



Australian
Competition &
Consumer
Commission

Telecommunications competitive safeguards for 2008–2009

Changes in the prices paid for telecommunications services in Australia 2008–2009

2008–09

ACCC telecommunications reports 2008–09

This publication contains two reports:

Report 1 Telecommunications competitive safeguards for 2008–09

**Report 2 Changes in prices paid for telecommunications services
in Australia, 2008–09**

Australian Competition and Consumer Commission
23 Marcus Clarke Street, Canberra, Australian Capital Territory, 2601

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Australian
Competition &
Consumer
Commission

Contact officer: Michael Cosgrave
Contact phone: (03) 9290 1914

1 June 2010

Senator Stephen Conroy
Minister for Broadband, Communications and the Digital Economy
Parliament House
CANBERRA ACT 2600

Dear Minister

The Australian Competition and Consumer Commission (ACCC) is required under the *Trade Practices Act 1974* (TPA) to review and report annually on:

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

Enclosed are the two reports for the 2008–09 financial year. As you are aware, subsections 151CL(5) and 151CM(3) of the TPA require you to table both reports in each house of parliament within 15 sitting days of receipt.

Report 1—Telecommunications competitive safeguards

Markets for Australian telecommunications are continuing to evolve. In 2008–09, this has taken the form of increased innovation in mobile platforms, and continuing uptake and utilisation of data services over fixed and mobile networks.

Other key developments noted in the report include:

- Mobile broadband services have demonstrated strong growth with SIOs increasing by 120 per cent, and mobile voice services increasing by 9.6 per cent, in 2008–09.

- Subscribers are increasingly accessing the internet via broadband services. By June 2009, seven out of eight internet subscribers were using a broadband platform. Subscribers are also migrating to faster internet connection speeds; over 2008–09 the number of subscribers signing up for speeds between 1.5 and 8 Mbps increased 59 per cent.
- Average real prices for dial-up services and DSL internet services have fallen by 13.8 per cent and 0.4 per cent respectively, while cable internet services prices have increased by 0.5 per cent.
- Fixed-line access services have reduced by three per cent in 2008–09.
- Within the areas in which access lines can be economically unbundled, uptake of the unconditioned local loop service (ULLS) and line sharing service (LSS) have continued to grow; accounting for approximately 15 per cent of Telstra lines by the end of 2009.
- However, the footprint in which these services are being acquired has essentially remained constant, growing from 521 to 541 (mostly metropolitan) service areas. This suggests that markets may be approaching a natural limit to the competitive advances that can be made within the current regulatory regime, with its focus on unbundling of a legacy copper network. This reflects the technological limitations of this network to support unbundling in those areas where it has not yet developed (regional areas) and the additional costs faced by competitors in entering those areas.
- Industry capital investment remains at historically high levels, at \$10.8 billion, which is at a comparable level to 2007–08 investment, and more than twice the expenditure in 2005–06 (\$5.2 billion).
- Mobile service providers contributed strongly to this investment result. Investments in international transmission routes also occurred. To a lesser extent, DSLAM investment and domestic backhaul also continued during 2008–09.
- At the end of 2008–09, Telstra continues to dominate telecommunication markets in Australia. Telstra holds the largest market share of the fixed voice, fixed broadband, mobile voice and mobile broadband.

The industry continues to rely heavily on regulatory mechanisms to promote and achieve competitive outcomes, and continues to have an extremely high level of disputation and litigation—in 2008–09, the ACCC was notified of a further 12 access disputes. At the end of the reporting period, there were 38 disputes awaiting determination.

In addition, telecommunications markets are delivering outcomes that do not meet all consumers' expectations, with consumer complaints continuing to increase. In this regard, during 2008–09, the ACCC accepted undertakings from network operators to improve the clarity and reasonableness of marketing practices.

At the time of writing, there were a number of developments with the clear potential to strengthen the competitive landscape for telecommunications services, and alter the form of access regulation that is likely to be required in future. These include the government's proposed reforms to the telecommunications access regime and the announced roll-out of the NBN to be operated on an open access wholesale business model.

Report 2—Changes in the prices paid for telecommunications services in Australia

In 2008–09 the average real price for telecommunication services declined by 6.1 per cent. Within this, average real prices for fixed-line voice services declined 2.6 per cent; whereas prices for mobile voice services and internet (fixed and mobile) services declined at 7.8 per cent and 4.6 per cent respectively.

For the second successive year, price reductions for residential customers exceeded those for business consumers. It is likely that the 'bucket' subscription plans and bundling discounts for residential customers have each contributed to this.

Yours sincerely

A handwritten signature in black ink that reads "Graeme Samuel". The signature is written in a cursive, flowing style.

Graeme Samuel
Chairman

List of shortened forms

3G	third-generation mobile communications
ABS	Australian Bureau of Statistics
ACCC	Australian Competition and Consumer Commission
ACMA	Australian Communications and Media Authority
ACT	Australian Competition Tribunal
ADSL	asymmetric digital subscriber line
ADSL2+	currently deployed version of ADSL
BCS	basic carriage service
CAN	customer access network
CDMA	code division multiple access
CPI	consumer price index
CSG	customer service guarantee
CSP	carriage service provider
DDAS	digital data access service
DOCSIS 3	data over cable service interface specification 3
DSL	digital subscriber line
DSLAM	digital subscriber line access multiplexer
DTCS	domestic transmission capacity service
ESA	exchange service area
FTM	fixed-to-mobile
FTTH	fibre-to-the-home also referred to as FTTP (fibre-to-the-premises)
FTTN	fibre-to-the-node
FTTP	fibre-to-the-premises
Gbps	gigabits per second
GSM	global system for mobile communications
HFC	hybrid fibre coaxial
HHI	Herfindahl-Hirschman Index
HSPA	high-speed packet access (generic)

HSDPA	high-speed downlink packet access
IAD	internet access device
IIA	Internet Industry Association
IP	internet protocol
IPTV	internet protocol television
ISP	internet service provider
ISDN	integrated services digital network
Kbps	kilobits per second
LCS	local carriage service
LSS	line sharing service
LTE	long-term evolution
LTIE	long-term interests of end-users
Mbps	megabits per second
MDF	main distribution frame
MPS	mobile premium services
MSAN	multi-service access node
MTAS	mobile terminating access service
MVNO	mobile virtual network operator
NBN	national broadband network
NBN Co	National Broadband Network Co Limited
NPTC	non-price terms and conditions
NRF	network reliability framework
OECD	Organisation for Economic Co-operation and Development
OSP	operational separation plan
POTS	plain old telephone service
PSTN	public switched telephone network
PSTN OA	public switched telephone network originating access
PSTN OTA	public switched telephone network originating/terminating access
PSTN TA	public switched telephone network terminating access
RAF	regulatory accounting framework

RKR	record-keeping rule
SAO	standard access obligation
SAU	special access undertakings
SHDSL	single-pair high-speed digital subscriber line
SIOs	services in operation
SMS	short messaging service
Tbps	Terabits per second
TEA	Telstra efficient access (Telstra cost model)
TIO	Telecommunications Industry Ombudsman
TPA	<i>Trade Practices Act 1974</i>
TSLRIC	total service long-run incremental cost
TSLRIC+	total service long-run incremental cost plus an allocation of common and indirect costs
ULLS	unconditioned local loop service
USB	universal serial bus
VDSL2	second-generation very high speed digital subscriber line
VoD	video on demand
VoIP	voice over internet protocol
WiMax	worldwide interoperability for microwave access (a wireless broadband family of technologies)
WLR	wholesale line rental

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Telecommunications competitive safeguards for 2008–09

Report to the Minister for Broadband, Communications and the Digital Economy

Key developments

ACCC telecommunications reports 2008–09

The Australian Competition and Consumer Commission (ACCC) observed a number of key developments in the 12 months to June 2009 relating to the emergence of competition in the telecommunications sector, the level and nature of industry investment and the changing behaviour of Australian consumers of telecommunications services. These are highlighted in the following table.

Key statistics

- The total number of voice services (fixed plus mobile) grew by approximately 1.8 million during 2008–09 (fixed dropped by 300 000 and mobile grew by 2.1 million) (report 1, section 2.5.2).
- Average real price reductions were experienced for voice services, with public switched telephone network (PSTN) services falling by 2.6 per cent (report 1, section 2.4); and mobile voice services falling by 7.8 per cent (report 1, section 2.6.4).
- PSTN voice revenues have continued to decline in 2008–09, with competing carriers' fixed-line voice revenues falling at a faster rate than Telstra's.
- Broadband subscribers as a percentage of total internet subscribers increased from 67 per cent to 87.5 per cent between March 2007 and June 2009, representing an increase in broadband subscription by approximately three million (report 1, section 2.8.2).
- Subscription to mobile broadband services grew by 120 per cent in response to significant price reductions (report 1, section 2.8.3) and mobile data revenue (as a percentage of mobile services revenue) increased by 33 per cent for Telstra, 35 per cent for Optus and 34 per cent for Hutchison.
- Average real prices for fixed-line DSL and cable broadband services remained steady, with DSL prices decreasing by 0.4 per cent and cable broadband prices increasing by 0.5 per cent (report 1, section 2.8.4).
- The take-up of unbundled lines in 2008–09 reached over 1.4 million, representing a continuing increase in the percentage of access lines used to supply unconditioned local loop service (ULLS) and line sharing service (LSS): up from six per cent in 2007 to approximately 15 per cent by the end of 2009 (report 1, section 2.8.3).
- Unbundling has led to greater competition in the provision of broadband in relevant areas (report 1, section 2.8.3); however, this footprint expanded only slightly in 2008–09, remaining heavily concentrated in metropolitan areas (report 1, section 2.8.3).
- High levels of concentration continue to be observed in retail fixed voice services, fixed broadband services and mobile services. Telstra has more than 70 per cent of all fixed voice subscribers, a market share in excess of 40 per cent of the total fixed broadband subscriber base, and over 40 per cent of the subscriber market share in the mobile sector (report 1, section 2.1.1).

Chronology

- **December 2008**—Optus announced that it had achieved third-generation mobile communications (3G) coverage to 96 per cent of the Australian population.
- **January 2009**—Telstra announced that it had completed its upgrade of the Next G network to reach theoretical downlink speeds of 21 megabits per second (Mbps). Telstra also announced network coverage to 99 per cent of the Australian population.
- **March 2009**—Internode launched a single-pair high-speed digital subscriber line (SHDSL) service with downstream speeds of 5–40 Mbps in Adelaide's CBD.
- **March 2009**—A joint venture was announced between Internode and Opticomm, to provide 1000 new homes in Brisbane with fibre-to-the-home (FTTH) speeds between 25 and 100 Mbps.
- **April 2009**—The Australian Government announced the formation of a new company to build and operate the national broadband network (NBN).
- **April 2009**—Telstra announced plans to upgrade its Velocity FTTH technology in new housing developments to theoretical peak speeds of 100 Mbps.
- **May 2009**—The ACCC announced that it would not oppose the proposed merger between Vodafone and Hutchison.
- **June 2009**—Telstra announced that it had upgraded its Next G network to theoretical network uplink speeds of 5.8 Mbps.
- **July 2009**—Services commenced over the Basslink fibre cable, providing the first non-Telstra fibre link to Tasmania, with competing service providers using this link to offer services (including naked digital subscriber line (DSL) services).
- **September 2009**—Telstra announced it had asymmetric digital subscriber line 2+ (ADSL2+) coverage to 88 per cent of Tasmania.
- **October 2009**—Telstra completed a fibre link from Adelaide to Perth via Darwin.
- **October 2009**—Pipe Networks activated its PPC-1 cable from Sydney to Guam, providing onward connectivity to Asia and the United States.
- **November 2009**—iiNet announced plans to expand its DSL network to an additional eight exchanges.

1 Summary

Under Part XIB, Division 11, s. 151 CL(1) of the *Trade Practices Act 1974* (the TPA), the Australian Competition and Consumer Commission (ACCC) is required to provide the Minister for Broadband, Communications and the Digital Economy (the Minister) with an annual report on competitive safeguards within the Australian telecommunications industry.

This report covers the financial year 2008–09 and ongoing developments occurring in the 2009 calendar year. All of the ACCC publications referred to in this report are available at www.accc.gov.au.

The key findings of the report are outlined below.

1.1 State of competition

Markets for Australian telecommunications are continuing to evolve. In 2008–09, this has taken the form of increased innovation in mobile platforms, and continuing uptake and utilisation of data services over fixed and mobile networks.

The take-up and usage of fixed voice and mobile voice services followed different paths during 2008–09. Mobile voice services have shown strong growth, with services in operation (SIOs) increasing by 9.6 per cent. The take-up of fixed services has, on the other hand, trended downwards, with fixed voice SIOs declining by 3 per cent.

The percentage of households with internet access has continued to rise. In 2008–09, 72 per cent of households had internet access at home. Subscribers are increasingly choosing to access the internet over a broadband platform: by June 2009, seven out of every eight online subscribers in Australia were accessing the internet via broadband services.

Household customers are also migrating to faster internet connections and accessing plans that support much greater usage: between June 2008 and June 2009 the number of subscribers signing up for connection speeds of between 1.5 and 8 megabits per second (Mbps) had increased by 59 per cent.

Industry maintained a high level of investment in the Australian telecommunications sector during 2008–09. Telstra announced that it had completed upgrades to its Next G network, and Optus announced that it was continuing to expand its third-generation mobile communications (3G) coverage.

Fixed wireless networks were also being constructed, including Adam Internet launching the first phase of its worldwide interoperability for microwave access (WiMax) network in Adelaide.

Telstra announced that it had further expanded its digital subscriber line (DSL) network coverage, and a variety of competing service providers also installed additional digital subscriber line access multiplexers (DSLAMs) and/or announced plans to do so.

Investment also occurred in the fibre-to-the-home (FTTH) access networks in new housing developments, with Telstra, Internode (in a joint venture with OptiComm) and TransACT all investing in new estates.

At the end of 2008–09, however, Telstra continued to dominate telecommunications markets in Australia. Telstra holds the largest share of the fixed voice, fixed broadband, mobile voice and mobile broadband markets.

Mobile services remained more competitive during 2008–09, notwithstanding that the mobile services market ended the year more concentrated following the merger of Vodafone and Hutchison, the third- and fourth-largest network operators.

Over 2008–09, mobile broadband services provided a further opportunity to mobile operators to differentiate service offerings. The number of subscriptions to these services increased by 120 per cent, from a relatively low base, prompted by price declines of 18.5 per cent.

As a result, over 2008–09, mobile data was responsible for between 33 and 35 per cent of each of the mobile network operators' revenue. Telstra, the largest provider of fixed and mobile services, announced that, for the first time, its mobile service revenue exceeded its fixed voice revenue—27 per cent to 25 per cent.

Progress towards effective infrastructure-based competition in fixed-line services remained comparatively slow, anchored to higher population centres. The take-up of unbundled services continued to increase over 2008–09, but typically within much the same overall footprint as at the start of the year. This reflects the limits of the copper customer access network (CAN) to support high-quality broadband in regional areas—where long access lines are more prevalent—and the additional costs faced by competing service providers of supplying in those areas.

That said, unbundling, coupled with technological advancements and investments, continued to deliver better services to end-users in relevant service areas, and by the end of the year unbundled lines represented 15 per cent of lines supplied over Telstra's CAN.

There is some—albeit relatively limited—potential for the competitive area to expand. As demonstrated by the experience in Tasmania following the commissioning of the Basslink fibre cable, competitive transmission services can encourage complementary investment in DSL networks.

At the end of 2008–09, various initiatives had been announced with the clear potential to strengthen the competitive landscape for telecommunications services, and alter the form of access regulation that is likely to be required in future.

These initiatives include the Australian Government's announcement of a new wholesale-only company to build and operate the national broadband network (NBN), and the proposed Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Bill 2009.

1.2 ACCC telecommunications regulatory activities

1.2.1 Anti-competitive conduct and consumer safeguards

The ACCC undertook four major investigations into anti-competitive conduct during the 2008–09 reporting period. Three of these investigations were concluded because there was insufficient material to substantiate the alleged conduct, and the fourth investigation is ongoing.

During 2008–09 the ACCC received more than 4559 complaints concerning consumer protection issues in the telecommunications sector. This is an 8.4 per cent increase from the 4207 complaints received in the previous year.

Twenty-seven active and major investigations into consumer protection issues were progressed in 2008–09. The ACCC accepted court enforceable undertakings from each of Telstra, Optus and Vodafone Hutchison Australia in August 2009. These oblige those network operators to review and improve their advertising practices, and will also provide guidance to other service providers concerning their advertising practices.

The ACCC also took action against a number of companies concerning the advertising of mobile premium services, and pursued legal actions against the three largest phone card suppliers concerning misleading conduct.

The ACCC received a number of third line forcing notifications from participants in the telecommunications industry in 2008–09. All of these notifications were allowed to stand on public benefit grounds.

In March 2009 the ACCC instituted proceedings against Telstra in the Federal Court for contraventions of the standard access obligations (SAOs) in the TPA and the facilities access regime in the *Telecommunications Act 1997* (Telco Act). On 31 July 2009, Telstra filed a defence including admissions to the majority of the ACCC's pleaded contraventions. At the time of writing a hearing on relief was ongoing. The ACCC is seeking a pecuniary penalty, declarations and injunctions.

1.2.2 Monitoring and reporting under Part XIB

In 2008–09 the ACCC continued its existing monitoring and reporting responsibilities. It:

- provided the Minister with a report on Telstra's compliance with retail price controls
- provided the Minister with a report about the nature of price control arrangements that should apply to Telstra from 1 July 2010 to 30 June 2012
- published periodic summary data of Telstra's Customer Access Network Record-Keeping Rules (CAN RKR) information, and received 17 responses from industry in response to the Audit of Telecommunications Infrastructure Assets RKR
- revised the RKR issued to telecommunications carriers and carriage service providers (CSPs) issued in December 2004 for the purposes of the ACCC's monitoring and reporting requirements under Division

12 of Part XIB of the TPA; and added TPG, SP Telemedia and Unwired to the list of carriers and CSPs required to report under the revised RKR

- released the imputation analysis and non-price terms and conditions (NPTC) report on Telstra's accounting separation of its wholesale and retail operations for each of the quarters from June 2008 to June 2009
- continued to provide six-monthly reports on Telstra's current cost accounting
- continued to monitor the effects of bundling on competition through the ACCC's Bundled Service RKR—the number of residential customers choosing to bundle additional services continues to grow, including the bundling of additional services (such as mobile broadband services) with fixed-line voice services
- issued a disclosure direction to Telstra to publicly report each month data prepared under the Access to Telstra Exchange Facilities RKR
- continued to monitor developments in relation to the acquisition of exclusive rights for compelling content in new media sectors and free-to-air and subscription television sectors.

1.2.3 Access to telecommunications services under Part XIC

Declaration inquiries

The ACCC conducted a number of declaration inquiries during 2008–09, and decided to:

- allow the declaration of the digital data access service (DDAS) and integrated services digital network (ISDN) services to expire on 30 June 2009 without making a new declaration
- vary the domestic transmission capacity service (DTCS) declaration to exclude certain capital-regional transmission routes and inter-exchange transmission in certain (metropolitan) exchange service areas (ESAs)—the exclusions had previously been the subject of exemptions made in November 2008—and extend the expiry date of the declaration until 31 March 2014
- extend the expiry date of the declaration of the six fixed-line services until 31 July 2014
- not vary the unconditional local loop service (ULLS) declaration service description
- extend the expiry date of the existing mobile terminating access service (MTAS) declaration to 30 June 2014.

The ACCC also commenced an inquiry into the appropriate service description to apply to the DTCS.

Exemptions

The ACCC can exempt a carrier or CSP from complying with its SAOs where it would be in the long-term interests of end-users to do so.

The 2008–09 reporting period witnessed a high level of exemption activity, with the ACCC making determinations on a number of exemption applications. These decisions were appealed to the Australian Competition Tribunal (ACT), and in turn the Full Federal Court conducted a review of some of the ACT's decisions.

WLR/LCS

In August 2008 the ACCC decided to grant Telstra exemptions in relation to the supply of wholesale line rental (WLR) and local carriage service (LCS) in certain ESAs. The ACCC's decision was later reviewed by the ACT, and the ACT's determination was also subject to a judicial review by the Full Federal Court. Following the judicial review, the ACT reassessed the exemption orders, and in May 2009 made exemption orders which are subject to several conditions and limitations.

PSTN OA

In October 2008 the ACCC granted Telstra exemption in relation to the supply of public switched telephone network originating access (PSTN OA) in certain CBD and metropolitan areas. On appeal, the ACT varied the PSTN OA metropolitan exemptions (to be on the same terms as the ACT's WLR/LCS exemptions) and affirmed the ACCC's PSTN OA CBD exemptions.

DTCS

In November 2008 the ACCC granted Telstra exemption on certain capital-regional routes, and inter-exchange transmission in metropolitan ESAs and CBD ESAs. The ACCC refused Telstra's application for exemptions from the supply of tail-end DTCS in metropolitan and CBD areas. The ACCC also extended the exemptions to other carriers, by making a class exemption in like terms.

Hybrid fibre coaxial services

In November 2008 the ACCC decided not to exempt Telstra in respect of its supply to Optus of all regulated services in areas that coincide with Optus's cable network. Telstra appealed this decision to the ACT, and in May 2009 the ACT affirmed the ACCC's original decision.

Undertakings

The ACCC received an ordinary access undertaking from Telstra on 3 March 2008 in relation to its ULLS monthly charge, and in April 2009 the ACCC decided to reject the undertaking on the basis that it was unreasonable. Telstra appealed the ACCC's decision to the ACT. At the time of writing the ACT is yet to make its final decision.

Access disputes

Twelve new access disputes were lodged with the ACCC over the 2008–09 reporting period—six disputes in relation to the fixed-line network and six in relation to the MTAS. The ACCC made four new interim determinations and extended the operation of nine existing interim determinations. No final determinations were made by the ACCC during this period.

In July 2009, Telstra's appeals to the Federal Court in respect of the ULLS and LSS final determinations made by the ACCC in 2007–08 were dismissed.

1.2.4 Activities under the Telecommunications Act

As required under the Telco Act, Telstra has provided the Minister with an operational separation plan (OSP).

In 2008–09, the ACCC continued to perform its role of monitoring Telstra's compliance with the OSP, including the price equivalence framework which was established under it. This framework is used to test the revenue margin resulting from changes in wholesale and/or retail prices as a guide to identifying possible anti-competitive pricing conduct by Telstra.

The Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Bill 2009, which has been introduced into parliament, provides a new framework by which to implement separation arrangements for Telstra.

The ACCC also has a role in arbitrating disputes between parties under the Telco Act. Disputes covered by the Telco Act include:

- access to telecommunications transmission towers and underground facilities (pursuant to the facilities access code)
- access to supplementary facilities (such as exchanges)
- provision of pre-selection and number portability.

During 2008–09 one access dispute was lodged under the Telco Act.

1.2.5 Activities under the Radiocommunications Act

The ACCC administers an access regime under the *Radiocommunications Act 1992* for digital radio multiplex transmission services. The multiplex licensees submitted access undertakings to the ACCC in October 2008, setting out the terms and conditions on which they proposed to provide access to commercial and community broadcasters. The ACCC rejected the undertakings and, following a consultation process, specified a modified undertaking to apply to the digital radio multiplex licensees.

2 Overview of the state of competition in telecommunications markets

2.1 Introduction

The effectiveness of competition in telecommunications markets is a strong indicator of the health of the industry in terms of the incentives for firms to invest, innovate and compete for end-users.

A review of the current state of competition in telecommunications markets demonstrates that markets in Australia are changing. After a period of sustained growth, the expansion of areas subject to unconditioned local loop service (ULLS) based competition has slowed significantly. This suggests that markets may be approaching the natural limit to the competitive advances that can be made within the current regulatory regime and given the technological limitations of the copper network.

The Australian Government has recognised the vital importance of ensuring a healthy and competitive telecommunications sector with its proposed changes to the regulatory regime and the structure of the sector. This includes the development of the government's national broadband network (NBN) policy and the creation of a new wholesale-only open-access operator, National Broadband Network Co Limited (NBN Co), to roll out the NBN.

At the time of writing, several significant reforms were pending consideration by parliament, including:

- the Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Bill 2009, which proposes a number of major changes to the structure of the industry and significant reforms to the regulatory regime
- the Telecommunications Legislation Amendment (National Broadband Network Measures—Network Information) Bill 2009
- the Telecommunications Legislation Amendment (Fibre Deployment) Bill 2010.

The current state of competition is therefore considered at a time when we are on the cusp of major policy and regulatory reforms which have the potential to bring about fundamental changes to the telecommunications industry.

2.1.1 The nature of competition in telecommunications markets

Telecommunications markets typically exhibit a number of factors that can impede the development of competition. The high fixed and sunk costs of building certain networks can deter or prevent potential competitors from entering markets, or limit the extent to which those that enter markets can compete.

