7</td>
<td>−2.4</td>
<td>−2.7</td>
<td>−2.0</td>
<td>−2.6</td>
<td>−1.6</td>
<td></td>
</tr>
<tr>
<td>All residential</td>
<td>−4.7</td>
<td>−7.5</td>
<td>−3.5</td>
<td>−2.1</td>
<td>5</td>
<td>1.4</td>
<td>−0.3</td>
<td>−5.5</td>
<td>−5.4</td>
<td>−6.4</td>
<td>−3.1</td>
<td>−6.4</td>
<td>−6.9</td>
<td>−4.4</td>
<td>−3.0</td>
<td>−5.5</td>
<td></td>
</tr>
</tbody>
</table>
Changes in the prices paid for telecommunications services in Australia, 2013–14

<table>
<thead>
<tr>
<th>Year</th>
<th>PSTN business</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic access</td>
<td>-0.2</td>
<td>1.3</td>
<td>2.7</td>
<td>2.5</td>
<td>1.1</td>
<td>1.7</td>
<td>0.3</td>
<td>-1.5</td>
<td>-1.4</td>
<td>-1.0</td>
<td>1.6</td>
<td>-1.0</td>
<td>-2.1</td>
</tr>
<tr>
<td>Local calls</td>
<td>0.1</td>
<td>-2.2</td>
<td>-5.5</td>
<td>-2.9</td>
<td>-1.7</td>
<td>-0.4</td>
<td>-0.1</td>
<td>-1.5</td>
<td>-0.7</td>
<td>-1.2</td>
<td>-0.5</td>
<td>-0.7</td>
<td>-0.4</td>
</tr>
<tr>
<td>National long-distance</td>
<td>-2.1</td>
<td>-1.8</td>
<td>-2.5</td>
<td>-2.0</td>
<td>-1.7</td>
<td>-1.2</td>
<td>-0.9</td>
<td>-1.5</td>
<td>-1.0</td>
<td>-0.9</td>
<td>-1.0</td>
<td>-0.7</td>
<td>-1.9</td>
</tr>
<tr>
<td>International</td>
<td>-2.0</td>
<td>-2.1</td>
<td>-1.3</td>
<td>-0.4</td>
<td>-0.5</td>
<td>-0.2</td>
<td>-0.2</td>
<td>-0.2</td>
<td>-0.1</td>
<td>0</td>
<td>-0.1</td>
<td>-0.1</td>
<td>-0.3</td>
</tr>
<tr>
<td>Fixed-to-mobile</td>
<td>-1.2</td>
<td>-1.8</td>
<td>-2.6</td>
<td>-0.5</td>
<td>-3.0</td>
<td>-1.5</td>
<td>-2.1</td>
<td>-3.9</td>
<td>-2.4</td>
<td>-0.8</td>
<td>-1.6</td>
<td>-2.1</td>
<td>-3.1</td>
</tr>
<tr>
<td>All business</td>
<td>-5.3</td>
<td>-6.5</td>
<td>-9.3</td>
<td>-3.2</td>
<td>-5.8</td>
<td>-1.6</td>
<td>-2.9</td>
<td>-8.6</td>
<td>-5.5</td>
<td>-4.0</td>
<td>-1.7</td>
<td>-4.7</td>
<td>-7.9</td>
</tr>
</tbody>
</table>

Note: 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 2013–14

<table>
<thead>
<tr>
<th></th>
<th>2012–13</th>
<th>2013–14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic access</td>
<td>100.0</td>
<td>91.8</td>
</tr>
<tr>
<td>Local calls</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>National long-distance</td>
<td>100.0</td>
<td>97.1</td>
</tr>
<tr>
<td>International</td>
<td>100.0</td>
<td>83.6</td>
</tr>
<tr>
<td>Fixed-to-mobile</td>
<td>100.0</td>
<td>95.2</td>
</tr>
<tr>
<td>All VoIP</td>
<td>100.0</td>
<td>93.4</td>
</tr>
</tbody>
</table>

### Table A9  VoIP Points Contribution to VoIP sub-index, 2013–14

<table>
<thead>
<tr>
<th></th>
<th>2013–14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic access</td>
<td>-8.2</td>
</tr>
<tr>
<td>Local calls</td>
<td>0.0</td>
</tr>
<tr>
<td>National long-distance</td>
<td>-2.9</td>
</tr>
<tr>
<td>International</td>
<td>-16.4</td>
</tr>
<tr>
<td>Fixed-to-mobile</td>
<td>-4.8</td>
</tr>
<tr>
<td>All VoIP</td>
<td>-6.6</td>
</tr>
</tbody>
</table>

Note: 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 2013–14

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile services index</td>
<td>100.0</td>
<td>94.9</td>
<td>82.4</td>
<td>76.8</td>
<td>75.9</td>
<td>73.5</td>
<td>64.0</td>
<td>59.8</td>
<td>58.3</td>
<td>55.1</td>
<td>50.8</td>
<td>51.7</td>
<td>49.4</td>
<td>48.9</td>
<td>48.3</td>
<td>47.3</td>
<td></td>
</tr>
</tbody>
</table>