On the other hand, many aspects of telecommunications are by their nature highly dynamic, characterised by technological advances. This can provide entrants with the means and opportunity to compete for business.

A key theme that emerges from this review is that competition remains heavily focused on those services and areas where competitors have been able to invest in competing infrastructure.

In mobile markets, where it has been economic for service providers to build competing access networks, competition remained strong and intensified over 2008–09. This was despite consolidation in the number of network operators, as a consequence of the merging of the third- and fourth-ranked operators during the year.

This competition was encouraged by continued growth in the number of subscribers, in revenue, and in technological development of connected devices (smartphones).

In 2008–09, penetration of mobile broadband services—which provide access to lower bandwidth data applications, typically via portable computing devices—increased very substantially, to more than 2.1 million subscribers. Continued discounting by service providers contributed to this strong growth in uptake.

As was the case for fixed-line networks when digital subscriber line (DSL) services first gained widespread appeal, the emergence of broadband as an additional product offering has given mobile service providers a further opportunity to differentiate their services and compete for new customers. It has also generated a further revenue stream from which to recover costs and drive investment.

Price competition was more intense for mobile broadband services than for other, more mature, mobile services. In 2008–09 the price of mobile broadband services fell by 18.5 per cent, while average prices for global system for mobile communications (GSM) services and third-generation mobile communications (3G) services fell by 10.8 per cent and 4.2 per cent respectively. Mobile services continued to be typically priced on an overall subscription model with ‘bucket plans’ permitting usage up to nominated limits without additional charge.

Market shares for mobile services finished 2008–09 largely unchanged, with Optus, as the second largest operator, holding around 30 per cent against Telstra’s stake of just over 40 per cent.

When looking at competition in a market, analysts and regulators look at structural features such as the number of sellers, their market shares, the service concentration levels and the barriers to entry and exit (such as the high sunk costs traditionally associated with communications services). The Herfindahl-Hirschman Index (HHI) is a metric used to estimate the level of concentration of markets, as well as changes in the concentration of markets as a result of a merger (see appendix C).

As noted in the ACCC’s June 2009 assessment of the Vodafone Hutchison proposed merger, the mobile phone services sector is ‘highly concentrated’.¹ In 2008–09 the mobile services sector had an HHI score of 2905. While marginally lower than in 2007–08, this is well over the threshold score of 2000, above which the ACCC’s 2008 *Merger guidelines* recognises preliminary competition concerns may arise.

In fixed-line (voice and broadband) services, the number of lines and services in operation (SIOs) declined slightly in 2008–09, and fewer calls were carried. For instance, the number of lines in operation in Telstra’s customer access network (CAN) declined by 1.8 per cent. On the other hand, significantly higher usage of

¹ Vodafone Group plc and Hutchison 3G Australia Pty Limited—proposed merger of Australian mobile operations, Public Competition Assessment, 24 June 2009, para 74. Ultimately, the ACCC decided not to oppose the proposed merger. See below at 2.1.2 and 2.6.3.

broadband services was evident from the increasing data allowances attached to plans and the offering of 'unmetered' traffic.

Average real prices paid for fixed voice public switched telephone network (PSTN) services declined by 2.6 per cent in 2008–09. Fixed-line broadband service pricing remained steady, with average real prices for DSL decreasing by 0.4 per cent and cable broadband service prices increasing by 0.5 per cent.

Unlike mobile networks, competing fixed-line access networks—the 'local loop' or 'last mile' connecting customers to their nearest telephone exchange—have not developed to the same extent, reflecting the much higher fixed and sunk costs of those networks.

As a result, Telstra continues to possess substantial market power from its ownership and control of the ubiquitous fixed-line CAN. HHI scores of 5559 and 3341 were observed in 2008–09 for fixed voice and fixed broadband services respectively. Telstra continued to dominate these highly concentrated fixed line service markets.

As has been the case for each of the last three years, Telstra maintained a market share of more than 70 per cent of fixed voice subscribers, against its nearest rival's stake of 13 per cent or less (see Figure 2.2). In the last year, Telstra has held in excess of 40 per cent of the total fixed broadband subscriber base, against the number two provider's share of 17 per cent (see Figure 2.10).² Further, as demonstrated by Telstra's regulatory accounting framework (RAF) accounts, the services that Telstra supplies over its fixed-line networks remain highly profitable.

Access regulation of bottleneck networks can provide a mechanism to facilitate market entry and promote competition in the supply of downstream services. However, there are natural limits to the effectiveness of this regulation, as it does not remove the incentives of the access provider to deny access or to impose access terms that stifle competitors.

Over the last five years, access regulation—together with end-user demand for high-quality DSL services—has enabled competing service providers to build their own networks and compete in the supply of fixed-line services in certain areas. This 'competitive footprint' has, however, yet to extend from its base in metropolitan or high-population regional centres.

Within this 'competitive footprint' competing service providers continued to win market share from the incumbent, such that ULLS and line sharing service (LSS) lines accounted for around 15 per cent of total CAN lines in all areas at the end of 2009. End-users continued to benefit from this competition, with access to a greater range of service offerings, including naked DSL services. Naked DSL in turn facilitates competing voice over internet protocol (VoIP) service offerings, as line rental charges can be avoided.

A notable feature of this broadband competition during 2008–09 was the increased data allowances made available to end-users, following increasing capacity on international transmission links, and consequent price reductions for international transmission. At the end of 2009, data allowances were significantly more generous for services supplied over unbundled access lines than for equivalently priced mobile service broadband offerings, or DSL services supplied outside the competitive footprint.

² Telstra also dominates the overall fixed broadband services segment (including both DSL and hybrid fibre coaxial (HFC) provided services), with a 44 per cent subscriber market share against Optus's share of 17 per cent (see Figure 2.10).

This ULLS-based competition was sufficient for the ACCC to conditionally roll back regulation, with exemptions granted for certain services in many of the service areas with ULLS-based competition. In 2008–09 Telstra was exempted from complying with standard access obligations (SAOs) to supply wholesale line rental (WLR), local carriage service (LCS) and PSTN originating access (PSTN OA) services in these areas.³

The exemptions will not, however, apply in service areas where the relevant exchange is ‘capped’ or to lines over which an LSS is being supplied. This reflects the ongoing importance of timely access to exchange facilities and integrated migration processes to unbundling of access lines.

Over 2008–09, the ‘competitive footprint’ grew only modestly. For example, the number of exchanges supporting at least one competing DSL network increased from 521 to 541 exchanges.⁴ In total, there are over 5000 exchange service areas (ESAs), although a large number of these support relatively few subscribers.

The competitive footprint remained predominantly within metropolitan boundaries. By the end of 2008–09, 458 (or around 75 per cent of the total number of) metropolitan ESAs were supporting at least one competing DSL network—as opposed to 83 in regional areas.

Exemptions were also granted to Telstra in relation to the domestic transmission capacity service (DTCS) on specified routes where effective competition was found to exist. However, effective facilities-based competition in transmission services is yet to emerge in respect of a large proportion of regional areas.

Consequently, competition in fixed-line services—both voice and broadband—has continued to develop slowly across geographic regions, and is yet to develop as fully as envisaged in 1997 when the sector opened to competition.

That said, a number of service providers continue to offer services in other areas by acquiring resale services, potentially with a view to investing in their own network facilities once they have accumulated a sufficiently large customer base. This is a business model that has previously been used by competing service providers.

There are a number of potential developments that could provide further impetus for competition for fixed-line services, including across a wider geographic base.

Competition strengthened for broadband services in Tasmania during 2009 following the introduction of competing transmission services on the Basslink fibre cable. Similarly, new transmission routes, such as those constructed under the Australian Government’s Regional Backbone Blackspots Program (outlined further below), may see new markets open where lack of competitively priced backhaul services has been inhibiting the roll-out of services.⁵

3 *Telstra Corporation Limited v Australian Competition Tribunal* [2009] FCAFC 23 (11 March 2009); *Application by Chime Communications Pty Ltd (No 2)* [2009] ACompT 2 (27 May 2009); *Application by Chime Communications Pty Ltd (No 3)* [2009] ACompT 4 (24 August 2009).

4 Telstra CAN Record-Keeping Rule (RKR), December 2009, available on the ACCC website.

5 See Department of Broadband, Communications and the Digital Economy website, http://www.dbcde.gov.au/funding_and_programs/national_broadband_network/national_broadband_network_Regional_Backbone_Blackspots_Program, accessed 22 April 2010; L Coleman, ‘iiNet-Optus deal opens up 8 new ADSL2+ exchanges’, *Communications Day*, 3 November 2009.

The Australian Government is considering a number of reforms to strengthen the operation of the telecommunications access regime, and is also considering reducing the level of vertical integration present in this sector.

In the longer term, the progressive roll-out of the NBN to be operated by a wholesale-only network operator on an open-access basis—which will support more innovative and higher quality services than are possible over the copper CAN, and expand the geographic regions capable of supporting more vigorous competition—is likely to significantly strengthen competition in the supply of fixed-line services.

2.1.2 Overview of industry developments

In February 2009, the ACCC commenced an informal review of the proposed merger of Vodafone's and Hutchison's Australian mobile operations. A key consideration in the ACCC's investigation was whether increased concentration in the mobile sector would result in reduced pricing pressure for retail mobile telecommunications services.

The ACCC considered evidence which suggested that, individually, without this merger, the parties would not sustain vigorous price competition in the longer term. Accordingly, and despite evidence that it would lead to an increase in concentration, the ACCC concluded that the proposed merger would not result in a substantial lessening of competition in the retail mobile telecommunications market. In May 2009 the ACCC announced that it would not oppose the proposed merger of Vodafone's and Hutchison's Australian mobile operations.

In 2008–09, high levels of investment in the Australian telecommunications sector continued, with new developments announced and undertaken in 3G networks, backhaul transmission, and fixed broadband services via ongoing investment in unbundled lines, digital subscriber line access multiplexers (DSLAMs) and new DSLAM sites.

Although remaining at 2007–08 levels, the investment 'plateau' that the industry has reached is more than twice the level of capital expenditure in 2005–06—up from \$5.2 billion to \$10.8 billion.

Telstra undertook upgrades to its 3G theoretical peak uplink and downlink network speeds—to 5.8 Mbps and 21 Mbps respectively. Optus expanded its national network coverage by 200 000 km² and announced plans to build an additional 60 new tower sites in Tasmania, in a bid to challenge Telstra's 3G dominance in that state.

In 2009, the following investments occurred in transmission infrastructure:

- Telstra completed a redundancy fibre link from Adelaide to Perth via Darwin.
- The Basslink fibre cable between Tasmania and the mainland went live, offering a non-Telstra link for the first time.
- Pipe Networks activated its 2.56 terabits per second (Tbps) cable to Guam and the Pacific Rim.⁶
- Nextgen was awarded the first tender to build 6000 kilometres of network backhaul under the Australian Government's Regional Backbone Blackspots Program.

⁶ Pipe Networks, 'Pipe International and Tyco Telecommunications complete PPC-1 undersea cable system', media release, 8 October 2009.

Several carriers, including Nextep, iiNet, Internode and Primus, have stated that they anticipated that the roll-out of regional backhaul infrastructure would open up opportunities to deploy more DSLAMs in blackspot areas. Internode also announced plans to expand the reach of its DSL network.

On the other hand, Optus, the largest procurer of unbundled lines for the provision of broadband services, signalled in its 2007–08 annual report that it would conclude its DSLAM footprint build in 2008–09 after entering its 366th exchange.

Looking ahead, the ACCC does not expect to see the overall footprint in which access seekers operate DSL networks to expand significantly, although additional DSLAMs will likely be installed within the existing footprint. This is primarily because of technical limitations of the copper network to support DSL services on long access lines—which are more common in areas not currently within the footprint—and costs to access seekers of installing and operating DSL networks in those areas.

Innovation in service provision is also continuing, with a growing number of broadband service providers competing on the choice of additional products made available to customers—including naked DSL (24 per cent), VoIP (59 per cent), email content filtering (70 per cent), digital television (6 per cent) and internet protocol television (IPTV) (3 per cent).⁷

In November 2009, Optus announced its plan to spend \$25 million on upgrading its HFC network to data over cable service interface specification 3 (DOCSIS 3) to support speeds of up to 100 Mbps. Additionally OptiComm, TransACT and Telstra (as part of its Velocity network) are all rolling out fibre-to-the-premises (FTTP) in greenfield estates, increasing the number of fibre services being provided.

2.1.3 National Broadband Network

In April 2009, the Australian telecommunications sector entered a period of transition when the government announced the establishment of a new company to build and operate an NBN.

A new wholesale-only open and equivalent access network is to be built and operated by NBN Co, a company established by the Australian Government, in partnership with the private sector. It is proposed that NBN Co will provide broadband services with theoretical peak network speeds of up to 100 Mbps to 90 per cent of Australian homes, schools and workplaces, and broadband services with theoretical peak network speeds of up to 12 Mbps to the remaining premises in more remote areas in the country.

The increased data rates available on the proposed NBN are likely to drive the take-up of higher bandwidth services and further encourage the introduction of more applications and more varied applications for Australian consumers.

The government also initiated a consultative process on the legislative changes necessary to govern NBN Co's activities and to reform the existing regulatory regime to improve competition in the sector in the period prior to the NBN being fully operational.

In August 2009, the formation of NBN Tasmania Limited, a wholly-owned subsidiary of NBN Co, was announced, with Tasmania chosen as the location of the first stage of the roll-out of the NBN. NBN

⁷ Australian Bureau of Statistics (ABS), Internet Activity Survey—December 2009 (8153.0), table 1 'Proportion of responding ISPs offering other services, for ISPs with more than 1,000 active subscribers'.

Tasmania Limited will roll out and operate the NBN in Tasmania.⁸ In October 2009, the Australian Government announced seven new locations in Tasmania to receive FTTP. It is forecast that the NBN will start providing some homes in Tasmania with high-speed broadband in July 2010.⁹

As part of the NBN program, the Australian Government has committed up to \$250 million for priority roll-out of regional optical fibre transmission links to address backbone blackspots in regional Australia.¹⁰ In December 2009, it was announced that Nextgen will be building 6000 km of regional fibre broadband backbone links, providing more than 100 access points based around six priority blackspot locations.¹¹

2.2 The current regulatory regime

As long as there remains a need to use bottleneck infrastructure to supply telecommunications products and services to consumers, regulated access will remain critical to enhancing and maintaining competition in telecommunications markets. This will remain the case for the duration of the current regulatory arrangements as well as under a new regulatory regime in an NBN world.

Under either circumstance, effective regulatory mechanisms are required to ensure investor certainty and timely, efficient access to regulated services.

The current regime was designed to encourage commercial negotiation, with a fall back to bilateral arbitration only if parties are unable to agree. However, since 1997 the ACCC has had more than 150 access disputes notified to it in relation to telecommunications services.

This compares to the low incidence of disputes in other regulated industries—for example, two disputes have been notified under Part IIIA of the TPA and two under the national gas law. In these other regulated industries, such as energy and airports, the regulatory regime is *ex ante*, where the natural monopoly facility is separated from the contestable market elements, and revenue or price is set by the regulator.

As at 30 June 2009, the ACCC was arbitrating 38 active telecommunications service disputes, having been notified of 12 of these during 2008–09 (see Table 6.2 and Table 6.3).

During 2008–09 the ACCC observed that the scope of notified disputes was increasing. In addition to monthly access charges, issues in dispute had broadened to encompass managed network migration terms, service qualification charges and an increasing number of non-price terms.

Under Division 5 of Part XIC of the TPA, the telecommunications regime provides a mechanism for setting multilateral up-front terms of access by means of an access undertaking, voluntarily submitted by an access provider, setting out the pricing and non-pricing terms subject to which access to its infrastructure will be provided.

⁸ Senator the Hon Stephen Conroy, 'Stage 1 of the National Broadband Network rollout in Tasmania begins', media release, 16 July 2009.

⁹ NBN Tasmania Limited, 'NBN Tasmania ramping up activity to deliver high-speed broadband to Tasmanian homes by July, 2010', media release, 10 February 2010.

¹⁰ Senator the Hon Stephen Conroy, 'Priority National Broadband Network investment for regional Australia', media release, 1 July 2009.

¹¹ Senator the Hon Stephen Conroy, '6,000km regional broadband backbone for National Broadband Network', media release, 4 December 2008.

Of more than 30 undertakings submitted, only five have been accepted by the ACCC. To date, whenever an ACCC decision to reject an access undertaking has been appealed to the ACT, the decision has been subsequently affirmed.

There have also been an unprecedented number of challenges to the ACCC's regulatory approach more broadly.

These include challenges to:

- 14 of its arbitration determinations, all relating to terms of access to the ULLS or LSS
- three of its access exemption decisions and 36 separate freedom of information applications on its assessment of the FANOC (G9) fibre-to-the-node (FTTN) special access undertaking (SAU).
- access requirements for multi-dwelling units.

The ACCC takes the view that many of the government's proposed reforms to the current regulatory regime—specifically those contained in the Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Bill 2009—will, if passed, provide for a more streamlined approach to regulation and allow for the setting of multilateral price and non-price terms up front. This should reduce costs and provide greater certainty and more timely access for parties.

2.3 Investment

This section summarises a number of major infrastructure investments made in 2008–09, including upgrades and extensions undertaken, completed or announced with respect to existing networks, and the roll-out of the NBN.

Table 2.1 Selection of infrastructure investments undertaken, completed or announced in 2008–09 by carriers and CSPs

Wireless	DSL	HFC and fibre	Submarine cable
<p>Telstra—claimed coverage reaching 99 per cent of Australian population. Planned additional 270 Next G base stations by end of mid-2010.</p> <p>Optus—plans to increase 3G coverage to 98 per cent of Australian population by end of March 2010.</p> <p>Adam Internet—launched first phase of worldwide interoperability for microwave access (WiMax) network covering ADSL blackspots in Adelaide with four base stations in November 2009, with entire network expected to be completed by end of 2010.</p> <p>Vividwireless—in September 2009 announced plans to launch Australia's first 4G wireless broadband network in early 2010. Network was rolled out in Perth in March 2010.</p>	<p>Telstra—claimed ADSL2+ coverage reaching 88 per cent of Tasmanian population, and ADSL coverage in Tasmania reaching 92 per cent of population.</p> <p>TSN Internet—began DSLAM roll-out in Sydney and Melbourne in January 2010, expected to be completed in mid-2011.</p> <p>Internode—launched single-pair high-speed digital subscriber line (SHDSL) with downstream speeds of 5–40 Mbps in Adelaide CBD in March 2009. Launched in Sydney and Melbourne in August 2009, and plans to deploy in other capital cities. Announced DSLAM installation in 10 new Tasmanian exchanges, offering naked DSL and roll-outs in 57 new ESAs, and service expansions at a further 115 ESAs.</p> <p>iiNet—installed DSLAMs in at least 8 regional ESAs.</p>	<p>Telstra—completed a redundancy fibre link from Adelaide to Perth via Darwin. Plans to upgrade Velocity FTTH technology installed in new housing developments to theoretical peak network speeds of 100 Mbps. Claimed coverage of 3100 homes. Completed upgrade of HFC network in Melbourne to DOCSIS 3.</p> <p>Internode—plans for new FTTH operation which will offer speeds of 25, 50, and 100 Mbps in greenfield estate near Brisbane. Announced joint venture with Opticomm to provide FTTH broadband with speeds between 25 and 100 Mbps to Urban Pacific's Fernbrooke estate in Brisbane.</p> <p>TransACT—unveiled new dedicated FTTP gateway site in Australian Capital Territory, promising speeds of 100 Mbps downstream and 20 Mbps upstream.</p> <p>NBN (Australian Government)—in October 2009, announced 7 new locations in Tasmania to receive FTTP. Has also committed up to \$250 million for priority roll-out of regional optical fibre transmission links to address backbone blackspots in regional Australia.</p> <p>Optus—announced plans to upgrade its HFC network in Sydney, Melbourne and Brisbane to DOCSIS 3.</p>	<p>Basslink—the Basslink fibre cable between Tasmania and the mainland went live in July 2009, providing the first non-Telstra fibre link from Tasmania to the mainland.</p> <p>Pipe Networks—activated its 2.56 Tbps cable to Guam and the Pacific Rim.</p> <p>Kordia—in October 2009, announced its intention to build a new Australia – New Zealand submarine cable in 2010.</p>

2.4 Voice and internet services

Sections 2.4–2.8 focus on competition developments in voice and internet services in 2008–09. Each section discusses infrastructure developments, service take-up, market concentration and price trends.

Infrastructure developments

As stated in section 2.3, there continues to be investment in infrastructure across the telecommunications industry. During 2008–09, mobile service providers continued to invest in their 3G networks and backhaul transmission, increasing coverage areas and network speeds.

The period also saw the continued roll-out of access seeker DSLAMs in Telstra exchanges, increasing consumer options for ADSL2+. Additionally the Basslink fibre cable went live, providing expanded backhaul from Tasmania to the Australian mainland.

In contrast to other areas, there has been no major new infrastructure development for fixed voice services in 2008–09.

Service take-up

In 2008–09 there was a slight drop (3 per cent) in fixed voice SIOs from the previous year, while mobile services increased 9.6 per cent in the same period. Overall the total number of voice services grew by approximately 1.8 million in 2008–09.

While there are no authoritative statistics on the take-up of VoIP services, there appears to be increasing use of the services among both consumers and businesses.

The number of households with internet access increased again in 2008–09, with more users choosing non-dial-up internet access than previously. Households are also moving to faster connections. While DSL remains the dominant broadband access technology, its share of users declined in 2008–09. The major cause of this decline appears to be the rise of mobile broadband.

Concentration

When looking at competition in a market, analysts and regulators look at structural features such as the number of sellers, their market shares, the service concentration levels and the barriers to entry and exit (such as the high sunk costs traditionally associated with communications services). The discussion in this section is only focused on market concentration and so should not be taken to be a comprehensive analysis of all the market characteristics of the communications markets. As the ACCC has noted before, many aspects of communications service segments are converging, and distinct boundaries are becoming difficult to identify.

Changes in concentration levels over time can reveal the frequency of new entry and provide insight into the ability of new entrants and smaller competitors to attract custom and expand. The Herfindahl-Hirschman Index (HHI) is a metric used to estimate the level of concentration of markets, as well as changes in the concentration of markets as a result of a merger. For an explanation of how the HHI

score is calculated and a comparison of the 2007–08 and 2008–09 HHI scores for each sector of the telecommunications industry in Australia, refer to appendix C.

Price trends

Price trends are an important indicator of the effectiveness of functioning competitive markets. The ACCC's Division 12 report, *Changes in the prices paid for telecommunications services in Australia 2008–09*, contained within this volume, provides further information on the changes in prices paid by consumers for telecommunications services during the period.

In 2008–09 the average real price for telecommunications services¹² declined by 6.1 per cent from the previous reporting period, after a decrease of 5.5 per cent in 2007–08. The prices for fixed voice services fell by 2.6 per cent, and mobile voice service charges fell by 7.8 per cent.

2.5 Fixed voice services

'Fixed voice services' generally refers to voice services provided over a dedicated access line on a fixed network, plus the provision of one or more of the following calling functions:

- local calls
- national long-distance calls
- international calls
- fixed-to-mobile (FTM) calls.

2.5.1 Fixed voice services: infrastructure developments

In December 2007, the ACCC made the Infrastructure RKR requiring 22 specified carriers to report annually on the locations of their core network and CAN infrastructure as of 31 January of each year. A comparison of carriers' Infrastructure RKR reporting for January 2009 and 2010 shows Telstra to have completed a number of large and small redundancy rings by connecting neighbouring networks in regional areas in mainland states and the Northern Territory. Also in 2009, Telstra linked some remote communities to its fixed-line services with the addition of extending spurs to its existing network.

Otherwise the comparison of 2009 and 2010 Infrastructure RKR returns shows that both Telstra and other carriers have added a number of spurs to their existing access networks in metropolitan areas, as well as several redundancy rings. However, there is little evidence of carriers—other than Telstra—extending their networks into regional areas.

These investments in transmission infrastructure will support fixed voice services as well as provide backhaul for mobile and data services.

In greenfield developments, copper infrastructure continues to be laid to provide fixed infrastructure to new homes. As part of the NBN roll-out, the government began a consultation process regarding FTTP

¹² Telecommunications services are defined as PSTN (fixed-line voice) services, mobile services and internet services.

in greenfield estates in May 2009. Subsequently, the government introduced legislation requiring FTTP in greenfield estates.

2.5.2 Fixed voice services: take-up and usage

Table 2.2 shows the take-up of fixed voice services and mobile services since 2001–02.

Fixed voice SIOs continued to trend lower, declining by 3 per cent in 2008–09. A similar rate of decline (3.5 per cent) was observed in 2006–07.

Table 2.2 Number of fixed and mobile telephone services in operation (millions), 2001–02 to 2008–09

Year	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09
Fixed voice	11.4	11.6	11.7	11.5	11.3	10.9	11.0	10.7
Mobile	12.7	14.3	16.5	18.4	19.8	21.3	22.1	24.2

Source: Australian Communications and Media Authority (ACMA) 2007–08 communications reports.

Table 2.3 presents the total number of PSTN voice services and ULLS being supplied over Telstra’s copper CAN—based on Telstra public information.¹³

This shows that while the number of fixed voice SIOs provided over the Telstra copper CAN decreased over the four years to June 2009, this occurred more gradually—culminating in a total decline of 3 per cent for the full four years—than the decline for fixed voice services supplied over all networks.

Table 2.3 Telstra retail and wholesale PSTN services and ULLS provided over the Telstra copper CAN

Retail/wholesale percentages	2005–06	2006–07	2007–08	2008–09
Telstra total retail SIOs	77%	78%	79%	80%
Telstra domestic wholesale SIOs	21%	20%	15%	13%
ULLS SIOs	1%	2%	5%	7%
Total number of lines on Telstra CAN (millions)	10.06	10.00	9.90	9.72

Source: Telstra financial reports.

Possible explanations for the decline in fixed voice services include a growth in naked DSL and VoIP subscriptions, and possibly in the number of ‘mobile-only’ households. These contentions are considered in section 2.9.

Another explanation for the decline in fixed voice connections may simply be that, as broadband has become more available, customers have handed back second lines previously used for dedicated fax, dial-up or other data services.

¹³ Note that the ACMA and Telstra totals differ as the ACMA total includes fixed voice SIOs provided over the CAN as well as by other means, including the HFC network.

2.5.3 Fixed voice services: concentration

In 2008–09, the number of providers of fixed voice services increased from 372 to 391,¹⁴ with 56 per cent of all internet service providers (ISPs) offering service bundles including fixed voice services.¹⁵ Nevertheless, Telstra and (to a lesser extent) Optus retain the most significant service shares in the fixed voice telephony market.

As the disaggregation of services in table 2.3 shows, Telstra dominates the provision of fixed voice services over its copper access network. In 2008–09, 80 per cent of all end-users supplied with fixed voice services over this network were Telstra retail customers.

The take-up of ULLS lines grew by 33 per cent over 2008–09—reaching 691 997 lines by the end of 2008–09—as access seekers have increasingly invested in the supply of fixed voice connections via this alternative network infrastructure.¹⁶ At the same time, there has been a corresponding decline in the number of wholesale fixed voice (resale) services supplied over the Telstra CAN.

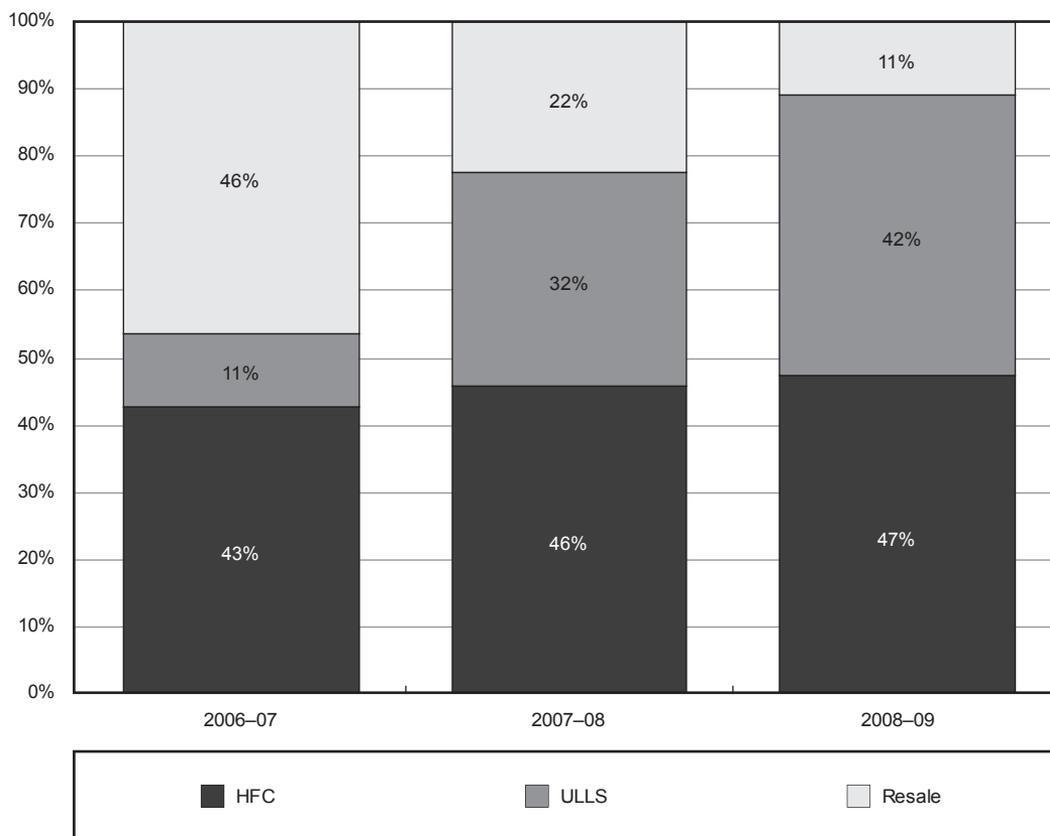
As an example, Figure 2.1 shows how Optus’s investment in ULLS has reduced its reliance on resale for the supply of fixed voice services to its consumer and small and medium business customers. Optus is also continuing to use its HFC network to provide fixed voice services.

14 ACMA, *Communications report 2007–08*, p. 10; ACMA, *Communications report 2008–09*, p. 21.

15 ACMA, *Communications report 2008–09*, p. 14.

16 Telstra CAN RKR for June 2009 quarter.

Figure 2.1 Migration of Optus's fixed voice services customers to alternative network infrastructure, financial years 2007–09*



Source: Optus historical financial summaries, 31 December 2009.

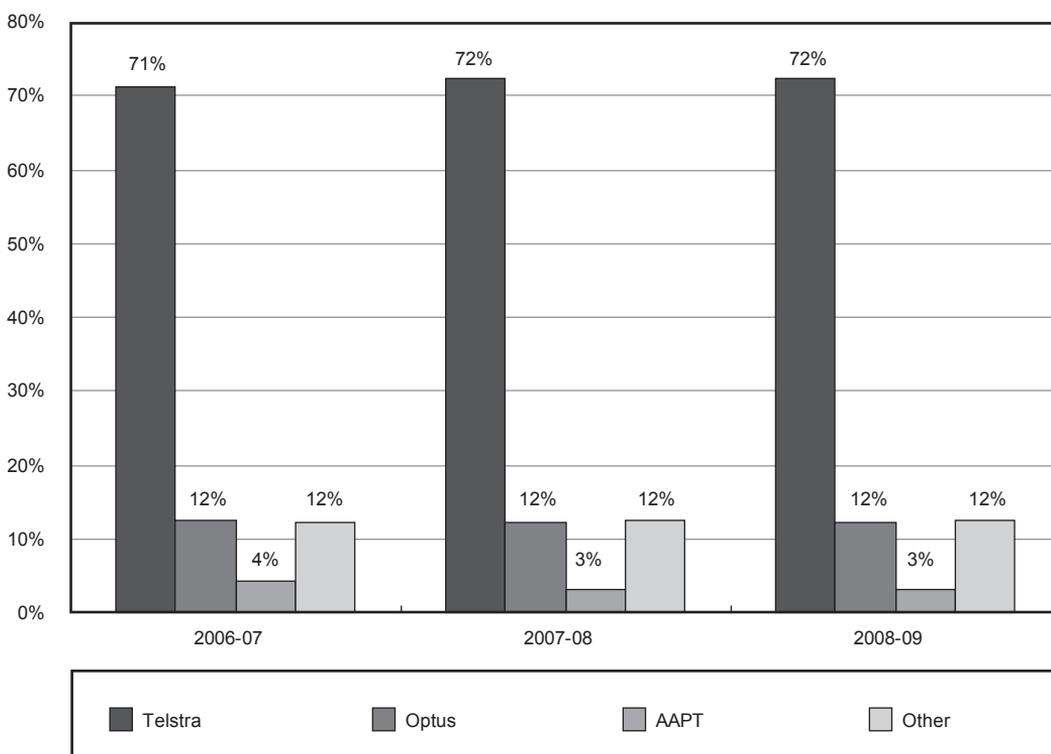
Note: *Consumer and small and medium business customers only.

Despite access seeker investment of this kind, as of 30 June 2009 alternative network infrastructure only provided services to 1.58 million of Australia's 10.67 million fixed voice subscribers. The remaining 85 per cent of subscribers were either direct Telstra retail customers or were being supplied with Telstra wholesale services via resale.

Consequently, due to the relative size and coverage of the Telstra's copper line network and those of the alternative networks available, Telstra's domination of the supply of retail voice services on its CAN, as shown in table 2.3, has ensured that it is the retail service provider for the overwhelming majority of all fixed voice subscribers across all network infrastructure.

Thus, as shown in Figure 2.2, Telstra maintained a market share in excess of 70 per cent for the three years to 30 June 2009, while its nearest rival in the fixed voice service sector, Optus, established a market share of less than 13 per cent.

Figure 2.2 Fixed voice service shares by subscriber numbers, 2006–07 to 2008–09



Sources: Division 12 RKR; ACMA, Communications report 2008–09.

The concentration of the fixed voice sector increased from a score of 5441 in 2007–08 to 5559 in 2008–09 (as measured by the HHI index, discussed in appendix C). This suggests that the competition benefits of the ULLS-based model, as a deeper level of entry into the fixed services network, have yet to be fully realised in retail markets.

While Telstra’s PSTN revenue declines have attracted more attention, since 2006–07 Optus’s and AAPT’s fixed voice revenues have declined at a faster rate. Despite Telstra’s PSTN revenue declining over this period, its costs also declined and its fixed line business remains highly profitable.¹⁷

As outlined in section 2.8.1, the take-up of ULLS continues to be heavily concentrated in metropolitan areas. Where ULLS take-up has been observed, there are a number of potential barriers to entry which may limit the ability of access seekers to profitably take up and provide fixed voice services via unbundled lines. Some examples of potential barriers to ULLS entry are exchange capping, exchange queuing, and difficulties associated with LSS-to-ULLS migration.

¹⁷ Telstra, transcript from full year 2009 financial results—analyst briefing, August 2009, http://www.telstra.com.au/abouttelstra/investor/docs/tls687_transcript_of_presentation.pdf, accessed April 2010.

Exchange capping occurs where Telstra claims that an exchange has reached full capacity and refuses access seeker requests for access to install additional equipment for the provision of services via ULLS, including fixed voice and broadband services.¹⁸

Where exchanges are open to additional equipment, access seekers' market entry has been frustrated by excessive delays in queuing for exchange access.

Access seekers that already have LSS equipment installed in exchanges for the provision of broadband services also face barriers to ULLS entry. These service providers experience delays and incur additional expense and other complications when attempting to transfer connections to ULLS lines, in the absence of a robust migration process.¹⁹

2.5.4 Fixed voice services: price trends

For only the second time since 1997–98, price reductions for fixed voice services for residential customers exceeded those for business consumers. This previously occurred in 2007–08.

The residential segment experienced a 3.1 per cent decline in average real prices paid for PSTN services, compared to a decline of only 1.7 per cent for business consumers. In 2007–08, the decreases in service charges in these segments were 6.4 per cent and 4 per cent respectively.²⁰

It is likely that this further decline in residential prices has been driven by the introduction of 'bucket' subscription plans in 2008–09 and the additional discounts provided to residential customers in service bundles.

Despite this recent trend in favour of residential customers, business users have typically received the larger share of fixed voice service pricing discounts over the past decade. Since 1997–98, average real prices for business fixed voice services have declined 42.9 per cent, compared to a 28.5 per cent decrease in residential service pricing.²¹

Overall in 2008–09 the most significant fixed voice service price declines occurred in fixed-to-mobile (FTM) and national long-distance call services—with average real rates falling 6.8 per cent and 6.7 per cent respectively. In 2007–08, FTM call prices declined 6.4 per cent and national long-distance calls declined 10.9 per cent in real terms.²² Over a longer period, FTM pricing has reduced at a much lower rate than any other call type in a period when FTM costs have been drastically cut, in the main as a result of intervention by the ACCC.²³

Also in 2008–09, average real prices paid for international calls dropped 3.9 per cent, after a fall of 7.7 per cent in 2007–08. Local call rates declined 2.5 per cent, after a reduction of 10.1 per cent in 2007–08.²⁴

18 *ibid.*, pp. 40–41. Exchange capping is also referred to as rack-capping or main distribution frame (MDF) capping.

19 *ibid.*

20 ACCC, *Changes in the prices paid for telecommunications services in Australia 2008–09*, table 1.1, in this volume.

21 *ibid.*

22 *ibid.*

23 *ibid.*, table 4.1.

24 *ibid.*

Having declined by 1.6 per cent in 2007–08, in 2008–09 the charge for basic access services increased by 1.1 per cent in real terms.²⁵

For further detailed analysis of the prices paid for fixed voice services, refer to chapter 4 of *Changes in the prices paid for telecommunications services in Australia 2008–09*, in this volume.

2.6 Mobile services

‘Mobile voice service’ refers to a voice service based on radiofrequency technology operating on a cellular basis. A mobile voice service differs from a fixed voice service as it allows the end-user to move between cells while operating their voice service.

2.6.1 Mobile voice services: infrastructure developments

During 2008–09 investment in mobile networks continued, with a number of developments announced and undertaken in 3G networks and backhaul transmission. These included:

- Upgrades to Telstra’s Next G network to achieve theoretical peak network uplink speeds of 5.8 Mbps and downlink network speeds of 21 Mbps.²⁶
- Optus’s plans to build more than 60 new mobile tower sites in Tasmania as part of its 3G network expansion, in a bid to challenge Telstra’s 3G dominance in Tasmania.²⁷
- Optus’s continuing expansion of its 3G network to add 200 000 km² of coverage. Having achieved 96 per cent coverage, Optus has earmarked \$315 million for the expansion its network to reach 98 per cent of the population.²⁸

2.6.2 Mobile voice services: take-up and usage

As table 2.2 shows, in 2008–09 mobile SIOs continued to increase, growing 9.6 per cent over the year. This is the largest annual increase in mobile SIOs since 2004–05, when the subscriber base grew by 15.4 per cent, and only the second time since 2004–05 that more than 2 million subscribers were added in a single year.

This follows the smallest annual increase of mobile SIOs in 2007–08, when total subscribers grew by only 3.8 per cent.²⁹

25 *ibid.*, pp. 19–23.

26 Telstra, CEO presentation, Citigroup EMT Conference, Phoenix, Arizona, 9 January 2009, http://www.telstra.com.au/abouttelstra/investor/docs/tls657_transcriptcitigroupconference.pdf, accessed 25 March 2010.

27 L Coleman, ‘Tasmania in focus for Optus 3G expansion’, *Communications Day*, 10 November 2009.

28 L Coleman, ‘Optus 3G network to grow by 200,000sq/km’, *Communications Day*, 12 March 2009.

29 ACMA, *Communications report 2008–09*, p. 28.

2.6.3 Mobile voice services: concentration

During the greater part of 2008–09, there were four major carriers providing services to Australian mobile users: Telstra, Optus, Vodafone and Hutchison. The number of mobile network operators was subsequently reduced to three after the merger of the Australian mobile operations of Vodafone and Hutchison in mid-2009.³⁰

As in the previous two years, in 2008–09 Telstra maintained the largest share of mobile users in the market, with 42 per cent of the total subscriber base and over 10 million mobile users. More than 60 per cent of its mobile subscribers in 2008–09 accessed its networks via 3G handsets, up from just over 45 per cent in 2007–08.³¹

Optus's share of subscribers continued within close range of 30 per cent of the market in 2008–09, reaching a total number of 7 million (including users subscribed to its subsidiary Virgin Mobile).³² In 2008–09 just over 35 per cent of Optus and Virgin customers were subscribed to 3G services, up from 25 per cent in 2007–08.³³

In 2008–09 Vodafone held its position as the third-largest provider of mobile services, with just under 4 million subscribers and a market share of 16 per cent.³⁴ Almost 30 per cent of Vodafone's customers in 2008–09 were subscribed to its 3G services, up from just under 20 per cent in 2007–08.³⁵

In 2008–09 Hutchison had the smallest subscriber base of all the major mobile carriers. In that year, Hutchison held a 9 per cent share in the total subscriber base, with just over 2 million subscribers, all of them 3G mobile subscribers.³⁶

30 Hutchison 3G Australia Pty Limited, Australian Securities Exchange company announcement, 10 June 2009. Media release, ACCC, 'ACCC not to oppose proposed merger of Vodafone and Hutchison', 29 May 2009.

31 Telstra, Division 12 RKR data for 2008–09.

32 Optus, Division 12 RKR data for 2008–09.

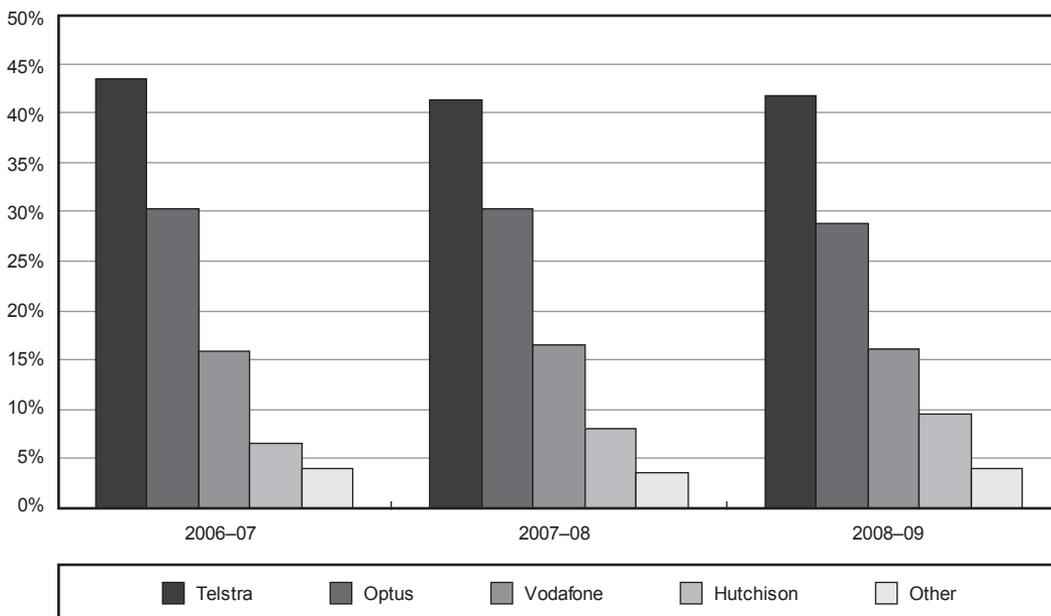
33 *ibid.*

34 Vodafone, Division 12 RKR data for 2008–09.

35 *ibid.*

36 Hutchison, Division 12 RKR data for 2008–09.

Figure 2.3 Mobile voice services share by subscriber numbers, 2006–09³⁷



Sources: Division 12 RKR, carrier-provided wholesale SIOs (VHA and Telstra); SingTel quarterly reports.

While Hutchison was again the smallest mobile services provider in 2008–09 by subscriber numbers, as is evident from Figure 2.3, it has continually built its market share over the three years to 30 June 2009, suggesting a successful competitive strategy.

In fact, the ACCC assessment of the proposed merger between Vodafone and Hutchison found that during its time in competition with the three larger mobile carriers, Hutchison had played a key role in the market for retail mobile services.

Evidence presented to the ACCC showed that Hutchison often led pricing initiatives in the sector, regularly eliciting a competitive response from the three larger carriers.³⁸ Hutchison was also identified as often being the first provider to offer consumers innovative products and services—including capped plans and prepaid mobile broadband.³⁹

Nevertheless, while recognising that the proposed merger of Hutchison and Vodafone would increase concentration in the already highly concentrated mobile service market,⁴⁰ the ACCC decided not to oppose the merger. In part, this was in recognition of the fundamental changes to the sector’s competitive dynamics, brought about by the rise of mobile data and mobile broadband services.

37 ‘Other’ refers to mobile virtual network operators (MVNOs) that are not independent service providers. There were only four (now three) mobile services providers in Australia.

38 Vodafone Group plc and Hutchison 3G Australia Pty Limited—proposed merger of Australian mobile operations, Public Competition Assessment, 24 June 2009, para 61.

39 *ibid.*, para 62.

40 *ibid.*, para 74.

In its public competition assessment, the ACCC took the view that the increasing popularity of these new services had the following impacts on market conditions in the mobile services sector:

- wireless broadband and related data services had become the main source of revenue growth as mobile voice revenues continued to taper off
- carriers were required to develop strong capacities in both voice and data markets to maintain competitive economies of scale
- a competitive presence in both market segments was also essential as further convergence between voice and data services was likely—as was the increased bundling of wireless broadband and 3G voice and data services.⁴¹

The increasing importance of mobile data to mobile services revenue is apparent from the sector's 2008–09 results.⁴² In that year, mobile data was responsible for 33 per cent of Telstra's revenue in the sector, compared with 28.7 per cent in the previous reporting period.⁴³ Data contributed 35 per cent to Optus's mobile services revenue in 2008–09, up from 31 per cent in 2007–08.⁴⁴ In the first half of 2009, 34 per cent of Hutchison's revenue was derived from its mobile data services, up from 26.7 and 31.2 per cent in the 2007 and 2008 calendar years.⁴⁵

In anticipation of mobile data services increasing exponentially,⁴⁶ the ACCC took the view that neither Hutchison nor Vodafone would have sufficient resources, based on their existing platforms, to satisfactorily expand their network capacity, inevitably leading to severe declines in their service standards and coverage. Ultimately, it was predicted that a fracturing of the market could potentially occur as a 'quality gap' opened up between the mobile voice and data services of Hutchison and Vodafone and those of their larger integrated competitors.⁴⁷

However, mobile data also has the potential to influence the competitive dynamics in and ultimately the concentration of the mobile services market in a pro-competitive way.

2.6.4 Mobile voice services: price trends

In 2008–09, average real prices paid for mobile services declined overall by 7.8 per cent, compared to a decrease in 2007–08 of 5.4 per cent.⁴⁸

Average real prices for post-paid and prepaid GSM and 3G services also declined in real terms. Overall, in 2008–09 GSM rates fell in real terms by 10.8 per cent, after a drop of 6.3 per cent in 2007–08.

41 *ibid.*, para 80.

42 Information for mobile data revenue was not available from Vodafone because it does not report this information for Australia.

43 Telstra, *Annual report 2008-09*, p. 16.

44 Singapore Telecommunications Limited and subsidiary companies, *Management discussion and analysis of financial condition, results of operations and cash flows for the first quarter ended 30 June 2009*, p. 40.

45 Hutchison, half-year results presentation, 11 August 2009, p. 7; Hutchison, *Annual report 2007*, p. 14; Hutchison, *Annual report 2008*, p. 10.

46 The published decision refers to Australian industry estimates that mobile data would lead to a 400 per cent increase in network traffic by 2011–12. Vodafone Group plc and Hutchison 3G Australia Pty Limited—proposed merger of Australian mobile operations, Public Competition Assessment, 24 June 2009, para 40.

47 *ibid.*, paras 65, 66, 73 and 81.

48 ACCC, *Changes in the prices paid for telecommunications services in Australia 2008–09*, table 1.1, in this volume.

Average real prices for post-paid GSM services declined in 2008–09 by 7.4 per cent, while prices for prepaid services fell by 14.3 per cent. In 2007–08, prepaid and post-paid pricing decreased by 9.3 per cent and 2.8 per cent respectively, in real terms.

Overall, average real prices paid for 3G services decreased by 4.2 per cent in 2008–09, compared to a decline of 3.7 per cent in 2007–08.

The average real fall in 3G prepaid service charges was 10.5 per cent in 2008–09, after a reduction of 7.3 per cent in 2007–08.⁴⁹ This indicates some aggressive price competition for this subscriber group. In contrast, the modest real decline in 3G post-paid service pricing in 2008–09 of 3.3 per cent—following a reduction of 3.5 per cent in 2007–08—suggests a more conservative trend. It may also be the case that network operators are competing in this segment by improving quality of service—such as by providing higher quality ‘smartphones’—rather than competing on price.

For further detailed analysis of the prices paid for mobile voice services, refer to chapter 5 of *Changes in the prices paid for telecommunications services in Australia 2008–09*, in this volume.