### Table A11 Internet services index by network type and user group, 2006–07 to 2013–14

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DSL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>very low</td>
<td>100.0</td>
<td>98.6</td>
<td>99.0</td>
<td>97.7</td>
<td>97.0</td>
<td>97.9</td>
<td>97.2</td>
<td>96.6</td>
</tr>
<tr>
<td>low</td>
<td>100.0</td>
<td>99.1</td>
<td>98.8</td>
<td>98.2</td>
<td>97.6</td>
<td>96.7</td>
<td>96.1</td>
<td>95.5</td>
</tr>
<tr>
<td>average</td>
<td>100.0</td>
<td>99.5</td>
<td>99.3</td>
<td>98.7</td>
<td>98.1</td>
<td>98.5</td>
<td>97.9</td>
<td>97.4</td>
</tr>
<tr>
<td>high</td>
<td>100.0</td>
<td>98.7</td>
<td>98.5</td>
<td>98.4</td>
<td>97.7</td>
<td>97.0</td>
<td>96.6</td>
<td>96.5</td>
</tr>
<tr>
<td>very high</td>
<td>100.0</td>
<td>98.9</td>
<td>98.8</td>
<td>99.5</td>
<td>98.8</td>
<td>93.5</td>
<td>93.6</td>
<td>93.4</td>
</tr>
<tr>
<td>Cable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>very low</td>
<td>100.0</td>
<td>97.6</td>
<td>99.2</td>
<td>100.2</td>
<td>99.5</td>
<td>99.3</td>
<td>98.1</td>
<td>97.5</td>
</tr>
<tr>
<td>low</td>
<td>100.0</td>
<td>99.1</td>
<td>98.9</td>
<td>98.0</td>
<td>97.3</td>
<td>97.1</td>
<td>96.0</td>
<td>95.0</td>
</tr>
<tr>
<td>average</td>
<td>100.0</td>
<td>99.1</td>
<td>98.9</td>
<td>98.0</td>
<td>97.3</td>
<td>97.1</td>
<td>96.0</td>
<td>95.4</td>
</tr>
<tr>
<td>high</td>
<td>100.0</td>
<td>99.1</td>
<td>98.8</td>
<td>98.0</td>
<td>97.3</td>
<td>97.1</td>
<td>97.2</td>
<td>97.2</td>
</tr>
<tr>
<td>very high</td>
<td>100.0</td>
<td>99.1</td>
<td>98.8</td>
<td>98.0</td>
<td>97.3</td>
<td>99.2</td>
<td>100.7</td>
<td>100.7</td>
</tr>
</tbody>
</table>
## Changes in the prices paid for telecommunications services in Australia, 2013–14

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wireless</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>very low</td>
<td>100.0</td>
<td>97.4</td>
<td>95.9</td>
<td>96.3</td>
<td>96.4</td>
<td>99.4</td>
<td></td>
<td>98.9</td>
</tr>
<tr>
<td>low</td>
<td>100.0</td>
<td>95.7</td>
<td>90.2</td>
<td>88.4</td>
<td>88.7</td>
<td>90.4</td>
<td></td>
<td>89.9</td>
</tr>
<tr>
<td>average</td>
<td>100.0</td>
<td>95.7</td>
<td>90.2</td>
<td>90.5</td>
<td>89.9</td>
<td>88.6</td>
<td></td>
<td>88.4</td>
</tr>
<tr>
<td>high</td>
<td>100.0</td>
<td>96.4</td>
<td>95.6</td>
<td>94.9</td>
<td>94.4</td>
<td>93.8</td>
<td></td>
<td>93.0</td>
</tr>
<tr>
<td>very high</td>
<td>100.0</td>
<td>96.4</td>
<td>95.5</td>
<td>94.0</td>
<td>96.3</td>
<td>95.2</td>
<td></td>
<td>94.6</td>
</tr>
<tr>
<td><strong>NBN</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>very low</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100.0</td>
<td>101.6</td>
</tr>
<tr>
<td>low</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100.0</td>
<td>102.1</td>
</tr>
<tr>
<td>average</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100.0</td>
<td>98.4</td>
</tr>
<tr>
<td>high</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100.0</td>
<td>101.0</td>
</tr>
<tr>
<td>very high</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100.0</td>
<td>101.5</td>
</tr>
</tbody>
</table>

Note: There is no breakdown of consumer groups for dial-up.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DSL</td>
<td>-3.4</td>
<td>-0.2</td>
<td>-1.1</td>
<td>-2.0</td>
<td>-3.2</td>
<td>-1.2</td>
<td>-1.10</td>
</tr>
<tr>
<td>Cable</td>
<td>-1.2</td>
<td>0.1</td>
<td>-0.2</td>
<td>-0.5</td>
<td>0.1</td>
<td>-0.2</td>
<td>-0.28</td>
</tr>
<tr>
<td>Wireless</td>
<td>n/a</td>
<td>-3.2</td>
<td>-4.0</td>
<td>-0.9</td>
<td>0.5</td>
<td>0.6</td>
<td>-0.84</td>
</tr>
<tr>
<td>NBN Broadband</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.05</td>
</tr>
<tr>
<td>All internet services</td>
<td>-6.2</td>
<td>-4.6</td>
<td>-4.9</td>
<td>-3.6</td>
<td>-2.7</td>
<td>-0.9</td>
<td>-2.17</td>
</tr>
</tbody>
</table>

Note: The sum of the components’ points contribution may not add up to the net index change due to rounding.
Changes in the prices paid for telecommunications services in Australia, 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.