2.7 VoIP services

‘VoIP’ refers to the use of internet protocol (IP) for delivery of voice communications over data networks. The attraction of VoIP is that it has the potential to offer consumers calls at considerably cheaper call rates than those available over traditional PSTN connections, as the cost of VoIP delivery is lower than that of PSTN.

Broadly speaking, there are three main types of VoIP services available to consumers. These are:

- soft switching and ULLS (plain old telephone service (POTS) emulation)
- internet access device (IAD) and broadband access (carrier-grade VoIP)
- VoIP and broadband access (application layer VoIP).

See appendix A for further explanation of these types of VoIP services.

2.7.1 VOIP: infrastructure developments

Given that VoIP services are predominantly delivered via internet connections, refer to section 2.8.1 for a summary of VoIP infrastructure developments.

2.7.2 VOIP: take-up and usage

There are currently no authoritative statistics on the total number of VoIP users in the Australian telecommunications sector. However, indirect indications suggest that VoIP may be growing in popularity as an alternative fixed voice service.

⁴⁹ *ibid.*

Survey data collected on behalf of the ACMA found that, as of June 2009, approximately 2.5 million or 14 per cent of Australians had access to a VoIP service at home.⁵⁰

In the same month, Australian VoIP provider MyNetFone reported that it supplied services to 74 000 customers in 2008–09, a 23.3 per cent increase on its 2007–08 results.⁵¹ In December 2009, rival VoIP provider Engin reported 67 000 active SIOs for the year, a 5 per cent annual increase.⁵² International application layer VoIP service provider Skype has reported 1.01 million unique Australian subscribers for 2008–09, a 15 per cent increase on its 2007–08 total.⁵³

There is evidence that Australian businesses are also utilising VoIP services. The ACMA has referred to survey findings that, as of June 2009, 20 per cent of small and medium enterprises had accessed VoIP services. Medium-sized businesses have been prominent among the early adopters, with 30 per cent making use of this fixed voice alternative.⁵⁴

Recent data from the Australian Bureau of Statistics (ABS) also suggests that the profile and accessibility of VoIP are increasing as it is made more broadly available by Australian ISPs. The ABS found that the percentage of Australian ISPs offering VoIP services increased from 51 per cent in December 2008 to 60 per cent in June 2009.⁵⁵

The ACMA has suggested that the availability of naked DSL has been a key driver of VoIP growth in Australia.⁵⁶

In June 2009, the ABS found that 27 per cent of ISPs were offering naked DSL connections—up from 19 per cent in December 2008.⁵⁷ At the same time the ACMA noted that naked DSL services were being marketed to approximately 600 000 Australian consumers.⁵⁸

2.7.3 VoIP: concentration

There is currently insufficient data available on the size of the subscriber base for VoIP in Australia, so measures of market share and concentration levels for 2008–09 cannot be provided in this report.

However, the ACMA tracks the total number of VoIP service providers in operation in the Australian market. At the end of 2008–09 it reported that there were 387 providers, up from 268 in 2007–08.⁵⁹

50 ACMA, *Communications report 2008–09*, p. 51.

51 MyNetFone, *Annual report 2009*, p. 5.

52 Engin, *Financial report for the half year ended 31 December 2009*, p. 4.

53 ACMA, *The Australian VoIP market: The supply and take-up of VoIP in Australia*, 2008, p. 11.

54 ACMA, *Communications report 2008–09*, p. 51.

55 ABS, *Internet Activity Survey—June 2009* (8153.0), table 1 'ISPs offering other services, for ISPs with more than 1000 active subscribers'.

56 ACMA, *The Australian VoIP market: The supply and take-up of VoIP in Australia*, 2008, p. 11. Naked DSL enables ISPs to use ULLS lines to offer consumers high-speed internet and a fixed-line voice service via VoIP, without the charge for copper line rental.

57 ABS, *Internet Activity Survey—June 2009* (8153.0), table 1 'ISPs offering other services, for ISPs with more than 1000 active subscribers'.

58 ACMA, *Communications report 2008–09*, p. 28. Nevertheless, it is difficult to determine the total number of SIOs receiving naked DSL services. While naked DSL is provided over ULLS lines, ULLS can be used to offer unrelated services, including frame relay and SHDSL services. ACMA, *The Australian VoIP market: The supply and take-up of VoIP in Australia*, 2008, p. 12.

59 ACMA, *Communications report 2008–09*, p. 26; ACMA, *Communications report 2007–08*, p. 24.

2.7.4 VoIP: price trends

The ACCC's *Changes in the prices paid for telecommunications services in Australia 2008–09* does not report on VoIP pricing in Australia in 2008–09.

2.8 Internet services

There are a range of technology platforms capable of supplying the internet to Australian households.

Dial-up

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

Broadband

Broadband is a relative term; it refers to a variety of internet access speeds. However, a common feature of broadband internet, regardless of access technology, is that it offers faster theoretical peak network speeds than those offered by dial-up and can be used concurrently with a voice service.

DSL

DSL (which includes asymmetric DSL (ADSL)), like dial-up, uses the copper network to provide an internet service. DSL operates at distinctly separate and much higher frequencies than voice services, and therefore operates independently of and simultaneously with the provision of voice services over the same copper pair.

HFC

HFC 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

'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

Wireless broadband is offered over fixed and mobile wireless.

- Fixed wireless has evolved out of extensions of fixed services (such as internet). The access network is provided by means of a radio channel (air interface) using point-to-point or point-to-multipoint technology. This technology usually requires a fixed antenna at the receiving point.

- Mobile wireless has evolved from mobile phone technology. The access network is provided by means of a radio channel (air interface) using cellular topology which offers roaming from interconnected regions of service. Users can access this network either via a 3G voice handset or via non-voice service equipment such as a universal serial bus (USB) modem or datacard.

Satellite broadband

Satellite broadband utilises 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.

2.8.1 Internet: infrastructure developments

There was continued investment in DSLAMs in 2008–09, although (as shown by figures 2.4 and 2.5) the level of new investment was lower than in 2007–08.

This investment was mostly driven by additional DSLAM investments in exchange service areas that already supported at least one competing DSL network. The overall footprint of competing DSL networks remained essentially the same, with the addition of only 20 exchange service areas in 2008–09.

More recently, a number of DSL network operators have announced plans to continue investment:

- Internode announced the roll-out of equipment at 57 new telephone exchanges and expansion at a further 115 exchanges.⁶⁰
- TSN Internet is preparing for a DSLAM roll-out in Sydney and Melbourne.⁶¹
- In November 2009, iiNet installed DSLAMs in eight regional exchanges, which it states was made possible by the availability of competitive transmission from Optus. Optus's improvements are part of the government's Regional Backbone Blackspots Program.⁶²

Investment also occurred in HFC networks. In November 2009 Telstra completed an upgrade of part of its HFC network to DOCSIS 3, with speeds of up to 100 Mbps expected. Also in November 2009, Optus announced an upgrade of its HFC network to DOCSIS 3.⁶³

The Telstra CAN RKR also provides a view of access seeker investment in ULLS infrastructure in regional and remote areas during 2009. Figures 2.4 and 2.5 show continued, but slowing, access seeker investment in Band 2 metropolitan areas, with little to no investment in regional and remote areas.

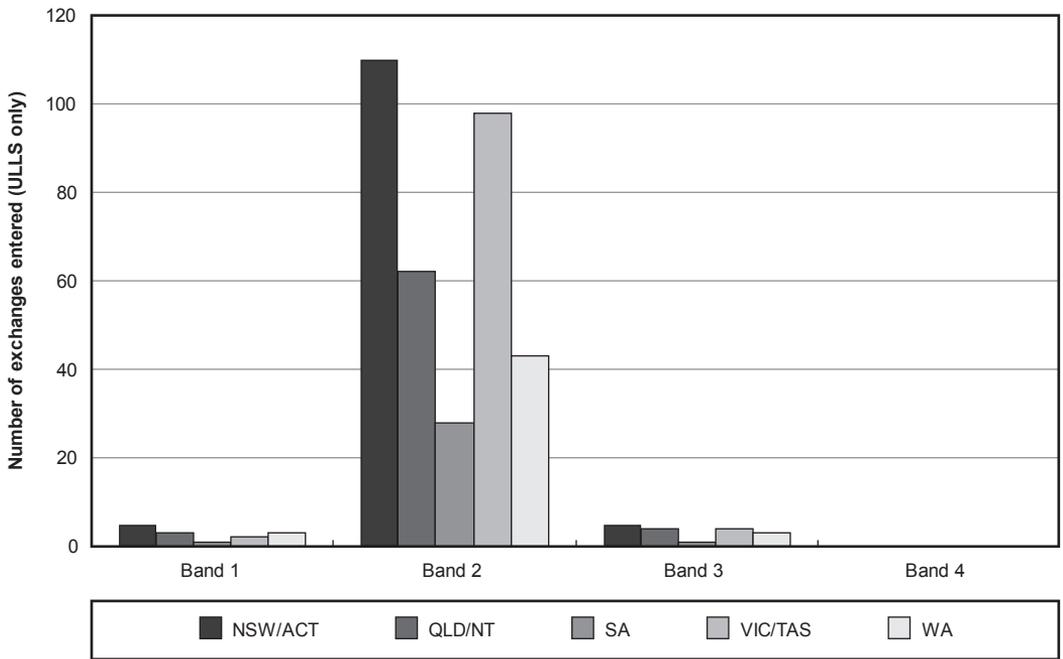
⁶⁰ L Coleman, 'Internode ramps up Tasmanian DSL', *Communications Day*, 12 August 2009.

⁶¹ L Coleman, 'Upstart carriers seek to disrupt market with unlimited downloads', *Communications Day*, 10 December 2009.

⁶² L Coleman, 'iiNet-Optus deal opens up 8 new ADSL2+ exchanges', *Communications Day*, 3 November 2009.

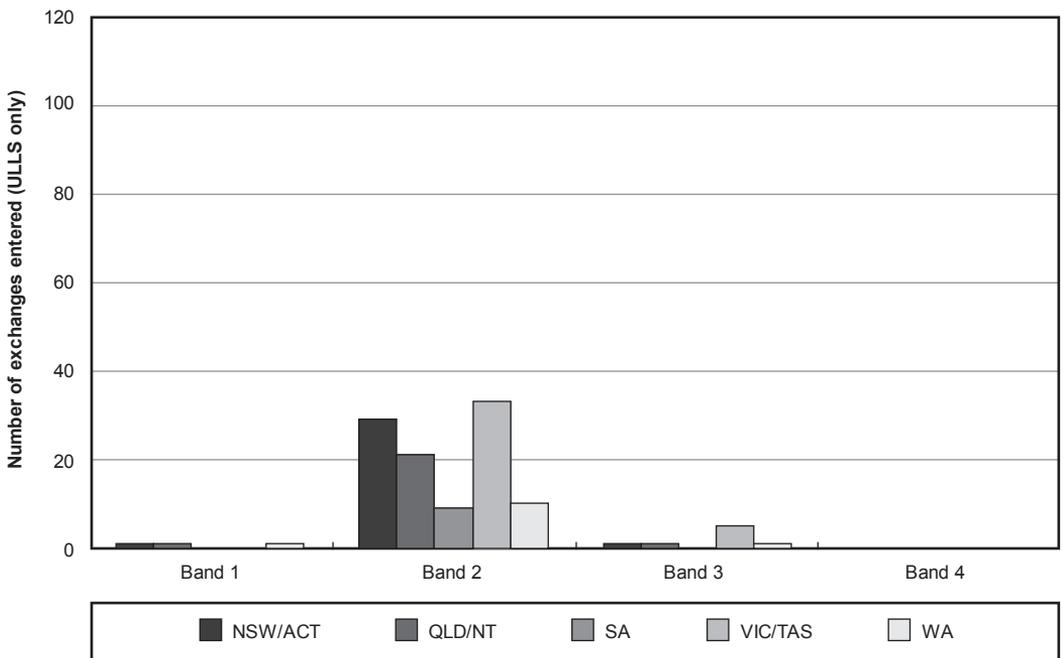
⁶³ L Coleman, 'Optus leaps over Telstra with 3-city DOCSIS 3 upgrade', *Communications Day*, 19 November 2009.

Figure 2.4 Number of exchanges entered for the provision of ULLS in 2007–08



Source: Telstra CAN RKR.

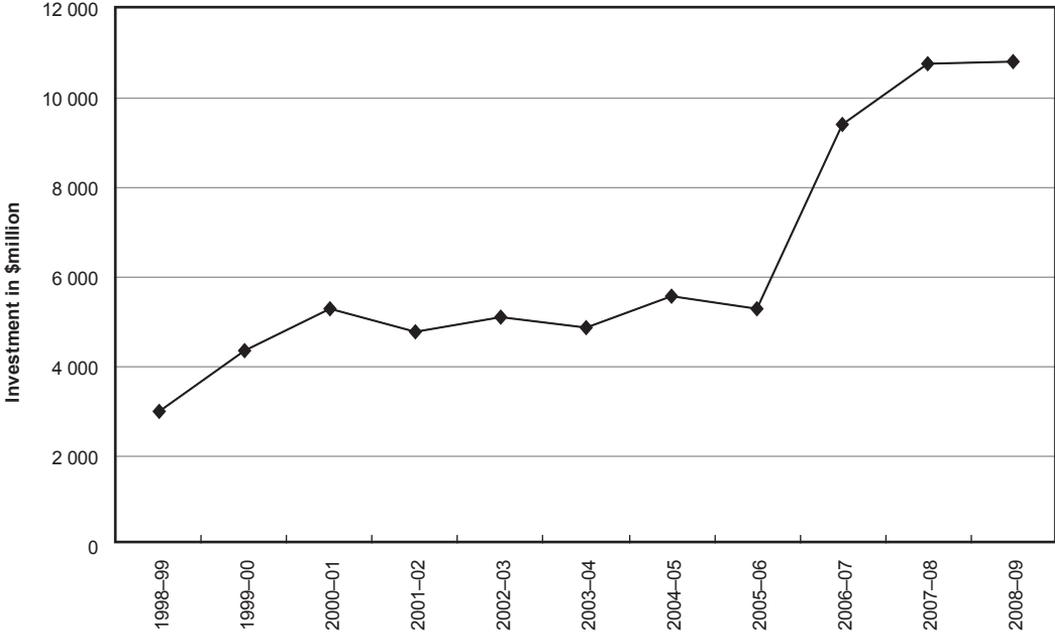
Figure 2.5 Number of exchanges entered for the provision of ULLS in 2008–09



Source: Telstra CAN RKR.

Figure 2.6 shows that industry capital expenditure has reached a plateau, with 2008–09 capital investment maintaining the historically high levels reached in 2007–08. The high levels of investment observed in recent years has been driven by intensive investment in DSL networks and 3G network upgrades and coverage expansions.

Figure 2.6 Private gross fixed capital investment in the information and telecommunications industry



Source: ABS, Australian system of national accounts (5204.0), June 2009.

In July 2009, the Basslink fibre cable went live, providing the first non-Telstra fibre link from Tasmania to the mainland. Internode now offers naked DSL in Tasmania using the competitive backhaul that the Basslink cable provides.

Pipe Networks activated its PPC-1 cable from Sydney to Guam in late 2009, and Kordia announced its intention to build a new Australia – New Zealand submarine cable in 2010.

2.8.2 Internet: take-up and usage

Households with access

Table 2.4 shows the percentage of households with internet access from June 1998 to June 2009.

Table 2.4 Percentage of households with internet access, 1998–99 to 2008–09

FY98	FY99	FY00	FY01	FY02	FY03	FY05	FY06	FY07	FY08	FY09
15%	21%	32%	42%	46%	53%	56%	60%	64%	67%	72%

Source: ABS, Household use of information technology, Australia reports (8146.0).⁶⁴

Table 2.4 shows that internet access at home has become increasingly important for Australians in the past decade, to the point where it is now subscribed to by the majority of households. There has been consistent growth of between 3 and 5 per cent in the number of households with internet access since 2003, following the rapid gains of 1998–2003.

The prevalence of the internet in households across Australia can be expected to increase further if internet-based services such as video on demand (VoD) and IPTV gain widespread consumer acceptance.

Choice of access platform

Figure 2.7 summarises the ABS internet activity surveys from March 2007 onwards, showing the proportion of subscribers using dial-up and non-dial-up technologies during this period. The ABS includes among the non-dial-up broadband technologies DSL, fixed wireless, mobile wireless, satellite, cable and fibre, and integrated services digital network (ISDN) connections.

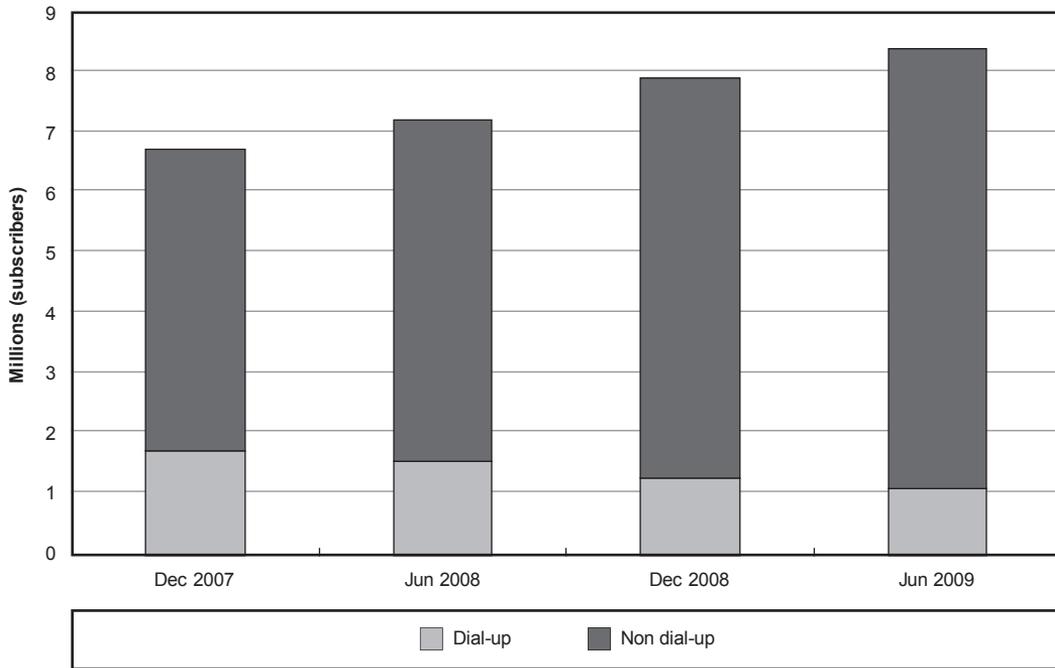
Figure 2.7 demonstrates that there has been a steady decline in the number of dial-up subscribers as a proportion of total subscribers. Dial-up subscriptions declined by almost one million subscribers between March 2007 and June 2009—from approximately one-third to one-eighth of all internet users.⁶⁵ Over the same period, broadband subscriptions increased by approximately three million. By June 2009, seven out of every eight online subscribers in Australia were accessing the internet via broadband services.

Even allowing for as many as one-third of new broadband subscribers between March 2007 and June 2009 being former dial-up subscribers, this implies that at least two million of the remaining new broadband subscribers were taking up an internet connection for the first time and chose a higher speed than dial-up from the outset.

⁶⁴ The ABS reporting periods for this statistic changed from the calendar year for 1998 to 2003 to the financial year for 2004–05 onwards.

⁶⁵ *ibid.*

Figure 2.7 Dial-up versus non-dial-up subscriptions



Source: ABS, Internet activity, Australia (8153.0).

Choice of access speed

A major factor affecting the scope of content or applications that can be accessed over the internet is the speed of the connection. It also dictates the consumer's ability to consume particularly high-volume content.

The ACCC has long stated that it believes companies should avoid reference to 'theoretical maximum' or 'peak' speeds when making broadband speed claims. This is because there are a number of factors that could affect the broadband speed a consumer is able to achieve. Instead, the ACCC considers that references to broadband speeds should reflect typical customer experience and should include actual speed ranges and information about factors that can affect speeds.

In 2007, the ACCC published *Broadband connection speeds*, a fact sheet to assist consumers in assessing the speed claims made by ISPs, and produced a guideline to assist ISPs in complying with their legal obligations under the *Trade Practices Act 1974* (TPA) in their advertising of broadband internet speeds.⁶⁶

The ongoing prevalence of misleading advertising on broadband speeds was one of the issues that led to the ACCC meeting with the chief executive officers of Telstra, Optus and Vodafone Hutchison Australia

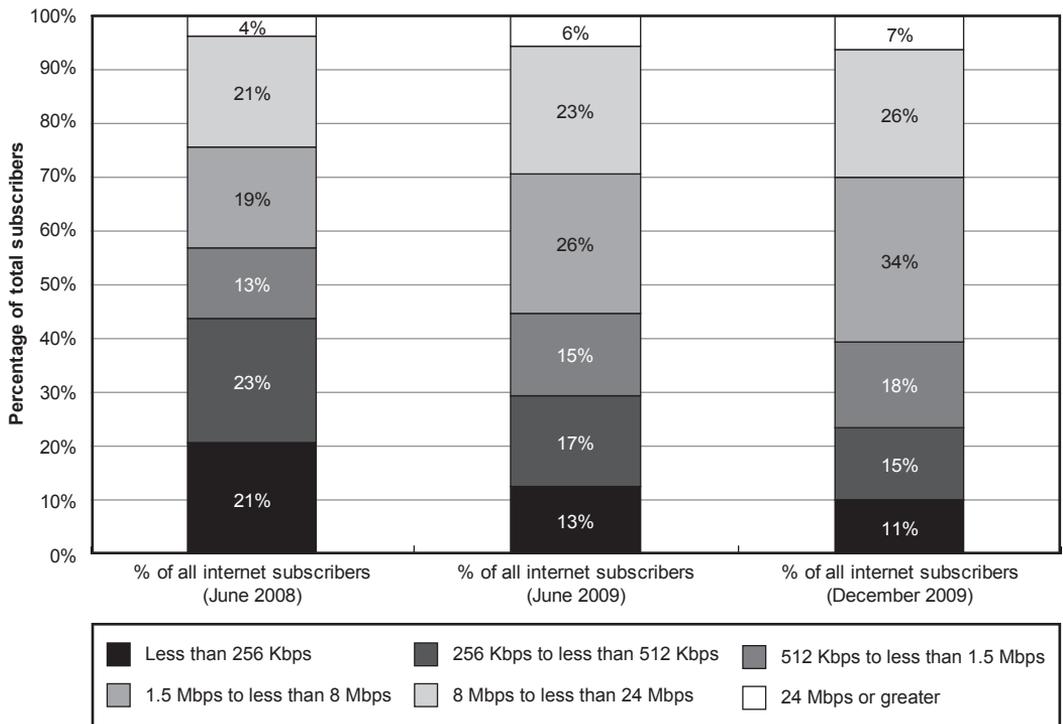
⁶⁶ ACCC, *Broadband connection speeds*, 2007; ACCC, *Broadband internet speed claims and the Trade Practices Act*, 2007.

in August 2009. As a consequence of this meeting, each operator provided the ACCC with a court enforceable undertaking obliging them to review and improve their advertising practices.⁶⁷

Figure 2.8 demonstrates that household customers are also migrating to faster internet connections. Between June 2008 and June 2009 there was a more than 30 per cent drop in the proportion of internet subscribers using very low connection speeds of less than 256 Kbps (including dial-up). Over the same period, the number of subscribers signing up for high-speed connections of between 1.5 and 8 Mbps, for example, increased 59 per cent.⁶⁸

Research published by the ACMA in September 2008 revealed a relationship between the use of a broadband connection and heavy internet use. Internet users with broadband are more likely to be heavy internet users, with over half (62 per cent) recording heavy use (more than eight times a week). Internet users with dial-up services are more inclined to be medium internet users (one to seven times a week), with 57 per cent recording medium use.⁶⁹

Figure 2.8 Household internet connection speeds



Source: ABS, Internet activity, Australia, December 2009 (8153.0).

67 Undertaking to the ACCC for the purposes of s. 87B by Telstra Corporation Limited, Singtel Optus Pty Limited and Vodafone Hutchison Australia Pty Limited, 14 September 2009, <http://www.accc.gov.au/content/index.phtml/itemId/892731>, accessed 25 March 2010.

68 ABS, Internet Activity Survey—June 2009 (8153.0), <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/8153.0Main+Features1Jun%202009?OpenDocument>, accessed 22 February 2010.

69 ACMA, *Telecommunications today—Report 6: Internet activity and content*, 2008, p. 9.

Choice of access technology

Fixed broadband

The increasing take-up and prevalence of broadband technology seems to be related in part to the enlarged DSL footprints of ISPs, and the competitive tension this creates between providers. A further reason for the increased take-up of broadband may be the growing popularity of internet applications such as YouTube, iTunes, peer-to-peer file sharing and online gaming, which require greater bandwidth and connection speeds for optimal use.

In 2008–09, on average, approximately 60 per cent of Organisation for Economic Co-operation and Development (OECD) broadband subscribers accessed the internet using DSL technology.⁷⁰

DSL similarly remains the dominant broadband access technology in Australia, representing 57 per cent of total broadband connections. A further 11 per cent of broadband connections are provided over HFC networks.

Wireless broadband

Fixed wireless broadband

Fixed wireless plays an important role in providing broadband in Australia, offering broadband services in both rural and metropolitan areas.

Using an air interface as an alternative to other access media, like copper wire or fibre, fixed wireless technologies include WiMax.⁷¹

The ACMA reported that there were approximately 233 fixed wireless providers in June 2009, up from 223 in the previous year.⁷² It should be noted that the majority of these fixed wireless providers are small regional providers associated with the regional grants program under the Australian Broadband Guarantee. The extent to which these small operators bring competitive pressure to bear on the market remains an open question.

Mobile broadband

Over 2008–09, the number of mobile broadband subscriptions increased substantially, with the technology's share of broadband users growing from 17 per cent to 31 per cent of total broadband connections. These connections appear to be in the main new connections to the internet, as fixed broadband access networks generally retained broadly similar levels of take-up.

70 Organisation for Economic Co-operation and Development, 'OECD broadband statistics to June 2008', http://www.oecd.org/document/54/0,3343,en_2649_34225_38690102_1_1_1_1,00.html, accessed 22 February 2010; OECD, 'Broadband subscriptions by technology', June 2009, <http://www.oecd.org/dataoecd/11/20/39575781.xls>, accessed 22 February 2010.

71 ACMA, *Communications report 2008–09*, p. 35.

72 *ibid.*, p. 31.

When collecting data from providers on the number of SIOs, the ACCC defines mobile broadband services as those:

that permit internet connectivity to a laptop or other computer over a wireless access network (typically a 3G network).⁷³

These connections are distinguished from 3G handset services, as they provide internet access via customer equipment such as a USB modem or datacard connected to a laptop computer instead of over a mobile phone handset. Voice services are not usually supplied with mobile broadband services (although many support SMS) and their subscriber plan terms most closely resemble those of fixed broadband services.

This definition is consistent with the definition used by the ABS:

Connections to the internet via mobile telephones are excluded from the scope of this (Internet Activity) survey. However, mobile wireless subscriptions to the internet via a datacard or USB modem are included.⁷⁴

It also corresponds with mobile broadband definitions being presented by major service providers in their public reporting.⁷⁵

Satellite broadband

Satellite broadband services provide 100 per cent coverage of Australia's landmass. In June 2009 there were around 47 satellite broadband service providers operating in Australia, with most being regional ISPs reselling satellite broadband to regional, rural and remote customers.⁷⁶

2.8.3 Internet: concentration

In June 2008, the ACMA recorded a decline in the number of ISPs in Australia from 678 in 2007–08 to 638 in 2008–09.⁷⁷

Concentration in the market for fixed broadband services

In 2008–09 DSL provided 57 per cent of all broadband services, but 83 per cent of all fixed broadband connections.

The total number of DSL connections declined by almost 1 per cent in 2008–09. This could be due to maturing demand in the sector and some migration to mobile wireless alternatives at the margins.

⁷³ ACCC, Changes in the prices paid for telecommunications services in Australia 2007–08, p. 139.

⁷⁴ ABS, Internet Activity Survey—June 2009 (8153.0), <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/8153.0Main+Features1Jun%202009?OpenDocument>, accessed 25 March 2010.

⁷⁵ Telstra introduced a new definition for mobile broadband in its 2008–09 annual report '(b)ased on a simplified definition which includes only data cards, USB dongles and embedded modems'—Telstra, *Annual report 2009*, p. 10. Optus: 'Wireless broadband subscribers are provisioned with HSPA broadband service on both post-paid and prepaid. Excludes data pack attached to voice services.'—SingTel Optus, 'Financial results presentation Q1 FY10: Quarter ended 30 June 2009', <http://info.singtel.com/about-us/investor-relations/financial-results>, p. 16, accessed 26 March 2010.

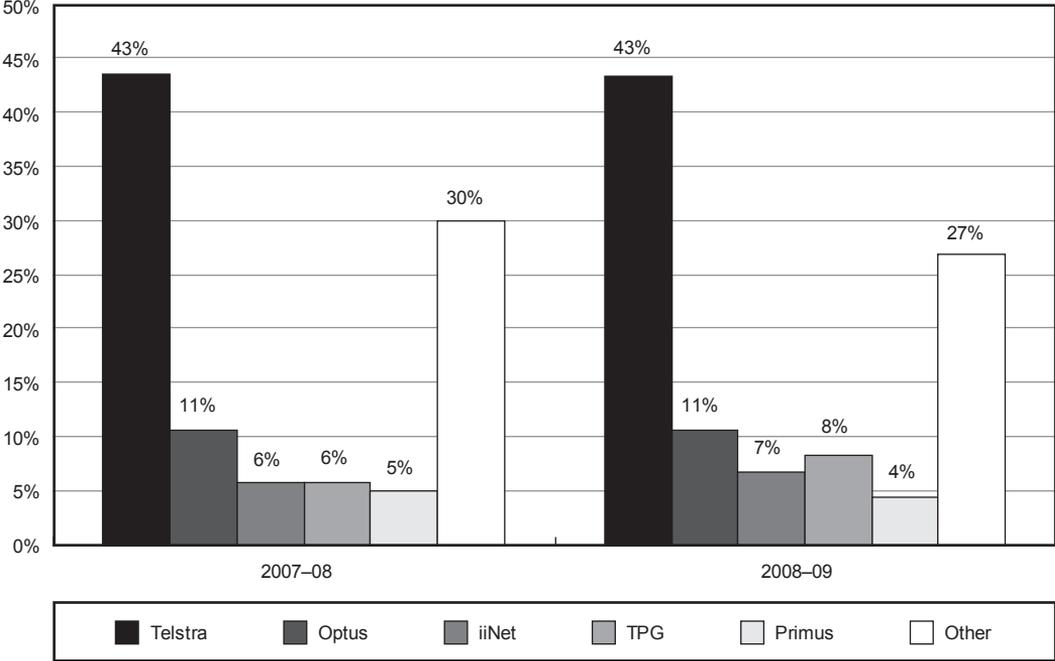
⁷⁶ ACMA, *Communications report 2008–09*, p. 21.

⁷⁷ *ibid.*, p. 27.

Figure 2.9 shows Telstra retaining its dominant market share of 43 per cent from 2007–08. Optus retained its second place in the market with a steady 11 per cent of DSL connections.

The ACCC monitors a number of other service providers directly through record keeping rules and can also derive data for the more than 520 ‘other’ DSL service providers.⁷⁸ Of these providers, notably, iiNet raised its market share to 7 per cent, and TPG’s stake in the market increased to 8 per cent, while the ‘other’ service providers lost market share as a whole.⁷⁹

Figure 2.9 Retail fixed broadband (DSL) market shares by number of subscribers, 2007–08 to 2008–09



Sources: Division 12 RKR; Telstra CAN RKR.

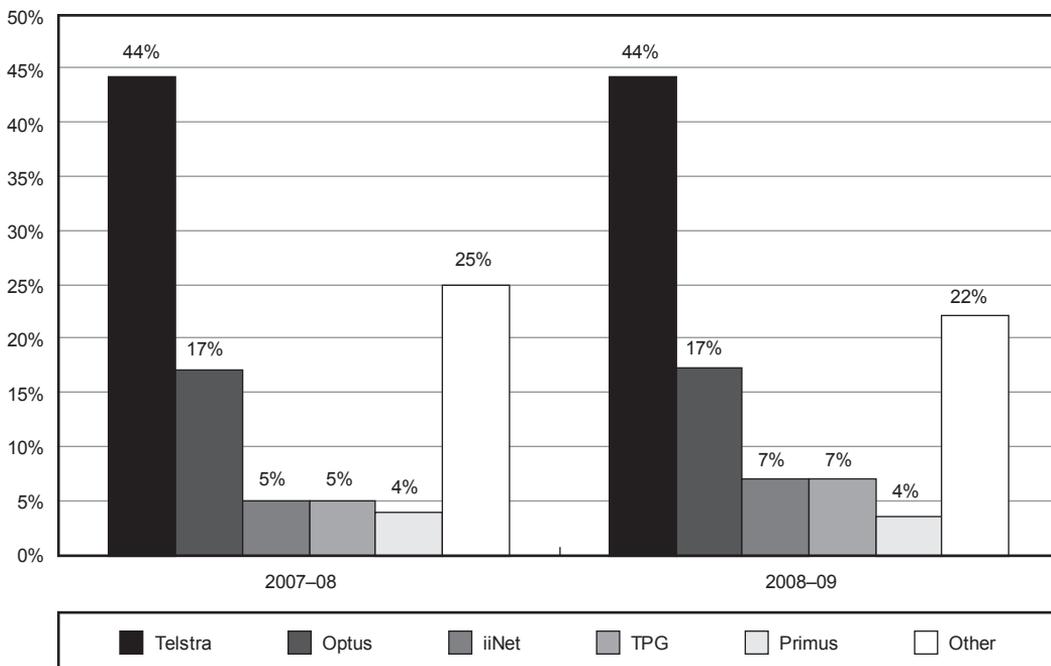
HFC accounts for 17 per cent of all fixed broadband connections. This is less than the OECD average of 29 per cent of subscribers having broadband access via cable technology.⁸⁰

78 ACMA reports a total of 529 DSL service providers in Australia in 2008–09. ACMA, *Communications Report 2008–09*, p. 31.

79 ACCC, Division 12 RKR.

80 OECD, ‘OECD broadband statistics to June 2008’, http://www.oecd.org/document/54/0,3343,en_2649_34225_38690102_1_1_1_1,00.html, accessed 22 February 2010; OECD, ‘Broadband subscriptions by technology’, June 2009, <http://www.oecd.org/dataoecd/11/20/39575781.xls>, accessed on 22 February 2010.

Figure 2.10 Retail fixed broadband (DSL and HFC) market shares by number of subscribers, 2007–08 to 2008–09



Sources: Division 12 RKR; Telstra CAN RKR.

The two major HFC networks in Australia are owned by Telstra and Optus. In combination, they cover 2.6 million homes and premises in the capital cities of the eastern states. Two smaller networks are operated in central Victoria and in and around the Australian Capital Territory (see appendix B for more information).⁸¹ These HFC networks combined have far fewer connections and a smaller footprint than the DSL networks.

Telstra’s HFC network increases its dominance of major metropolitan markets, adding almost 20 per cent more high-speed broadband connections and one percentage point of market share. When HFC networks are taken into account, Optus has a 17 per cent share of fixed broadband services. This is reflected in Figure 2.10.

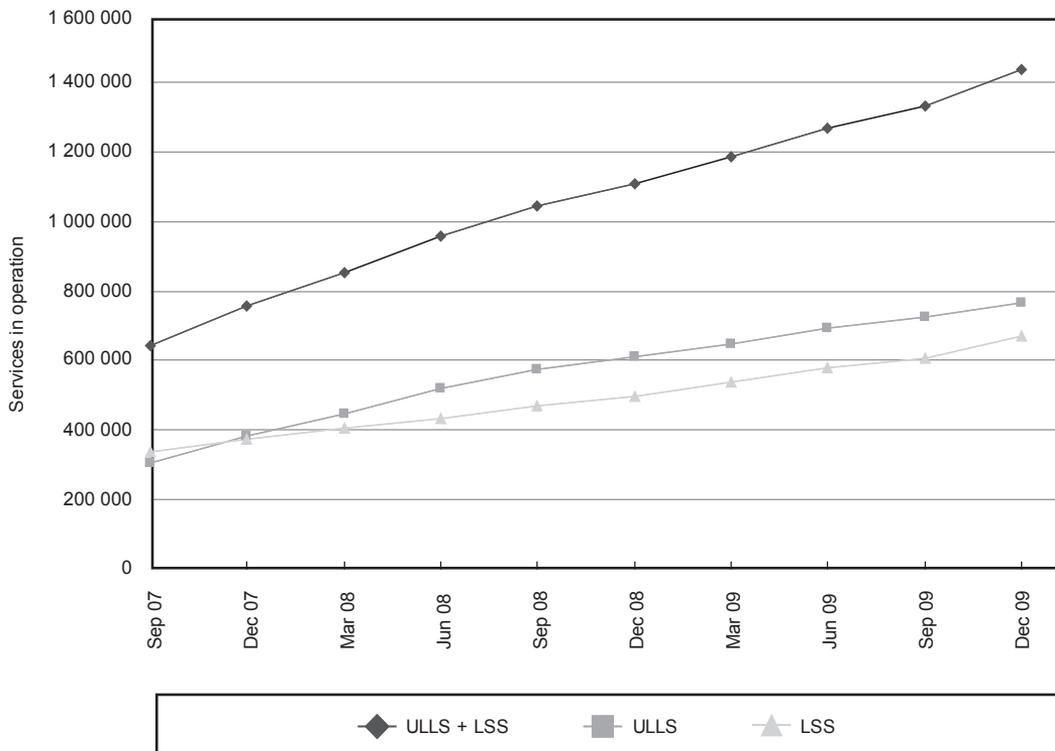
Growth in unbundled services

While slow to start, take-up of Telstra’s regulated ULLS and LSS services has grown strongly since ULLS was first declared in 1999 and LSS in 2002.⁸²

81 TransACT, which owns both the Australian Capital Territory and central Victorian HFC networks through its subsidiary Neighbourhood Cable, does not report its HFC services in operation (SIOs) to the ACCC under the Division 12 RKR. Therefore, its HFC SIOs—believed to be fewer than 100 000—are not included.

82 ACCC, *Draft pricing principles and indicative prices for LCS, WLR, PSTN OTA, ULLS, LSS*, 2009, pp. 39 and 41.

Figure 2.11 Unbundled services growth, June 2007 to December 2009



Source: Telstra CAN RKR.

In 2007, approximately 6 per cent of access lines in operation in Telstra’s CAN were being used to supply ULLS or LSS.⁸³ At the end of December 2009, however, this had grown to 15 per cent.⁸⁴

If this analysis is restricted to access lines being used to supply DSL services, ULLS and LSS penetration levels increase. In 2007, approximately 17 per cent of DSL services were being supplied by access seekers acquiring the ULLS or LSS. By the end of 2009, this had increased to approximately 32 per cent.

This data suggests that, coupled with DSLAM investment by access seekers, there is greater competition for the provision of broadband services to consumers in areas served by ULLS- and/or LSS-based competitors.

While this shift towards greater competition is encouraging, the competitive footprint remains of limited scope and concentrated in metropolitan areas.

Over 2008–09, the competitive footprint grew only modestly, with the number of exchanges supporting at least one competing DSL network increasing from 521 to 541.⁸⁵ In total, there are over 5000 exchange service areas, although a large number of these support relatively few subscribers.

83 Telstra CAN RKR, September 2007, available on the ACCC website

84 Telstra CAN RKR, December 2009, available on the ACCC website.

85 *ibid.*

Further, by the end of 2008–09, 458 (or around 75 per cent of the total number of) metropolitan exchanges were supporting at least one competing DSL network—as opposed to 83 in regional areas.

It is not expected that unbundled services will expand significantly beyond their December 2009 footprint—primarily because of the technical limitations of the copper network in supporting broadband access over the longer lines that are more prevalent in many regional areas, and because of cost.

However, the ACCC notes that the Australian Government's Regional Backbone Blackspots program may see new markets open where lack of competitively priced backhaul services has been inhibiting the roll-out of services.⁸⁶ This is demonstrated by the entry of ULLS- and LSS-based operators in Tasmanian exchanges following the commencement of the Basslink fibre service.

There is little evidence to date that either the announced roll-out of the NBN or regulatory issues are discouraging service providers from investing in DSL networks. SingTel's June 2008 quarterly management report indicates that its halt in exchange entries in 2008–09 was a predetermined strategic decision by the operator: 'As at 30 June 2008, there were 360 ULL exchanges completed. The ULL build will include a total of 366 exchanges with a coverage footprint of 2.9 million premises.'⁸⁷

In 2009, a number of carriers stated that they intended to continue to invest in the sector, with future DSLAM roll-outs to take advantage of the eight-year time lag before the NBN is fully operational.⁸⁸

For instance, Internode's CEO stated that its entry into 57 new exchanges and expansion of its presence in 115 others in Victoria and Tasmania included 'a number of strategic locations that we see as a good place to be in the future'.⁸⁹

Furthermore, Primus, Internode and iiNet are directly involved in the NBN development process, committing to offer services on the live network in NBN Tasmania's Mornington stage 1 proof-of-concept test centre.⁹⁰

86 Department of Broadband Communications and the Digital Economy website, http://www.dbcde.gov.au/funding_and_programs/national_broadband_network/national_broadband_network_Regional_Backbone_Blackspots_Program, accessed 22 April 2010; L Coleman, 'iiNet-Optus deal opens up 8 new ADSL2+ exchanges', *Communications Day*, 3 November 2009.

87 Singapore Telecommunications Limited and subsidiary companies, *Management discussion and analysis of financial condition, results of operations and cash flows for the first quarter ended 30 June 2008*, p. 45.

88 S Tindall, 'DSLAM roll-outs continue despite NBN', *ZDNet*, April 21 2009, <http://zdnet.com.au>, accessed 28 March 2010.

89 R Gedda, 'Internode spends \$10m on 57 exchange broadband expansion', *Computerworld*, 15 June 2009, <http://www.computerworld.com.au>, accessed 28 March 2010.

90 'NBN Tasmania opens test centre, names first ISPs', *Exchange Daily*, 16 March 2010, p. 4.

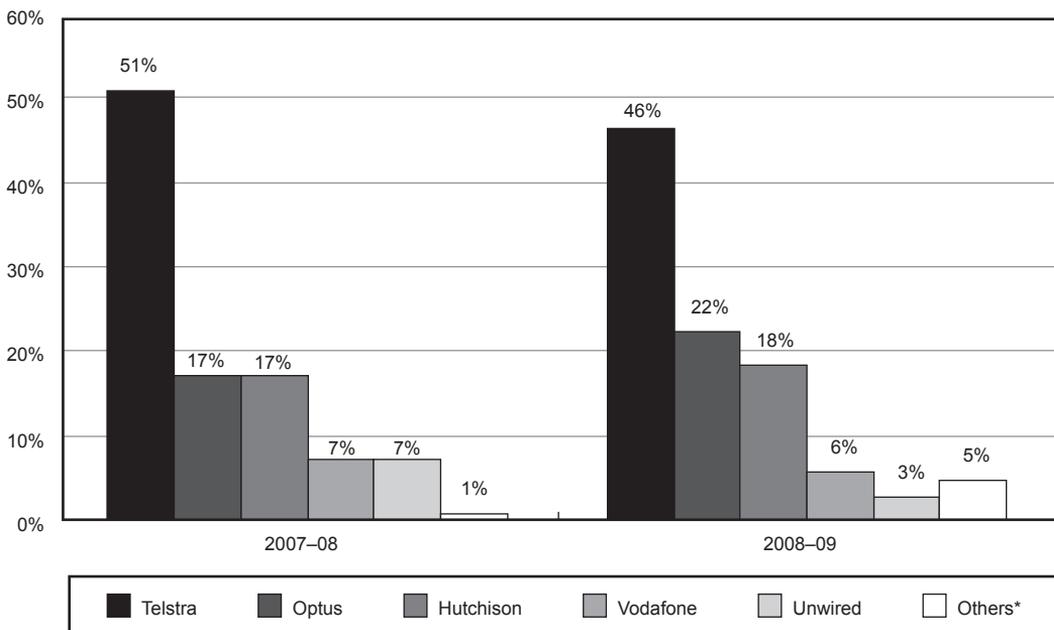
Concentration in the market for mobile broadband services

Mobile broadband SIOs increased by almost 120 per cent in 2008–09. Telstra maintained the highest market share in this segment.

Optus increased its mobile broadband subscriber numbers by almost 185 per cent, in the process confirming its position as the provider of the second-largest number of mobile broadband services.

Hutchison and Vodafone each recorded strong growth as well, increasing SIOs by 135 per cent and 75 per cent respectively. On the other hand, Unwired's SIOs fell by more than 15 per cent.

Figure 2.12 Mobile broadband market shares by subscriber numbers, 2007–08 and 2008–09



Source: Division 12 RKR.

Note: **Others* represents Optus wholesale only.

The remaining 'Others' included independent service providers offering consumers resale Optus mobile broadband services. It is understood that Telstra is not providing resale of its Next G services.

2.8.4 Internet: price trends

The ACCC introduced an internet services index to its *Changes in the prices paid for telecommunications services in Australia 2007–08* report. This index shows how prices have changed for consumer-grade internet services.

Wireless services are included in the internet services index for the first time in the 2008–09 report. Average real prices for wireless broadband services fell by 18.5 per cent over the reporting period.⁹¹

Across the board, average real prices paid for internet services decreased by 4.6 per cent in 2008–09, compared with a fall of 6.2 per cent in 2007–08. Average real prices for dial-up services are estimated by the ACCC to have reduced by 13.8 per cent in 2008–09, with average real prices for DSL internet decreasing by 0.4 per cent while average real prices for cable internet services increased by 0.5 per cent.

In its third-quarter 2009 study of trends in broadband pricing in Australia, the Venture Consulting / Internet Industry Association (IIA) broadband pricing index found that broadband prices continue to fall, but only in segments of the market where strong competition exists. Significant competition was apparent among providers of high-speed broadband packages offering theoretical peak network speeds of 17 Mbps or more.⁹² The highest usage plans showed the greatest decline in access pricing over the last three years. It should be noted that the overall 'price' reductions in this segment can be explained by an increase in data allowance (and hence a reduced implied price per unit of data) rather than a decrease in the headline price.

The study also analysed continued declines in the pricing of mobile broadband services, and identified these as having been driven by strong market competition and the proliferation of high-speed downlink packet access (HSDPA) wireless technology. Having noted that pricing competition had stagnated in lower speed broadband services due to an over-dependence on resale services, the study indicated that both mobile and high-speed fixed broadband exemplified the fact that 'where infrastructure competition exists, service providers will more aggressively price their offerings, driving down the access price for consumers.'⁹³

91 See 'Key results' in ACCC, *Changes in the prices paid for telecommunications services in Australia 2008–09*, in this volume.

92 Venture Consulting and Internet Industry Association, *Venture Consulting / IIA broadband index*, 9th edition (quarter 3, 2009), p. 2.

93 *ibid.*, p. 1.

2.9 Trends in fixed and mobile subscriptions and utilisation

An issue of ongoing industry comment and debate is whether mobile platforms provide a complement to or a substitute for established fixed telecommunications platforms. The recently observed trends in fixed and mobile subscriptions provide a further opportunity to consider this issue.

Understanding whether services are substitutes or complements has important implications for regulatory policy, as substitutability has a bearing on pricing and bundling, and therefore competition, in the supply of services.

Substitution in this context means the disconnection of a subscriber from one network platform to connect instead via a competing network platform. It is distinct from subscribers simply changing their preferences as to how they use their fixed and mobile services, such as whether they choose to make more or fewer calls from a particular handset.

This section looks at two sets of trends which have been identified as possible indicators of substitution occurring:

- fixed and mobile service uptake
- fixed and VoIP (including naked DSL) service uptake.

2.9.1 Fixed and mobile service uptake

In 2008–09, the leading provider of both fixed voice and mobile services, Telstra, announced that for the first time its mobile service revenue exceeded its fixed voice revenue—27 per cent compared to 25 per cent.⁹⁴ Telstra's PSTN revenue has also declined sharply—by 4.9 per cent in the year to June 2009⁹⁵ and by a further 6.9 per cent by the end of December 2009.⁹⁶ In both cases, Telstra identified a substantial reduction in call usage, especially in local calls, as a primary cause for these declines.⁹⁷

However, commenting on these results Telstra asserted that wireless broadband's recent popularity has added to an existing trend whereby households dispense with their fixed voice connection altogether and rely on mobile phone services as a full substitute.⁹⁸ As of December 2009, Telstra estimated that close to 10 per cent of Australian households had gone mobile-only.⁹⁹

Some limited support for the view that substitution could be occurring can be found in a 2008 survey commissioned by the ACMA. This survey examined consumers' attitudes to potentially substituting fixed and mobile services based on various demographics, including age, lifestyle, communications preferences and technical knowledge.¹⁰⁰

94 Telstra, *Annual report 2008–09*, p. 11.

95 *ibid.*, p. 12.