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. In 2013–14, this index consists of sub-indices for PSTN (from 1997–98 onwards) and VoIP services (from 2012–13 onwards).
- The mobile services index has also been part of the overall telecommunications services index since April 2001. In 2013–14, 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 2013–14, 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 has been broadened to include VoIP services in this report. The fixed-line voice index comprises sub-indices for PSTN (from 1997–98 onwards) and VoIP services (from 2012–13 onwards). The approach for estimating this index is explained in more detail below.

Approach for estimating fixed-line voice index

The fixed-line voice index includes the PSTN and VoIP sub-indices. The change in PSTN and VoIP sub-indices are weighted by their respective revenue shares and then aggregated to form the fixed-line voice index.

The PSTN and VoIP sub-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 further disaggregated into three consumer groups: residential, small business and other business consumers.

Using this 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 terms 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. These 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.

20 The nominal values are adjusted by using the Australian Bureau of Statistics (ABS) Consumer Price Index (CPI).
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 pricing structures of fixed-line voice and mobile services, e.g. 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 style 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 bundle 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.
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) 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.

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 2013–14. The ABS reported a 3.0 per cent increase in the CPI for this period.

This means that if the nominal price of a commodity did not change over 2013–14, there would be a decrease in the real price. For example, if the cost of internet plan A is $100 in 2012–13 and $100 in 2013–14 the nominal or unadjusted price change over time would be zero. However, given the CPI increase of 3.0 per cent, the real price of Plan A is 3.0 per cent lower in June 2014 ($97) than in June 2013.

Given the inflation rate of 3.0 per cent in 2013–14, 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 3.0 per cent, the nominal price level has increased.
- If the real price index declined by 3.0 per cent, there is no change in the nominal price level.
- If the real price index declined by more than 3.0 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.

---

21 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.

22 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.

23 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. In fact, it is a strategy used by many service providers to maintain certain price points for their plans (e.g., $29, $49, $69) and instead vary service quality and/or quantum of inclusions.

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 a component in a basket 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 for the Division 12 report.

The Division 12 RKR has been revised on numerous occasions and was most recently revised in July 2013. This revision implemented changes including a requirement for carriers to report on VoIP and broadband services provided over the NBN.

Table B1 shows which companies are currently required to report on fixed-line voice, mobile and internet services under the Division 12 RKR.

<table>
<thead>
<tr>
<th>Category name</th>
<th>Reporting carriers and carriage service providers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed-line voice services information</td>
<td>Telstra, Singtel Optus, iiNet, TPG</td>
</tr>
<tr>
<td>Mobile services information</td>
<td>Telstra, Singtel Optus, VHA</td>
</tr>
<tr>
<td>Internet services information (including wireless, DSL, cable and NBN)</td>
<td>Telstra, Singtel Optus, iiNet, VHA, TPG</td>
</tr>
</tbody>
</table>

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

24 The complete table is at Schedule A of the July 2013 Division 12 RKR.
ACCC contacts

Website: www.accc.gov.au.
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
Fax: 02 6243 1199

New South Wales
Level 20
175 Pitt Street
Sydney NSW 2000
GPO Box 3648
Sydney NSW 2001
Tel: 02 9230 9133
Fax: 02 9223 1092

Queensland
Brisbane
Level 24
400 George Street
Brisbane Qld 4000
PO Box 12241
George Street Post Shop
Brisbane Qld 4003
Tel: 07 3835 4666
Fax: 07 3835 4653

Townsville
Suite 2, Level 9
Suncorp Plaza
61–73 Sturt Street
Townsville Qld 4810
PO Box 2016
Townsville Qld 4810
Tel: 07 4729 2666
Fax: 07 4721 1538

Victoria
Level 35
The Tower
360 Elizabeth Street
Melbourne Central
Melbourne Vic 3000
GPO Box 520
Melbourne Vic 3001
Tel: 03 9290 1800
Fax: 03 9663 3699

South Australia
Level 2
19 Grenfell Street
Adelaide SA 5000
GPO Box 922
Adelaide SA 5001
Tel: 08 8213 3444
Fax: 08 8410 4155

Western Australia
3rd floor, East Point Plaza
233 Adelaide Terrace
Perth WA 6000
PO Box 6381
East Perth WA 6892
Tel: 08 9325 0600
Fax: 08 9325 5976

Northern Territory
Level 8
National Mutual Centre
9–11 Cavenagh St
Darwin NT 0800
GPO Box 3056
Darwin NT 0801
Tel: 08 8946 9666
Fax: 08 8946 9600

Tasmania
Level 2
Telstra Building
70 Collins Street
Hobart Tas 7000
GPO Box 1210
Hobart Tas 7001
Tel: 03 6215 9333
Fax: 03 6234 7796