96 Telstra, *Financial highlights half year ended 31 December 2009*, p. ii.

97 Telstra, *Annual report 2008–09*, p. 12; Telstra, *Financial highlights half year ended 31 December 2009*, p. ii.

98 *ibid.*

99 *ibid.*

100 ACMA commissioned Roy Morgan Research to undertake a national telephone survey in May–June 2008. The survey respondents were divided into two subgroups: fixed-line users (1396 respondents) and mobile-phone users not connected to a fixed-line service (241 respondents).

The ACMA survey found that mobile-only households were not unusual among 18–24-year-old consumers, comprising a third of those in this age group.¹⁰¹ However, substitution was much less common in the case of older consumers. Few of those over 55 years old relied on a mobile service in any substantive way.

Accordingly, the ACMA survey strongly suggests that the potential for substitution will likely be limited to a minority of consumers, with substantial increases in the number of consumers that fall into this category most likely to require generational shifts in behaviour.

A further factor that militates against the view that there will be rapid substitution between fixed and mobile platforms is that these platforms do not support the same functionality and quality of service, with each having potential advantages over the other.

Consequently, consumers who might be willing to consider substituting from a fixed to a mobile service will make their decision based on how they value the distinguishing features of each service. This assessment is likely to change over time with changes in lifestyle and technological development.

In 2008–09, the proliferation of smartphones, mobile broadband access plans and new mobile applications is likely to have contributed to the growth in mobile subscriptions. Further, a number of applications currently being accessed over the internet—including lower bandwidth applications such as web browsing, email and instant messaging—can all be efficiently supported by a broadband service (including over a mobile platform) providing theoretical peak network speeds of less than 1.5 Mbps.¹⁰²

Future developments could similarly reinvigorate growth in the take-up and utilisation of fixed-line services, or diminish the attractiveness to consumers of choosing to forgo fixed subscriptions in favour of mobile-only services.

These pending developments include the introduction of the NBN (and/or other developments that significantly increase the capability of fixed-line networks), and innovation at the application layer or in customer premise equipment.

Video file sharing and IPTV are examples of applications that would likely require a fixed-line platform to be provided to a mass market.¹⁰³ For consumers who place a high value on these or similarly high-bandwidth applications, mobile platforms would be unable to provide the full range of services they require.

Mobile platforms will also likely follow a technology upgrade path, such as upgrades to support long-term evolution (LTE) services. However, at the time of writing, the ACCC takes the view that fixed-line access networks will remain more capable than mobile platforms over time, in terms of the scope of applications that can be supported, the number of subscribers that can be supplied and the quality of service that can be offered.¹⁰⁴

At the usage level, however, there is growing evidence suggesting that changes in consumer behaviour are occurring, with pricing being the most significant factor. The increasing availability of ‘bucket plan’

101 ACMA, *Convergence and communications—Report 1: Australian household consumers' take-up and use of voice communications services*, pp. 19–20.

102 ACCC, ‘Fixed services review declaration inquiry for the ULLS, LSS, PSTN OA, PSTN TA, LCS and WLR—final decision’, July 2009, p. 31.

103 *ibid.*, p. 30.

104 *ibid.*, p. 31.

arrangements for mobiles—where calls are not individually charged up to a particular limit or cap—means that consumers make decisions on whether to use a landline or a mobile based on the particular circumstances of the call.

For example, a consumer may choose to utilise free minutes for on-net calls under their mobile cap to place calls on the same network. However, the same consumer may also take advantage of a capped national call rate using their fixed line.

2.9.2 Fixed-line services and VoIP uptake

The take-up of naked DSL and VoIP services could potentially be contributing to the decline in total subscriptions to fixed-line networks and usage of fixed voice services. This is because for multi-line premises, such as businesses, a naked DSL and VoIP solution can be used to replace a number of lines. However, in this segment VoIP services are typically supported by carrier-grade networks.

While there may be indications that take-up of VoIP services is increasing, the ACCC does not consider that consumers regard VoIP services as a sufficient substitute to create a constraint on the pricing of local telecommunications services.

An ACMA-commissioned survey undertaken in the second quarter of 2009 found that VoIP users were foremost accessing the service to make international calls (71 per cent of all users of VoIP services). Following this, the use of VoIP to make long-distance calls was also popular (50 per cent of all users of VoIP services). Employing VoIP for local calls was less popular (38 per cent of all users of VoIP services).¹⁰⁵

This strong consumer preference for using VoIP to make international and long-distance calls suggests that consumers are employing the service as complementary to traditional PSTN voice services, with only a small group of consumers adopting VoIP as a full substitute at this time.

2.10 Complaints and quality of service

The ACCC received more than 4559 complaints in 2008–09 concerning consumer protection issues in the telecommunications sector. This was an 8.4 per cent increase from the 4207 complaints received in the previous year. About 29 per cent of complaints did not fall within the ACCC's jurisdiction and those complainants were referred to other bodies.

During the reporting period, the ACCC had 27 active and major investigations into consumer protection issues in the telecommunications industry. Further details on ACCC investigations undertaken during 2008–09 are available in chapter 4 of this report.

The Telecommunications Industry Ombudsman (TIO) annually reports on the complaints it receives from consumers. Table 2.5 presents the complaints received in 2008–09 and the two previous years, classified by service and the total number of complaints received in each year.

¹⁰⁵ ACMA, *The Australian VoIP market: The supply and take-up of VoIP in Australia*, p. 9.

Table 2.5 Complaints received by the TIO, by service type, 2006–07 to 2008–09

Type of service	2006–07	2007–08	2008–09
Mobile premium	7 086	13 899	15 653
Internet	27 591	34 217	53 662
Mobile	33 670	47 300	84 510
Fixed voice*	34 116	54 326	76 240
TOTAL	102 463	149 742	230 065

Source: Telecommunications Industry Ombudsman, *Annual report 2009*, figure 7.

Note: *TIO refers to these as 'landline' services.

In 2008–09 the total number of consumer complaints to the TIO increased by 54 per cent.¹⁰⁶ This followed an increase of 46 per cent in the total number of complaints received in 2007–08. The TIO reported at that time that in 2007–08 it had seen the biggest rise in consumer complaints against industry operators in 10 years.¹⁰⁷

In the 2008–09 media release accompanying the report, the Ombudsman noted that mobile services and ISPs had attracted the highest annual increases in complaints—79 per cent and 57 per cent respectively. The Ombudsman suggested that this reflected 'the greater take-up of broadband internet services and a greater variety of services offered through mobile phones used by Australian consumers'.¹⁰⁸

In its report, the TIO saw the minimal increase in complaints about mobile premium services (MPS)—after a rise of nearly 100 per cent in 2007–08—as indicating 'an early acknowledgement by MPS providers of the tighter restrictions imposed by the ACMA from 1 July 2009'.¹⁰⁹

In particular, the top three issues subject to consumer complaints in 2008–09 were (from highest to lowest): billing and payment (billing disputes), customer service, and complaint handling.¹¹⁰

The performance of the major fixed voice service providers against the benchmarks of the customer service guarantee (CSG) can also provide some insight into service quality trends.¹¹¹

The CSG Standard specifies time frames within which service providers must provide certain customer services, including connecting telephone services and repairing faults.¹¹²

106 However, the TIO notes that 90 per cent of the 230 065 complaints received in 2008–09 were resolved with a referral back to the service provider. TIO, 'TIO calls on industry to focus on customers', media release, 23 October 2009.

107 TIO, 'Record increase in complaints to the Telecommunications Industry Ombudsman', media release, 22 October 2008.

108 TIO, 'TIO calls on industry to focus on customers', media release, 23 October 2009.

109 TIO, *Annual report 2008–09*, p. 5. In 2008 the Communications Alliance consulted on a draft industry code that sets out the obligations of suppliers to establish appropriate community safeguards in the provision of mobile premium services. The mobile premium services code specifies minimum requirements on advertising, provision of information, service delivery, complaint handling and opt-out mechanisms. The code came into effect on 1 July 2009.

110 TIO, *Annual report 2008–09*, p. 5.

111 The CSG specifies time frames for the connection and repair of standard telephone services and applies to all carriers and CSPs—excluding those granted an exemption by ACMA.

112 The Telecommunications (Customer Service Guarantee) Standard 2000 (No 2) (CSG Standard) seeks to encourage the timely provision and maintenance of standard telephone services (and certain enhanced call-handling features) for residential customers and small business customers with five or fewer telephone lines.

In 2008–09 the ACMA reported that overall the CSG performance levels of Telstra, Optus and AAPT had improved over the previous 12 months.¹¹³

The ACMA also found that Optus and AAPT had met the benchmark by providing new connections within the CSG-specified time frame 90 per cent or more of the time. Telstra failed to meet this benchmark in 2008–09, providing new connections on time on 88.3 per cent of occasions. However, the ACMA noted that this was a slight improvement on Telstra's 2007–08 result of 87.9 per cent. The ACMA also reported that all three providers made in-place connections (automatic reconnections) within the CSG-specified time frames.¹¹⁴

In addition to tracking providers' success in meeting the CSG-specified time frames generally, the ACMA also records where a provider fails to meet these time frames by six or more days. These incidences are referred to as 'extreme failures'. Both Optus and Telstra customers experienced extreme failures in 2008–09. However, in that year Telstra's extreme failures increased 79 per cent, following an increase of 136 per cent in 2007–08.¹¹⁵ In contrast, Optus's extreme failures decreased by 75 per cent in 2008–09.¹¹⁶

The ACMA comments that the Optus result 'represents a marked improvement ... given that the overall number of connections undertaken by Optus only declined by 2.3 per cent.'¹¹⁷ This outcome also meets the ACCC's expectation that Optus's connection delays would reduce as its mass migration of fixed-line subscribers to ULLS tapered off (see Figure 2.1).¹¹⁸

The ACMA also reports on operators' responsiveness to reported faults. In 2008–09, Optus and Telstra met the overall 90 per cent benchmark for fault repairs, after having both failed to do so in 2007–08.¹¹⁹

Another measurement of Telstra's quality of service is the network reliability framework (NRF). The NRF is a safeguard for Telstra's 6.3 million residential and small business customers with five or fewer lines. The framework complements the CSG, which ensures that faults are repaired within reasonable time frames. The NRF requires Telstra to publish monthly data showing the reliability of services on a national basis and in 44 different regions covering the whole of Australia.¹²⁰

In 2008–09, the monthly average of Telstra's services which did not experience a fault was 98.72 per cent, a small decrease from the 2007–08 monthly average of 98.85.¹²¹ Where faults did occur, the ACMA recorded that Telstra took on average 51 hours for services to be restored, down from 63 hours in 2007–08.¹²²

113 ACMA, *Telecommunications performance bulletin 2008–09*, p. 1.

114 *ibid.*

115 *ibid.*, pp. 9–10.

116 *ibid.*, pp. 13–15.

117 *ibid.*, p. 13.

118 ACCC, *Telecommunications competitive safeguards for 2007–08*, p. 36.

119 In 2008–09, Optus responded within the required time frame on 90.6 per cent of occasions, compared to 86.5 per cent of occasions in 2007–08. Telstra undertook repairs in time on 90.5 per cent of occasions, compared to 86.5 per cent of occasions in 2007–08. AAPT met the CSG-specified time frame in 2007–08 and 2008–09, on 96.6 per cent and 93.9 per cent of occasions respectively. ACMA, *Telecommunications performance bulletin 2008–09*, p. 25.

120 The network reliability framework is available at http://www.acma.gov.au/WEB/STANDARD/pc=PC_2048.

121 ACMA, *Telecommunications performance bulletin 2008–09*, pp. 1 and 90.

122 *ibid.*, p. 1.

2.10.1 Complaints and quality of service: fixed voice services

In 2008–09, the TIO received a total of 39 609 billing dispute complaints against fixed voice providers, the second-highest number of billing dispute complaints lodged with the TIO in 2008–09, after those received against mobile service providers. This represents a 93 per cent increase on the number of billing dispute complaints lodged against fixed voice providers in 2007–08.¹²³

Fixed voice providers also attracted the second-highest number of complaints against operators' customer service and complaint handling in 2008–09. In that year, the TIO received 31 839 complaints against fixed voice operators' customer service practices, a 54.5 per cent increase on 2007–08 numbers. A total of 24 409 complaint-handling complaints against fixed voice providers were lodged with the TIO against fixed voice operators in 2008–09, 124 per cent more than in 2007–08.

2.10.2 Complaints and quality of service: mobile voice services

Mobile services attracted the most complaints from consumers about billing disputes, customer service and complaint handling in 2008–09, overtaking fixed voice services for the first time as the leading source of consumer complaints. The TIO has suggested that this succession simply reflects 'the increasing penetration and breadth of mobile services'.¹²⁴

In 2008–09, billing dispute complaints against mobile service providers rose 151.9 per cent to 45 495. Complaints against mobile service providers' customer service grew 96.8 per cent to 35 202, and complaints against their complaint-handling practices rose by 149.2 per cent to 25 675.

The TIO found that in 2008–09, in addition to attracting the most complaints, mobile service providers had the highest increase in the rate of complaints against them.

2.10.3 Complaints and quality of service: VoIP

The TIO does not separately report on complaints it receives on the provision of VoIP services.¹²⁵

Nevertheless, a recent survey commissioned by the ACMA found that nearly 80 per cent of those interviewed were either satisfied or very satisfied with the VoIP service they were receiving. Only 9 per cent stated that they were either dissatisfied or very dissatisfied with their VoIP service provider.

Allowing that the quality of service of VoIP services anecdotally varies, the ACMA survey results seem to suggest that the expectations of VoIP users are at least being effectively managed.

¹²³ TIO, *Annual report 2008–09*, p. 42.

¹²⁴ *ibid.*, p. 5.

¹²⁵ However, a case study involving a wireless VoIP service was included in the TIO 2007–08 annual report. TIO, *Annual report 2007–08*, p. 54.

2.10.4 Complaints and quality of service: internet

The number of complaints to the TIO relating to internet services increased by 24 per cent in 2007–08 and 57 per cent in 2008–09.¹²⁶ The TIO suggests that this reflects the greater take-up of mobile broadband.

On subscribers' experience of internet services more generally, an ACMA-commissioned Roy Morgan survey found that 78 per cent were either satisfied or very satisfied with their ISP service.¹²⁷ This was a similar satisfaction level to that for the year ended June 2008, when 75 per cent of domestic internet users said that they were satisfied with their ISP service.¹²⁸

However, two international studies of broadband performance conducted during 2008–09 revealed that services being provided in Australia were lagging behind global standards:

- Australian average connection speeds were ranked eighth and 47th in the Asia-Pacific and the world respectively in the August 2009 Akamai *State of the internet* report.¹²⁹
- The Oxford University and University of Oveido 2009 global survey of broadband services, based on download speed, upload speed and latency, ranked Australia 32nd out of 66 countries. This was just sufficient to credit Australian broadband services at the standard of 'meeting the needs of today's applications'.¹³⁰

2.10.5 Summary

The technical and operational quality of fixed services in Australia remained strong during 2008–09. This was evidenced by the ACMA's measure of the CSG performance levels and the NRF measurement. However, billing practices, customer service and complaints handling by fixed-line operators were poor over the period. This was shown by the record number of complaints received by the TIO relating to these areas (93 per cent, 54.5 per cent and 124 per cent increases respectively).

During 2008–09 billing practices, customer service and complaints handling by mobile operators were also poor. However, the record number of complaints received by the TIO against mobile operators during the period can in part be attributed to increased consumer take-up of mobile services during 2008–09.

By international standards, Australia's broadband performance appears to be middle-of-the-road in terms of download speed, upload speed, and latency. While the TIO received an increase in the number of complaints against ISPs during the period, this is largely reflective of the greater take-up of mobile broadband. Generally most consumers (78 per cent of those surveyed) appear to be satisfied or very satisfied with their ISP service.¹³¹

¹²⁶ TIO, *Annual report 2008–09*, figure 7.

¹²⁷ ACMA, *Communications report 2008–2009*, p. 15.

¹²⁸ *ibid*, p. 67.

¹²⁹ Akamai, *State of the internet*, 2010, <http://www.akamai.com/stateoftheinternet/>.

¹³⁰ Oxford University and University of Oveido, *Broadband quality score: A global study of broadband quality—September 2009*, [http://www.sbs.ox.ac.uk/newsandevents/Documents/Broadband%20Quality%20Study%202009%20Press%20Presentation%20\(final\).pdf](http://www.sbs.ox.ac.uk/newsandevents/Documents/Broadband%20Quality%20Study%202009%20Press%20Presentation%20(final).pdf), accessed 29 March 2010.

¹³¹ ACMA, *Communications report 2008–2009*, p. 15.

3 Anti-competitive conduct provisions

This chapter examines activities undertaken by the Australian Competition and Consumer Commission (ACCC) in 2008–09 in relation to the telecommunications-specific and general provisions of the *Trade Practices Act 1974* (TPA) dealing with anti-competitive behaviour.

Part XIB of the TPA contains telecommunications-specific anti-competitive conduct provisions. These provisions prohibit a carrier or carriage service provider (CSP) from engaging in anti-competitive conduct, a prohibition known as the competition rule. Section 151AJ sets out the two circumstances when a carrier or CSP contravenes the competition rule.

The first circumstance is when a carrier or CSP takes advantage of a substantial degree of market power in a telecommunications market with the effect, or likely effect, of substantially lessening competition in that or any other telecommunications market.¹³² An examination of the purpose of the conduct is not required under the competition rule, unlike the general s. 46 misuse of market power provision in Part IV of the TPA.

The second circumstance is when a carrier or CSP engages in conduct relating to a telecommunications market that contravenes the general anti-competitive conduct provisions in Part IV of the TPA, particularly:

- s. 45—contracts, arrangements or understandings that restrict dealings or affect competition
- s. 45B—covenants affecting competition
- s. 46—misuse of market power
- s. 47—exclusive dealing
- s. 48—resale price maintenance.¹³³

3.1 Investigations conducted in 2008–09

The ACCC undertook four investigations into alleged anti-competitive conduct during the 2008–09 reporting period. Three of these investigations were concluded because the ACCC's inquiries suggested that there was insufficient material to substantiate the alleged conduct as requiring action under Part IV or Part XIB of the TPA. The fourth investigation is ongoing.

The four anti-competitive conduct investigations in the reporting period included allegations of misuse of market power, exclusive dealing and agreements lessening competition.

The ACCC also undertook one investigation into conduct alleged to be in contravention of the standard access obligations (SAOs) in Part XIC of the TPA and the facilities access regime in the *Telecommunications Act 1997* (Telco Act), which is administered by the ACCC. In March 2009 that investigation resulted in proceedings being instituted by the ACCC against Telstra in the Federal Court, which are discussed below.

¹³² Section 151AJ(2) of the TPA.

¹³³ Section 151AJ(3) of the TPA.

3.1.1 Exchange capping litigation

The ACCC instituted proceedings against Telstra in the Federal Court on 19 March 2009 for contraventions of the standard access obligations (SAOs) in the TPA and the facilities access regime in the Telco Act.

The SAOs and the facilities access regime in the Telco Act are conditions of Telstra's carrier licence. The SAOs under section 152AR of the TPA require Telstra to permit interconnection of facilities to enable the supply of the unconditioned local loop service (ULLS) and the line sharing service (LSS) to access seekers so that they can provide voice and/or asymmetric digital subscriber line 2+ (ADSL2+) broadband services to retail customers. The facilities access regime requires Telstra to provide access to its facilities.

The ACCC alleged that Telstra refused access seeker requests for interconnection at seven key metropolitan exchanges by claiming that the exchanges were 'capped'. In particular, the ACCC alleged that Telstra claimed that there was no capacity on the main distribution frames (MDFs) available for access seekers to interconnect their equipment to the copper wires running to customer homes. The ACCC alleged that there was capacity available, or that capacity could have been made available, on Telstra's MDFs.

The ACCC also alleged that Telstra engaged in misleading and deceptive conduct in contravention of s. 52 of the TPA, by representing to access seekers individually and on lists published on the Telstra Wholesale website that certain exchanges were capped when there was space available.

On 31 July 2009, Telstra filed a defence including admissions to the majority of the ACCC's pleaded instances of failing to comply with the facilities access regime in both the TPA and the Telco Act, and to misleading and deceptive conduct.

At the time of writing, a hearing on relief was ongoing. The ACCC is seeking a pecuniary penalty, declarations and injunctions.

3.1.2 Competition and advisory notices

The ACCC may issue a competition notice in response to alleged anti-competitive conduct when it has 'reason to believe' that there has been a contravention of the competition rule.

When exercising this discretion the ACCC must consider the guidelines it has issued under s. 151AP(2) of the TPA and any other matters it considers relevant.¹³⁴ Two different types of competition notices can be issued by the ACCC when it has reason to believe that a carrier or CSP has engaged or is engaging in anti-competitive conduct: a Part A competition notice or a Part B competition notice.

Before issuing a Part A competition notice to a carrier or CSP, the ACCC must issue a consultation notice to the carrier or CSP that outlines the anti-competitive conduct and invites the carrier or CSP to make a submission.¹³⁵ The ACCC must not issue a Part A competition notice unless it has considered any submission received in response to the consultation notice.

¹³⁴ ACCC, *Telecommunications competition notice guidelines*, February 2004.

¹³⁵ At the time of writing, under the proposed Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Bill 2009, the requirement for the ACCC to issue a consultation notice before issuing a competition notice is removed and there is specifically no requirement for procedural fairness (Schedule 1, Part 3).

A Part A competition notice serves as a warning that the ACCC has competition concerns in relation to the conduct of a carrier or CSP and that further investigation of this conduct is required. A key consequence of such action is that it enables affected third parties to take their own damages actions in the Federal Court. At the same time, a Part A competition notice aims to encourage the carrier or CSP to change its conduct and gives the ACCC, or an affected carrier or internet service provider (ISP), the option to take action in the Federal Court. The relevant penalty that can be sought by the ACCC is the sum of \$10 million, plus \$1 million for each day the contravention continues. If the contravention continues for more than 21 days, a penalty of \$31 million plus \$3 million for each day over 21 days can be sought.

A Part B competition notice can be issued when the ACCC has reason to believe that the carrier or CSP has committed or is committing a contravention of the competition rule. Once issued, a Part B competition notice reverses the onus of proof in relation to matters in the notice (i.e. it is prima facie evidence of the contravention if proceedings are subsequently brought under Part XIB).

The ACCC may also issue a notice advising a carrier or CSP of the action that it should take, or consider taking, to ensure that it does not engage, or continue to engage, in anti-competitive conduct. This is known as an advisory notice.

The ACCC did not issue any advisory notices or competition notices to carriers or CSPs in the 2008–09 financial year.

3.2 Exemption orders

A carrier or CSP proposing to engage in conduct that may normally breach the competition rule can apply to the ACCC for an exemption order.¹³⁶

The ACCC may grant an exemption order if it is satisfied that:

- the resulting public benefit outweighs any public detriment of lessened competition
- the conduct will not breach the competition rule.

Conduct subject to an exemption order will not be anti-competitive for the purpose of the competition rule.

To date the ACCC has not received an application for a competition rule exemption.

¹³⁶ Section 151AS of the TPA.

3.3 Third line forcing notifications

Third line forcing is a specific form of exclusive dealing that involves the supply of goods or services on condition that the purchaser acquires other goods or services from a third party. It also involves the refusal to supply goods or services because the purchaser refuses to acquire other goods or services from a third party. Sections 47(6) and 47(7) of the TPA make third line forcing a per se breach of the TPA unless it relates to products or services provided by a related body corporate.

Third line forcing conduct can be notified under Part VII of the TPA and authorised by the ACCC on public benefit grounds.

The ACCC received a number of third line forcing notifications from participants in the telecommunications industry in 2008–09. All of these notifications were allowed to stand on public benefit grounds.

4 Consumer safeguard provisions

This chapter provides a brief summary of the Australian Competition and Consumer Commission's (ACCC's) major investigations into potential breaches of the consumer protection provisions contained in Part V of the *Trade Practices Act 1974* (TPA). These include ss. 52 and 53 of the TPA. Section 52 prohibits a corporation in trade or commerce from engaging in misleading or deceptive conduct or conduct that is likely to mislead or deceive. Section 53 of the TPA prohibits a corporation in trade or commerce from making false or misleading representations in connection with the promotion or supply of goods or services.

The TPA does not contain consumer protection provisions specific to the telecommunications sector.

A total of 4559 consumer protection complaints about the telecommunications industry were registered with the ACCC in 2008–09. This was an 8.4 per cent increase from the 4207 complaints received in the previous year. About 29 per cent of complaints did not fall within the ACCC's jurisdiction, and in many cases complainants were referred to more appropriate bodies.

A significant number of complaints received may relate to one issue, particularly where the conduct affects a large number of consumers.

Many of the issues identified were resolved through initial ACCC investigations or by ACCC contact with the relevant parties.

4.1 Investigations conducted in 2008–09

The ACCC undertook 27 major Part V investigations during 2008–09. It also launched a broader initiative to 'clean up' telecommunications advertising. This culminated in September 2009 with industry leaders Telstra, Vodafone Hutchison Australia (operating under the Vodafone, 3 and Crazy John's brands) and Optus (also on behalf of Virgin Mobile) giving a court enforceable undertaking to the ACCC that they would review and improve their advertising practices so that consumers are better informed about the telecommunications products and services they offer.

The ACCC identified the 12 most prevalent types of potentially misleading representations made in telecommunications marketing, and the three industry leaders have undertaken that their advertising will not make these claims in circumstances where they are likely to be misleading to consumers.

Some of the poor practices the undertaking covers are:

- use of terms such as 'free', 'unlimited', 'no exceptions', 'no exclusions' or 'no catches' when this is not the case
- headline price offers in the form of 'price per minute' for mobile phones and phone cards when there are other fees/charges which are not clearly disclosed

- headline claims relating to price, data allowances, total time allowances, speeds and network coverage where the claims cannot generally be sustained for all consumers.

The ACCC also conducted 'truth in advertising' workshops to encourage second-tier telecommunications providers to adhere to the principles in the undertaking.

As part of this industry crackdown, the ACCC issued an information paper to assist companies in complying with the consumer protection provisions in the TPA when advertising mobile and wireless internet services.¹³⁷ The information paper states that companies must not advertise 'maximum', 'up to' or 'peak network' speeds if those speeds are not generally achievable or likely to be achieved by consumers using the network.

The ACCC considers that any internet speed claims made by companies should be based on appropriate tests of network performance that show the speeds that can and will generally be achieved by consumers using the network on a regular basis.

Companies should also prominently state the factors affecting mobile and wireless internet speeds, including congestion and location, given that different speeds will be achieved at different times depending on these variables.

4.1.1 Mobile premium services

The ACCC took action against a number of companies during 2008–09 concerning the advertising of mobile premium services (MPS). As at December 2009 the following matters had been pursued:

- TMG Asia Pacific Pty Ltd TV for its 'text and win' TV promotions and The Mobile Generation I BV (Netherlands) for the Wixawin Woolworths Wishcard internet pop-up promotion. Both promotions offered consumers a chance at winning a prize by participating in an SMS quiz. The ACCC alleged that both the television advertisements and the internet pop-ups did not adequately inform consumers that by responding they would be signed up to an ongoing subscription service charged at premium rates. The outcomes were a court enforceable s. 87B undertaking (Wixawin/TMG) and, in October 2008, consent orders obtained by the ACCC from TMG.
- In February 2009 the ACCC obtained court enforceable s. 87B undertakings from publishers ACP Magazines and Pacific Magazines to improve the overall standard of advertising for MPS in their youth magazines. The ACCC had particular concerns that the overall impression created by the attractive and busy layout of some advertisements for MPS appearing in youth magazines, combined with the inadequate and inappropriate use of fine-print disclaimers, was likely to be misleading in breach of the TPA. Of particular concern was advertising that did not adequately disclose the nature of the services being offered and their costs, such that consumers responding to the advertisements would unknowingly subscribe to an ongoing and costly service rather than acquiring a one-off purchase of a particular ring-tone or wallpaper. Pacific Magazines and ACP Magazines cooperated in response to the ACCC's concerns.

¹³⁷ ACCC, 'Mobile and other wireless internet speed claims and the Trade Practices Act 1974', information paper, September 2009.

- In June 2009 the ACCC obtained consent orders and a court enforceable s. 87B undertaking from AMV Holdings Limited (a UK-based company) for print ads in youth magazines for MPS that the ACCC alleged were misleading.
- In August 2009 the ACCC was successful in a court action against Teracomm Limited (a Bulgaria-based MPS content provider) regarding print ads for MPS in youth magazines. The Federal Court found the ads were misleading because they did not clearly show the nature of the services being offered and their costs.
- In December 2009 the ACCC was successful in a court action against Clarion Marketing Australia Pty Ltd in relation to its Moby Planet MPS scratch card promotion. The Federal Court found that Clarion had engaged in misleading and deceptive conduct. The ACCC previously obtained interlocutory injunctions against Clarion in June 2009.
- The ACCC pursued Star Promotions Club for its scratch card promotions which the ACCC alleged were misleading.¹³⁸

The ACCC also made a submission to the Australian Communications and Media Authority's (ACMA's) review of MPS and worked with the ACMA to raise consumer awareness of mobile premium issues prior to the commencement of the Mobile Premium Services Code on 1 July 2009.

4.1.2 Phone calling cards

During 2008–09, the ACCC investigated a number of examples of consumers being misled about phone cards, which resulted in the ACCC taking legal action against the three largest phone card suppliers. A summary of each matter is below.

- *ACCC v Tel.Pacific*—proceedings finalised 31 March 2009. The ACCC alleged that Tel.Pacific represented that certain phone cards would provide consumers with a specified amount of call time when that was not the case and that no fees other than timed call charges would apply when in fact other fees were charged. The ACCC successfully obtained consent orders for declarations, injunctions and costs.
- *ACCC v Cardcall Pty Ltd*—proceedings finalised 22 May 2009. The ACCC alleged that Cardcall represented that certain phone cards would provide consumers with a specified amount of call time when that was not the case and that no fees other than timed call charges would apply when in fact other fees were charged. The ACCC successfully obtained consent orders for declarations, injunctions and costs.
- *ACCC v Boost Tel & Ors*—hearing 10 December 2009, awaiting judgment. The ACCC alleged that Prepaid Services and Boost represented that certain phone cards would provide consumers with a specified amount of call time when that was not the case, that no fees other than timed call charges would apply when in fact other fees were charged, and that a rate per minute for calls would apply regardless of the number and length of calls made when in fact that call rate was highly unlikely to be achieved. The ACCC is awaiting a decision in this matter.

¹³⁸ This matter was concluded in March 2010, with the ACCC obtaining consent orders from Star Promotions Club.

5 Monitoring and reporting

The Australian Competition and Consumer Commission (ACCC) collects information to enable it to monitor the behaviour of communications industry participants and to develop appropriate regulatory responses. These monitoring activities assist with the ACCC's assessments of appropriate access prices and investigations of potential anti-competitive conduct.

Besides its general powers to obtain information under s. 155 of the *Trade Practices Act 1974* (TPA), the ACCC has telecommunications-specific information-gathering powers under Part XIB. For example, s. 151BU in Part XIB allows the ACCC to make a record-keeping rule (RKR) by written instrument and to require that carriers and carriage service providers (CSPs) comply with it. The rule may specify what records are kept, how reports are prepared and when these reports are to be provided.

The Minister for Broadband, Communications and the Digital Economy (the Minister) can require that the ACCC monitor and report on various aspects of competition within the industry. The Minister has also given the ACCC the responsibility of monitoring Telstra's compliance with its retail price controls, which are determined by ministerial determination.

5.1 Ongoing and new monitoring and reporting activities

5.1.1 Telstra's compliance with its retail price controls

Since 1989 Telstra has been subject to arrangements that limit its ability to increase its retail prices. The controls are set by government through ministerial determination and were most recently amended in January 2006.¹³⁹

The central framework of Telstra's retail price control arrangements consists of a series of price caps that apply to specified 'baskets of services'.

The first basket of services consists of local calls, trunk (national long-distance and fixed-to-mobile (FTM)) calls, international calls and line rentals. This basket is subject to a price cap of consumer price index (CPI) – CPI per cent. This means that Telstra is entitled to change the individual prices of the services within the basket as it wishes, but the aggregate price of all services in the basket must not increase in nominal terms.

The second and third baskets consist of Telstra's most basic line rental product—offered to residential customers and to business customers respectively. In 2008–09 these baskets were subject to a price cap of CPI – 0 per cent.

The fourth basket consists of connection services and is subject to an annual price cap of CPI – 0 per cent.

¹³⁹ The retail price controls are currently being reviewed. In January 2010 the ACCC commenced a public inquiry. It has completed this inquiry and submitted its report to the Minister for Broadband, Communications and the Digital Economy.

All public switched telephone network (PSTN) services are subject to the price caps, except those supplied to large business customers on individual contracts.

Telstra is able to claim credits for investing to improve the quality of the services within the baskets, which are offset against actual price movements. Also, if Telstra prices below the maximum level permissible, the difference may be carried forward as a credit into the next price cap period.

The price control arrangements also require the charges for Telstra's most basic line rental product and untimed local calls to be broadly similar for metropolitan and non-metropolitan end-users, and Telstra to comply with other specific pricing and notification requirements.

Under the retail price control arrangements, the ACCC is responsible for developing a methodology to measure price changes, assess the accuracy and completeness of Telstra's report, and report annually to the Minister on the adequacy of Telstra's compliance. On 10 December 2009 the ACCC submitted to the Minister's office its assessment of Telstra's compliance with the retail price controls for 2008–09.

5.1.2 Communications infrastructure

To facilitate the improvement of regulatory decisions, the ACCC requires industry data on telecommunications network infrastructure. This information is intended to assist the ACCC in administering its regulatory functions under Part XIC of the TPA.

The ACCC's strategic review of the regulation of fixed network services indicated that a consistent and coherent database of communications infrastructure was needed to further inform the effectiveness and timeliness of future regulatory processes.

In 2007–08 the ACCC established a communications infrastructure audit on the nature and location (including take-up in certain circumstances) of competing communications infrastructure by issuing two RKR:

- The Telstra Customer Access Network (CAN) RKR requires Telstra to disclose key information about the unconditioned local loop service (ULLS), the line sharing service (LSS) and its own voice and digital subscriber line (DSL) services, disaggregated on an exchange service area (ESA) basis for each quarter. The information is used for a number of purposes (such as assessing Telstra's applications for exemption from standard access obligations (SAOs)) and summary data has been published periodically from September 2007.
- The Audit of Telecommunications Infrastructure Assets RKR requires 22 specified carriers to report on the locations of their core network and CAN infrastructure. The first response was received from industry in 2008. The purpose of this RKR is to provide the ACCC with a consistent and coherent database to inform regulatory decisions. In 2008–09, 17 responses were received from industry.

The ACCC has taken a flexible and cooperative approach to the reporting requirements and, while some trade-offs have been made to minimise the reporting burden, there remains the capacity with this information to continue to improve the efficiency and effectiveness of regulatory decisions. In addition the ACCC used the RKR data it collected as a key input to *Communications infrastructure and services*

availability in Australia 2008, published in cooperation with the Australian Communications and Media Authority (ACMA).¹⁴⁰

5.1.3 Accounting separation

Accounting separation provides for separate accounts for wholesale and retail operations of a business. This can increase competition by making the comparative treatment of the retail business and wholesale customers more transparent.

In 2002 the government made provision for an enhanced accounting separation of Telstra's wholesale and retail operations with the passage of the *Telecommunications Competition Act 2002*. In accordance with this Act, the Minister made a direction instructing the ACCC to issue RKR's requiring Telstra to provide reports on:

- current costs in addition to historical costs under the telecommunications industry accounting framework
- imputation analysis comparing Telstra's retail prices and the costs faced by access seekers in buying core telecommunications services—local carriage service (LCS), public switched telephone network originating/terminating access (PSTN OTA) and ULLS—from Telstra, to indicate whether margins are sufficient to allow efficient firms to compete against Telstra in the retail market
- key performance indicators on non-price terms and conditions (NPTC) that compare Telstra's customer service performance in specified retail and wholesale supplied services.

The ACCC reports on a six-monthly basis for current cost accounting and on a quarterly basis for imputation and NPTC.

5.1.4 Annual report on retail telecommunications prices

Under Division 12 in Part XIB of the TPA, the ACCC is required to monitor and report to the Minister annually on charges paid by end-users of telecommunications services.

In December 2004 the ACCC issued an RKR specifying that information for this purpose be provided by telecommunications carriers and CSPs. Carriers and CSPs reporting under this RKR are Telstra, Optus, AAPT, Primus, Hutchison, Vodafone, Virgin Mobile, and iiNet. In 2008–09, these carriers and CSPs supplied additional data necessary to commence reporting on various internet data services.

The RKR was also revised in 2008–09 because of market changes. TPG Telecom (formerly SP Telemedia) and Unwired Australia were added to the list of carriers and CSPs required to report under the revised RKR.

The ACCC's report on telecommunications prices is published jointly with this report each year.

¹⁴⁰ ACMA and ACCC, *Communications infrastructure and services availability in Australia 2008*.

5.1.5 Bundling RKR

As a result of concerns about the effects of bundling on competition in telecommunications markets, the ACCC has from 2003 monitored the bundling arrangements that Telstra offers to its residential customers.

Telstra supplies quarterly reports on its bundling arrangements, including data on the number of customers on each arrangement, associated revenue and the discounts given.

The data shows a continuation in the upward trend in residential customers choosing to bundle additional services with fixed-line voice services. However, there has been a decrease in the number of residential customers using fixed voice services. The data shows that during 2008–09, the number of Telstra residential customers choosing to bundle additional services with fixed-line voice services declined by 1.5 per cent. Further, there has been a 10.6 per cent decrease in the number of residential customers using Telstra’s fixed voice services. The ACCC also notes the large increase (95.3 per cent) in bundling wireless broadband services with other services and an increase (35.2 per cent) in bundling mobile services with other services.¹⁴¹

5.1.6 Access to Telstra Exchange Facilities RKR

In July 2008, following public consultation, the ACCC issued an RKR requiring Telstra to keep and retain records and give reports to the ACCC relating to access to Telstra exchange facilities.

This RKR was issued because of concerns that Telstra was refusing access to exchanges by access seekers seeking to interconnect with the ULLS and LSS, on the basis that some exchanges were ‘capped’ due to insufficient space. In addition, access seekers had complained to the ACCC that they were experiencing delays in gaining access to exchange buildings to install digital subscriber line access multiplexer (DSLAM) equipment.

The RKR requires Telstra to give monthly reports to the ACCC about decisions to cap and uncap exchanges and the amount of space in an exchange reserved by Telstra for its own anticipated future requirements. The RKR also requires Telstra to report on the details of queued access seekers, their position in the queue and any progress in the queue.

The ACCC considers that the RKR provides independent oversight of Telstra’s processes to ensure that access is not unreasonably denied. The RKR is also intended to provide confidence to access seekers investing in competitive DSLAM infrastructure about the accuracy of Telstra’s processes.

On 5 December 2008, the ACCC issued a disclosure direction to Telstra to publicly disclose certain RKR information. The information to be disclosed includes both:

- the number of capped exchanges
- the types of construction works required to access specific exchanges, and the queued access seekers at exchanges.

¹⁴¹ Telstra, *Residential bundled services report—June 2008*, section 3; Telstra, *Residential bundled services report—June 2009*, section 3.

The first public report was made available in February 2009. A total of five reports were made available during the reporting period to 30 June 2009. The initial report showed that at the end of December 2009 four exchanges were both racks and main distribution frame (MDF) capped, 21 exchanges were racks capped only and one was MDF capped only. At the end of June 2009, this had reduced to three racks and MDF capped, 18 racks capped and one MDF capped. Subsequent to the reporting period, a further seven reports have been made publicly available.

5.1.7 Tariff filing

Tariff filing refers to the provision of certain information about changes in prices. The ACCC's tariff filing powers can be divided into two distinct parts:

- general telecommunications tariff filing (Part XIB, Division 4 of the TPA)
- Telstra-specific tariff filing (Part XIB, Division 5 of the TPA).

Tariff filing directions under Part XIB, Division 4 of the TPA

If the ACCC is satisfied that a carrier or CSP has a substantial degree of market power in a telecommunications market, the ACCC may direct it under Part XIB Division 4 of the TPA 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.

In 2008–09 the ACCC did not issue any tariff filing directions under this division.

Tariff filing by Telstra under Part XIB, Division 5 of the TPA

Part XIB, Division 5 requires Telstra to provide the ACCC with a written statement setting out any proposed pricing changes for a basic carriage service (BCS) seven days before the change occurs. BCSs allow for communication between two or more distinct places, supplied by fixed-line or satellite-based facilities, but do not include the supply of customer equipment.

A strict interpretation of Division 5 would require Telstra to provide complete details of all offerings, both standard and individualised (non-standard), along with all variations. To reduce the administrative burden of this requirement on both the ACCC and Telstra, the ACCC and Telstra agreed that relevant information would be provided only for those BCSs identified by the ACCC as assisting it in detecting potential anti-competitive behaviour.

Under the agreement:

- Telstra is to provide its standard form of agreement on a weekly basis, along with a list of all amendments (additions, variations, and withdrawals) that have taken place during that week
- Telstra is to provide a monthly summary report of any non-standard form of agreement entered into for that calendar month
- Telstra is to brief the ACCC if it has introduced, varied or withdrawn an offer for a BCS and considers that change to be significant

- the ACCC may also request a briefing to obtain information about any amendments to Telstra's standard form of agreement or about a non-standard form of agreement.

Exemptions exist for particular BCSs when:

- there is a limited likelihood of anti-competitive conduct
- information is already available to the ACCC through the access regime
- information is otherwise available from the previous tariff filing agreement between Telstra and AUSTEL.

During 2008–09 Telstra complied with the requirements to give the ACCC tariff-filing information.

5.1.8 Media content monitoring

The ACCC recognises that access to compelling content may be a critical factor in developing a viable business case in existing and emerging media markets. During 2008–09 the ACCC continued to monitor developments in relation to the acquisition of exclusive rights for compelling content in new media sectors and free-to-air and subscription television sectors. The ACCC will continue to monitor developments across all media sectors to ensure effective competition is not foreclosed by anti-competitive conduct.

6 Access to telecommunications network services

This chapter outlines how the Australian Competition and Consumer Commission (ACCC) regulates access to telecommunications networks, including the declaration of telecommunication services, the arbitration of access disputes and the development of pricing principles for particular services.

Part XIC of the *Trade Practices Act 1974* (TPA) establishes the industry-specific access regime for the telecommunications industry. The primary objective of Part XIC is to promote the long-term interests of end-users (LTIE). Under the TPA the LTIE is achieved by:

- promoting competition in telecommunication markets
- achieving any-to-any connectivity (ensuring communication between end-users of different networks)
- encouraging the economically efficient use of, and investment in:
 - infrastructure by which listed services are supplied
 - any other infrastructure by which listed services are, or are likely to become, capable of being supplied.

The Part XIC access regime only applies to services that are declared. Declaration is the process of determining whether a service should be subject to access regulation. Services can only be declared after the ACCC has conducted a public inquiry.

Once a service is declared, the access provider is subject to standard access obligations (SAOs) requiring it to provide the service, on request, to the access seeker. The access provider must take all reasonable steps to ensure that the technical and operational quality of the service is equivalent to the service it provides to itself.

While the terms and conditions of access are not specified in the TPA, it does provide three ways in which they can be determined:

- by commercial negotiation between the access provider and access seeker
- through the ACCC setting the access terms and conditions in an arbitration determination—but only if commercial negotiation is unsuccessful and a dispute is notified to the ACCC
- by the access provider lodging an undertaking with the ACCC that will determine the terms and conditions of access, and the ACCC accepting that undertaking.

The ACCC encourages industry participants to negotiate and settle their own disputes, and will continue to do so.

6.1 Public inquiries into the declaration of telecommunications services

Telecommunications services—declaration provisions: A guide to the declaration provisions of Part XIC of the Trade Practices Act explains the ACCC's approach to declarations, including the matters that it must consider and how it will consider them. The guide also contains a section dealing with procedural issues, such as the public inquiry process.

The following is an outline of the public inquiries that the ACCC has conducted in the relevant period.

6.1.1 Fixed services review—declaration inquiry and variation inquiry for ULLS service description

In November 2008 the ACCC commenced a public inquiry to review the declarations for six fixed-line services which were to expire on 31 July 2009 (Fixed Services Review): unconditioned local loop service (ULLS), line sharing service (LSS), public switched telephone network originating access (PSTN OA), public switched telephone network terminating access (PSTN TA), wholesale line rental (WLR) and local carriage service (LCS).

The ACCC decided to combine the Fixed Services Review with an inquiry regarding a possible variation of the ULLS service description. The variation inquiry first arose in March 2007 after the ACCC received a request from the G9 consortium of companies to vary the ULLS service description. The G9 consortium wished to ensure that sub-loop access would fall within the definition of the declared ULLS in the event of a national broadband network (NBN) roll-out. However, the inquiry was suspended during April 2008 as the ACCC considered that, in the absence of the proposed NBN roll-out, there was no pressing need to vary the ULLS service description.

On 15 July 2009, the ACCC issued a final decision:

- Extending the declaration of each of the services for a period of five years to 31 July 2014. The ACCC considered that this would provide regulatory certainty regarding the access arrangements that apply to the fixed-line services, particularly given ongoing developments in the industry such as the government's NBN proposal.
- Not to vary the ULLS service description. The ACCC considered that varying the service description at that time would create unnecessary regulatory uncertainty in the absence of an NBN roll-out. It was not satisfied that such a variation would promote the LTIE.

6.1.2 Review of the DDAS and ISDN declarations

In March 2009 the ACCC commenced a review of the digital data access service (DDAS)¹⁴² and the integrated services digital network (ISDN)¹⁴³ declarations in regional areas. These were due to expire on

¹⁴² The DDAS is an access service for the domestic carriage of data. The service can combine the use of a customer access line with management to ensure high-quality data transmission.

¹⁴³ The ISDN is used for the carriage of information such as voice, data, high-quality sound, text, still images and video over the PSTN. It is a digital communications service which uses the same copper wire lines used for standard telephone services.

30 June 2009. The purpose of the inquiry was to consider whether the declarations should be remade, extended, revoked, varied or allowed to expire. The review followed a decision by the ACCC in June 2008 to extend the declarations for 12 months in order to allow time for access seekers to transition to newer technologies.

On 18 June 2009 the ACCC issued its final report in relation to this inquiry, deciding to allow the declaration of the DDAS and ISDN services in regional areas to expire on 30 June 2009. The ACCC has for a number of years regarded the services as outdated legacy technologies which are increasingly being withdrawn and replaced by other services offering higher capacity and faster speeds. The ACCC previously ceased to regulate the DDAS and ISDN services in CBD and metropolitan areas in 2006.

6.1.3 Review of the MTAS declaration

In December 2008 the ACCC conducted a declaration inquiry into the mobile terminating access service (MTAS).¹⁴⁴ The purpose of the review was to determine whether the MTAS declaration should be remade, extended, revoked, varied or allowed to expire.

On 28 May 2009 the ACCC released its final report extending the existing MTAS declaration for a period of five years to 30 June 2014. The ACCC views mobile call termination as an essential bottleneck facility which gives mobile network operators exclusive control of access to end-users on their own network. The ACCC considers continued regulation as having a positive impact for consumers by continuing to promote competition in the market for retail mobile services.

6.1.4 Review of the DTCS declaration

In November 2008 the ACCC commenced a declaration inquiry into the domestic transmission capacity service (DTCS).¹⁴⁵

On 19 March 2009 the ACCC released its final report from that inquiry. The ACCC decided to:

- vary the declaration to exclude the capital–regional transmission routes and exchange service areas (ESAs) granted exemption in November 2008 (see section 6.2.3 below)
- extend the varied declaration for a period of five years to 31 March 2014.

6.1.5 Variation of the DTCS service description

In November 2009 the ACCC initiated a review of the DTCS service description. The DTCS declaration covers all transmission routes (except those excluded by the ACCC due to the existence of effective competition) and is intended to cover all transmission interface protocols commonly used over the Australian transmission network.

¹⁴⁴ The MTAS is an essential wholesale input used by providers of calls from both fixed-line and mobile networks in order to complete (terminate) calls to mobile subscribers connected to other networks. Under current commercial arrangements, the owner of the network which originates a call to a mobile network will generally purchase the MTAS from the owner of the network which completes the call.

¹⁴⁵ The DTCS is a generic service for the carriage of voice, data or other communications using wideband or broadband carriage.

The purpose of the review is to consider whether the DTCS service description should specifically include Ethernet interface protocols. Ethernet interface protocols are currently widely used in the Australian telecommunications network and are likely to be common in future roll-outs and upgrades.

The ACCC released a discussion paper on 27 November 2009 and expected to receive submissions from stakeholders and interested parties in early 2010. A decision has not yet been made.

6.2 Exemptions from declarations

The SAOs require, among other things, an access provider to supply a declared service to an access seeker if requested. Under s. 152AT of the TPA, a carrier or carriage service provider (CSP) may apply to the ACCC for a written order exempting it from the SAOs that apply to a declared service.¹⁴⁶

The ACCC must not grant an exemption order unless it is satisfied that the making of the order will promote the LTIE. If the ACCC believes that an order made on an application for an exemption is likely to materially affect the interests of a person, the ACCC must publish the application and invite submissions on whether the application should be accepted.

The ACCC received 12 exemption applications from Telstra in the second half of 2007. The exemption applications covered the LCS, WLR, PSTN OA and DTCS, as well as the supply of certain regulated services to Optus in areas where Optus had deployed its hybrid fibre coaxial (HFC) network. The ACCC released final decisions for each of Telstra's exemption applications during 2008. Some of those decisions were reviewed by the Australian Competition Tribunal (ACT). The ACT's decisions on the WLR and LCS exemption applications were further reviewed by the Full Federal Court.

The final results of Telstra's 12 exemption applications (that is, the final orders made by either the ACCC or the ACT) are summarised in Table 6.1.

¹⁴⁶ The TPA also enables an access provider (or a potential access provider) to apply for an exemption from the SAOs before an investment in a service is made or that service becomes an active declared service.

Table 6.1 Summary of Telstra exemption application outcomes

Exemption application(s)	Final result (ACCC or ACT decision)	Date exemption takes effect
WLR		
Two exemption applications for 387 metropolitan ESAs	Partial exemption for 248 ESAs (subject to conditions and limitations), and a class exemption of the same scope	December 2010*
LCS		
Two exemption applications for 387 metropolitan ESAs	Partial exemption for 248 ESAs (subject to conditions and limitations), and a class exemption of the same scope	December 2010*
PSTN OA		
One exemption application for 17 CBD ESAs	Exemption granted for 17 CBD ESAs, and a class exemption of the same scope	October 2008
One exemption application for 387 metropolitan ESAs	Partial exemption for 248 ESAs (subject to conditions and limitations), and a class exemption of the same scope	December 2010*
DTCS		
Exemption applications (five in total) for:		
20 capital–regional routes	Partial exemption for 9 capital–regional routes, and a class exemption of the same scope.	November 2009
inter-exchange (IE) for 17 CBD ESAs for all bandwidths	Partial exemption for 16 ESAs, and a class exemption of the same scope	November 2009
tail-end transmission for 17 CBD ESAs for all bandwidths	No exemption granted	N/A
IE transmission for 115 metropolitan ESAs for all bandwidths	Partial exemption for 72 ESAs, and a class exemption of the same scope	November 2009
tail-end transmission for 128 metropolitan ESAs for all bandwidths up to 2 Mbps	No exemption granted	N/A
Optus HCF exemption	No exemption granted	N/A
One exemption application for the supply by Telstra of ULLS, LSS, LCS, WLR and PSTN OA to Optus in any customer premises within 75 metres of Optus’s currently deployed HFC cable network in Sydney, Melbourne and Brisbane		

Note: *These exemptions will come into effect gradually after the specified date on an ESA-by-ESA basis only after all the conditions and limitations specified in the exemption orders for that specific ESA are satisfied.

6.2.1 Telstra application for partial exemption from LCS and WLR regulations

In July and October 2007, Telstra applied for exemption from the SAOs in relation to the supply of LCS and WLR in 387 ESAs across metropolitan Australia.¹⁴⁷

In August 2008 the ACCC decided to grant Telstra exemptions in 248 ESAs, subject to a number of conditions and limitations. The ACCC recognised that determining the precise subset of ESAs where ULLS-based entry and effective competition in fixed voice services is likely to occur upon granting exemptions was a finely balanced process. This process took into account the actual competition within each ESA, as well as the potential for increased competition. The ACCC determined the exemptions would apply to ESAs which have either (or both):

- 14 000 or more addressable SIOs
- four or more ULLS-based competitors (including Telstra).

The ACCC also made class exemptions exempting any other provider from the application of the SAOs in relation to supply of the WLR and LCS in the same areas.¹⁴⁸

On 12 September 2008, Chime applied to the ACT under s. 152AV of the TPA for a review of the ACCC's exemption orders. In its 22 December 2008 decision, the ACT set aside the ACCC's WLR and LCS exemption orders on the grounds that entry by one or more firms does not by itself establish that the incumbent is restrained, or is likely to be constrained, by the competitive process in the future.

On 13 January 2009 Telstra commenced proceedings for judicial review of the ACT's decision. The Full Federal Court handed down its decision on 11 March 2009 setting aside the ACT's decision and remitting Telstra's exemption applications back to the ACT for further consideration and determination according to law.

On 27 May 2009, the ACT determined that exemption orders would be made, subject to several conditions and limitations. After allowing consultation on the terms of the conditions and limitations, the ACT finalised the exemption orders on 24 August 2009. Like the ACCC's original exemption orders, the ACT's orders address a number of common hurdles faced by access seekers in accessing Telstra's underlying network using the ULLS.

Under the ACT's orders, whether the exemption applies in a particular area will depend on a number of factors, including the number of Telstra's competitors already using the ULLS in that ESA, and their market share.

The ACCC will publish a list of geographic areas where the exemptions apply on its website and update it twice a year.

The exemptions will come into effect in December 2010.

147 The LCS is a wholesale local carriage service that allows access seekers to resell local calls to end-users. The WLR involves the provision of a basic line rental service that allows an end-user to connect to the PSTN.

148 On 18 November 2009, the ACCC released a final decision to vary the class exemptions for the WLR, LCS and PSTN OA services. The variations ensure the class exemptions are consistent with the individual exemption orders handed down by the ACT.

6.2.2 Telstra application for partial exemption from PSTN OA access regulations

In October 2007 Telstra applied for exemption from the SAOs in respect of its supply of the PSTN OA¹⁴⁹ services in 17 ESAs located in CBD areas and 387 ESAs across metropolitan Australia (the same metropolitan ESAs as in the WLR and LCS exemption applications).

In October 2008 the ACCC granted Telstra exemptions from its obligations to supply PSTN OA in the 17 CBD ESAs (CBD exemption) and 248 metropolitan ESAs (metropolitan exemption), subject to a number of conditions and limitations.

The metropolitan exemption was consistent with the ACCC's August 2008 decision to grant Telstra conditional exemptions in respect of the WLR and the LCS (discussed in section 6.2.1 above). The WLR, LCS and PSTN OA services are commonly acquired together to supply a full suite of fixed voice services to consumers (line rental, long distance, fixed to mobile, and local calls).

As with the WLR and LCS exemptions granted to Telstra, the subset of ESAs determined by the ACCC to be subject to the metropolitan exemption were those in which there are 14 000 or more addressable services in operation (SIOs) and/or four or more ULLS-based competitors (including Telstra). The ACCC considered that there was a sufficient presence of alternative infrastructure in these ESAs capable of providing voice services at the wholesale and retail service levels.

The ACCC also made a class exemption of the same scope.¹⁵⁰

On 19 November 2008, AAPT, Agile, Chime, Macquarie, PowerTel and Primus applied to the ACT pursuant to s. 152AV of the TPA for review of the ACCC's decision to make the exemption orders.

On 24 August 2009, the ACT issued its reasons to parties in the PSTN OA proceedings proposing to vary the PSTN OA metropolitan exemption to be on the same terms as the ACT's WLR and LCS exemptions. The ACT also affirmed the ACCC's PSTN OA CBD exemption, except for minor variations to the commencement and expiry dates.

After brief consultation on the conditions attached to the exemptions, the ACT issued supplementary reasons and finalised the PSTN OA exemptions on 9 September 2009.

The CBD exemption came into effect on 29 October 2009. The PSTN OA metropolitan exemption order will come into effect in December 2010.

Similar to the ACT's WLR and LCS exemption orders, various factors determine whether the ACT's PSTN OA metropolitan exemption order applies in a particular ESA. These factors include the number of Telstra's competitors already using the ULLS in that ESA, as well as their market share. The ACCC will publish a list of ESAs where the exemption order applies on its website and update that list twice a year.

¹⁴⁹ The PSTN OA service allows access seekers to buy the carriage of telephone calls from a calling end-user to a point of interconnection with the access seeker's network. The service allows telecommunications companies to provide services such as national long-distance calls, international calls and calls between fixed and mobile networks.

¹⁵⁰ On 18 November 2009, the ACCC released a final decision to vary the class exemptions for the WLR, LCS and PSTN OA services. The variations ensure the class exemptions are consistent with the individual exemption orders handed down by the ACT.

The ACT's PSTN OA metropolitan exemption orders address a number of common hurdles faced by access seekers in accessing Telstra's network using the ULLS.

6.2.3 Telstra application for partial exemption from DTCS regulations

In August 2007 Telstra applied for an exemption from the SAOs in relation to supply of the DTCS¹⁵¹ on 20 capital-regional routes.

In October 2007 the ACCC released a discussion paper and sought submissions from interested parties on key issues. Four submissions were received in response.

In December 2007, Telstra lodged four additional applications for exemption from the SAOs for:

- IE transmission in 17 CBD ESAs for all declared bandwidths
- tail-end transmission in 17 CBD ESAs for all declared bandwidths
- IE transmission in 115 metropolitan ESAs or regional centre ESAs for all bandwidths
- tail-end transmission in 128 metropolitan ESAs for bandwidths up to 2 Mbps.

Given the commonality of subject matter, the ACCC issued a combined draft decision on all of Telstra's DTCS exemption applications in September 2008. In November 2008, after a public consultation, the ACCC published its final decision to:

- exempt nine of the 20 capital-regional routes applied for
- exempt IE transmission for 72 of the 115 metropolitan ESAs applied for
- exempt IE transmission for 16 Band 1 CBD ESAs applied for
- refuse Telstra's application for exemption from the SAOs in respect of the supply of tail-end transmission in metropolitan and CBD ESAs.

The ACCC made a class exemption of the same scope.

6.2.4 Telstra application for exemption from fixed service regulations in Optus cable areas

In December 2007 Telstra applied for exemption from the SAOs for the supply of certain regulated fixed-line services (ULLS, LSS, LCS, WLR, and PSTN OA) to Optus in a defined geographic area—specifically, any customer premises within 75 metres of Optus's currently deployed HFC cable network in Sydney, Melbourne and Brisbane.

In November 2008 the ACCC issued a final decision rejecting Telstra's exemption application. It was not satisfied that granting Telstra the exemption would promote the LTIE. The ACCC had two major concerns with the application:

¹⁵¹ The DTCS is a generic service that can be used for the carriage of voice, data or other communications using wideband or broadband carriage. Carriers and CSPs can use transmission capacity to set up their own networks for aggregated voice or data channels or for integrated data traffic.

- The singling-out of a particular competitor would represent a discriminatory access policy that would be likely to discourage investment and undermine the potential for efficient facilities-based competition in the telecommunications industry.
- Telstra's strong position in pay TV services and control over content, through its interest in Foxtel, would be likely to limit any possible competitive benefits from granting the exemption.

On 3 December 2008 Telstra applied to the ACT pursuant to s. 152AV of the TPA for review of the ACCC's decision to reject the exemption application. On 22 May 2009, the ACT decided to affirm the ACCC's original decision.

6.3 Access undertakings

Part XIC includes a mechanism allowing an access provider to give voluntary access undertakings on the supply of declared services. Undertakings must set out the terms and conditions under which the access provider undertakes to comply with the particular SAOs.

The TPA also allows for an access provider or potential access provider to submit a special access undertaking (SAU) for the same purpose, where the investment in a service has yet to be made or that service has not yet become an active declared service.

Under Part XIC the ACCC is required to accept or reject an undertaking following a consultation process. If the undertaking is accepted, the ACCC must apply a relevant undertaking in an access dispute, providing some certainty to both access providers and access seekers.

In assessing access undertakings, the ACCC must be satisfied that:

- the undertaking is consistent with the SAOs outlined in the TPA
- the terms and conditions of access are reasonable, as defined in s.152 AH of the TPA.

6.3.1 Telstra ULLS monthly charge undertaking

On 3 March 2008 Telstra lodged an ordinary access undertaking relating to its supply of the ULLS. This undertaking superseded a previous ULLS undertaking that had been lodged by Telstra on 21 December 2007.

The undertaking proposed a \$30 monthly charge for the ULLS in Band 2 ESAs and was supported by the Telstra efficient access (TEA) model and other material. Telstra proposed that the undertaking would operate until 21 December 2010.

On 29 April 2009, the ACCC released a final decision rejecting the undertaking. Telstra appealed the decision on 13 May 2009 to the ACT. The hearing was held on 24–28 August 2009. On 10 May 2010 the ACT handed down its decision affirming the ACCC's decision to reject Telstra's ULLS undertaking.¹⁵²

¹⁵² *Application by Telstra Corporation Ltd ABN 33 051 775 556 [2010] ACompT 1.*

6.4 Access disputes

As part of the ACCC's role in regulating access in the telecommunications industry, it has arbitration powers under Part XIC enabling it to issue directions, conduct hearings and make determinations to resolve access disputes. Under Part XIC the ACCC must undertake arbitrations if notified of an access dispute, but only after private negotiations, mediation and/or conciliation fail. When the ACCC accepts a relevant access undertaking, the terms and conditions of the undertaking must be applied in resolving the dispute. If there is no undertaking relevant to the dispute, then the ACCC may determine the appropriate terms and conditions within the arbitration process.

Before a dispute is referred to the ACCC for arbitration:

- a carrier or CSP must control the supply of a declared service
- one or more SAOs must apply to the carrier or the CSP in relation to the declared service
- parties must have attempted to reach a commercial agreement about the terms and conditions of the obligations or any other aspect of the declared service.

6.4.1 Arbitration of disputes over access to fixed-line network services

Table 6.2 outlines the fixed-line network access disputes that were arbitrated during 2008–09.

Table 6.2 Fixed-line network access disputes arbitrated, 2008–09

Service	At 1 July 2008	New disputes lodged during 2008–09	Disputes finalised during 2008–09	At 30 June 2009
ULLS	15	5	2	18
LSS	11	1	2	10
DTCS	0	0	0	0
LCS	2	0	0	2
WLR	2	0	0	2
PSTN OTA	4	0	4	0
Total	34	6	8	32

As shown in Table 6.2, the ACCC was arbitrating 34 access disputes concerning fixed-line services at the start of the reporting period. A further six access disputes were notified to the ACCC for arbitration during the reporting period, five of which related to the ULLS.

A total of eight fixed-line access disputes were finalised during the year by parties agreeing to withdraw the dispute.

Three additional access disputes were notified between July 2009 and December 2009 (that is, outside the time frame covered by table 6.2): one for WLR and two for LSS. One of those LSS access disputes was subsequently withdrawn in that period.

The scope of access terms raised for determination within these arbitrations continued to increase over 2008–09, to include various price and non-price terms of access.

6.4.2 Arbitration of disputes over access to the MTAS

Table 6.3 outlines the MTAS disputes that were arbitrated during 2008–09.

Table 6.3 MTAS disputes arbitrated during 2008–09

Service	At 1 July 2008	New disputes lodged during 2008–09	Disputes finalised during 2008–09	At 30 June 2009
MTAS	4	6	4	6

As shown in table 6.3, the ACCC received six new access disputes in 2008–09 concerning the MTAS, in addition to the four disputes being arbitrated at the commencement of the period. Four disputes were withdrawn after the parties successfully reached a commercial agreement.

From July 2009 to December 2009 (outside the time frame covered by table 6.3), two further MTAS disputes were notified to the ACCC, and four MTAS disputes were withdrawn due to the parties reaching a commercial agreement.

6.4.3 Interim outcomes

The ACCC is able to make an interim determination which sets access terms to apply during the arbitration process. An interim determination usually operates for 12 months or less, and may be extended for up to 12 months.

In 2008–09, the ACCC extended the operation of nine existing interim determinations for the LSS, and made four new interim determinations: one for WLR, one for LCS, and two for ULLS.

The ACCC also made an additional interim determination in the WLR dispute notified in July 2009.

6.4.4 Final outcomes

During 2008–09, the ACCC did not make any final determinations.

Telstra applied to the Federal Court for review of each of the final determinations that were made during 2007–08 in respect of the ULLS and LSS. On 17 July 2009 the Federal Court dismissed Telstra's applications.

Twelve access disputes were withdrawn during 2008–09. These related to PSTN originating/terminating access (PSTN OTA) (four); LSS (two); ULLS (two) and MTAS (four).

As mentioned in sections 6.4.1 and 6.4.2 above, since 30 June 2009 one LSS access dispute and four MTAS access arbitrations were finalised by the parties agreeing to withdraw the dispute.

6.4.5 Publications made

The ACCC may decide to publish an interim or final determination that it has made in an arbitration where it considers that doing so would be likely to facilitate the operation of Part XIC of the TPA. A statement of reasons for the determination may also be published.

Before publishing any materials, the ACCC must consider:

- any objections of the parties
- whether publication would be likely to promote competition in markets for listed carriage services
- whether publication would be likely to facilitate the operation of Part XIC
- any other matter that the ACCC considers relevant.

During 2008–09, the ACCC did not publish any interim or final determinations or statements of reasons.

Further details of the ACCC's arbitration function are available on the ACCC's website, including a listing of all notified disputes, new determinations made and copies of published determinations.

6.5 Pricing principles and indicative pricing

Following the declaration of a service, to the ACCC is required to develop and release pricing principles for that declared service, to inform the relevant market of its likely decisions in arbitrations. The ACCC is required to release the pricing principles as soon as practicable after a service is declared or varied. The pricing principles may also contain price-related terms and conditions (indicative prices) relating to access to the declared service. This provides greater certainty to access seekers and promotes the timely resolution of access disputes without having to refer them to the ACCC.

Changes to the legislation in December 2002 required that pricing principles be issued for each new declared service.

6.5.1 MTAS pricing principles and indicative prices

In March 2009 the ACCC issued final pricing principles for the MTAS, and set an indicative price for the MTAS of 9 cents per minute for the period 1 January 2009 to 31 December 2011. The ACCC had released draft pricing principles and indicative prices in November 2008 for consultation.

The final pricing principles continue to adopt a cost-based pricing approach based on a total service long-run incremental cost (TSLRIC+) framework. In formulating the indicative price for the MTAS the ACCC took into account the WIK mobile network cost model, international cost benchmarking, and carrier financial data captured under the regulatory accounting framework (RAF).

6.5.2 Fixed services review of pricing principles and indicative prices

The ACCC released its final pricing principles and indicative prices for six fixed-line services on 3 December 2009 (ULLS, LSS, PSTN OTA, LCS and WLR). This followed the release for consultation in August 2009 of draft pricing principles and proposed indicative prices.

The ACCC determined to continue the pricing principles and indicative prices set in 2008–09 for the fixed-line services until 31 December 2010. The ACCC concluded that rolling over 2008–09 pricing principles and indicative prices would provide certainty regarding access to regulated services in a period of significant regulatory and industry change, and is in the LTIE. In making this decision, the ACCC adopted TSLRIC+ as the pricing principle for the ULLS, LSS and PSTN OTA, and retail-minus-retail-costs as the pricing principle for the LCS and WLR services.

6.6 Development of models to estimate costs of providing services

During the reporting period, the ACCC commenced or progressed the development of three separate cost models in respect of the MTAS, fixed network services and the DTCS. These models will assist the ACCC in fulfilling its regulatory functions under Part XIC of the TPA. In particular, the models will assist the ACCC in assessing access undertakings, developing pricing principles and indicative prices, and arbitrating access disputes.

6.6.1 Mobile services cost model

The ACCC engaged WIK Consult GmbH in 2006 to develop a bottom-up TSLRIC+ model to estimate the cost of supplying mobile termination services (WIK cost model). The finalised WIK cost model was released by the ACCC in November 2007 and was last updated in August 2008.

6.6.2 Fixed network services cost model

The ACCC issued a request for tender in February 2007 for the provision of consultancy services to develop a bottom-up engineering-economics Australian fixed network services cost model. Analysys Consulting Limited (subcontracting Gibson Quai–AAS) was engaged to develop a model of the TSLRIC+ cost of providing services on the fixed telecommunications network in Australia.

Following consideration of parties' submissions to the consultation process which commenced in December 2008, a revised model was issued as part of the ACCC's consultation on fixed services pricing in August 2009.

6.6.3 Telecommunications transmission cost model

The ACCC released the final version of the telecommunications transmission cost model in April 2008. Since that time the ACCC has continued to update input parameters in the transmission cost model. The model is designed with the flexibility to calculate cost-based pricing for backhaul on any land-based (terrestrial) or undersea (submarine) telecommunications transmission route in Australia.

The ACCC intends to consult with industry in 2010 regarding the most appropriate approach to pricing the DTCS.

6.7 Telecommunications access code

Under s. 152BJ the ACCC is empowered to make a telecommunications access code. The ACCC did not consider that a code was required in 2008–09.

7 Activities under the Telecommunications Act

7.1 Operational separation of Telstra

A framework for the operational separation of Telstra was introduced on 1 January 2006 by Schedule 1, Part 8 of the *Telecommunications Act 1997* (Telco Act).

Operational separation is designed to address concerns that arise from Telstra's ownership of the infrastructure which other telecommunications companies need to access and interconnect with to provide services to consumers. It seeks to promote greater equivalence and transparency in Telstra's supply of certain designated wholesale services and to provide ongoing assurance that Telstra is not favouring its retail business units by implicitly supplying services to itself at prices that are unjustifiably lower or of higher quality than those offered to downstream competitors.

The Telco Act requires Telstra to prepare and give to the Minister for Broadband, Communications and the Digital Economy (the Minister) for approval a draft operational separation plan (OSP), which must be directed towards the achievement of the aim and objectives of operational separation. As such, the implementation of the operational separation of Telstra is primarily the Minister's responsibility. The Minister approved Telstra's OSP on 23 June 2006.

The role of the Australian Competition and Consumer Commission (ACCC) is to monitor and report on Telstra's compliance with the OSP. If Telstra fails to comply with any aspect of the OSP, ministerial intervention is required before the ACCC can take direct action pursuant to the OSP framework to prevent discrimination continuing—by either amending the OSP or by enforcing the provisions of an existing OSP. Accordingly, the OSP can be seen as a 'two strikes' policy, given that the ACCC can only take enforcement action when a 'rectification plan' has been contravened and that a rectification plan will only exist where the Minister has first required Telstra to prepare such a plan and has accepted it.

In 2008–09, the ACCC continued to monitor implementation of the OSP, including the price equivalence framework which was established under it. This framework is used to test the revenue margin resulting from changes in wholesale and/or retail prices as a guide to identifying possible anti-competitive pricing conduct by Telstra. It is intended for this framework to provide competitors, and the public, with an assurance that Telstra's pricing of services is fair. It is also intended to provide Telstra with increased certainty that its pricing decisions do not contravene the *Trade Practices Act 1974* (TPA).

A statutory review of the operational separation arrangements was scheduled to be undertaken by the Minister by 30 June 2009. However, this has been overtaken by a more fundamental consideration of structural reform issues as part of the government's *National Broadband Network: Regulatory reform for 21st century broadband review*.

7.2 Number portability

Number portability allows end-users to change their service provider within specified number ranges (for example, the number range used to provide mobile services) and retain the same number.

Part 22, Division 2 of the Telco Act requires the Australian Communications and Media Authority (ACMA) to develop a numbering plan outlining the allocation and use of numbers in connection with the supply of carriage services.

Under the Telco Act, the ACCC has statutory powers to direct the ACMA on number portability. The ACMA cannot insert rules about number portability in the Telecommunications Numbering Plan 1997 unless directed to do so by the ACCC, and any rules the ACMA includes in the numbering plan on number portability must be consistent with any directions by the ACCC.

The numbering plan is for the numbering of carriage services in Australia and the allocation and use of numbers in connection with the supply of such services.

During 2008–09, the ACCC directed the ACMA to revoke its 2003 Direction on premium rate number portability.

7.3 Industry codes

In mid-2008 the ACCC became involved in discussions with the Communications Alliance and other stakeholders around the development of a mobile premium services industry code. The code was intended to replace the previous mobile premium services industry scheme.

The ACCC made a submission to the public consultation process on the draft code in late 2008. In early 2009, the ACCC liaised further with the ACMA, which was considering whether to register the code under the Telco Act. The final Mobile Premium Services Code was registered by the ACMA on 14 May 2009 and came into effect on 1 July 2009.

During 2008–09, ACCC staff continued to observe and in some cases participate in a number of panels and working committees convened by the Communications Alliance, including the following:

- Consumer Issues Reference Panel—responsible for overseeing and advising on consumer issues
- Network Reference Panel—responsible for overseeing and advising on network (i.e. public switched telephone network (PSTN), IP, mobile and broadband) related matters
- Operations Reference Panel—responsible for overseeing and advising on inter-operator issues
- VDSL2 Working Committee (WC07)—responsible for revising the ULLS (unconditioned local loop service) Network Deployment Code (ACIF C559:2006) and the related consumer equipment standard to incorporate second-generation very high-speed digital subscriber line (VDSL2) technology
- Working Group 36—responsible for ULLS ordering, provisioning and customer transfer code review
- Working Committee 22—Mobile Number Portability Code revision.

Further details of this work are available from the Communications Alliance website, www.commsalliance.com.au.

7.4 Access disputes under the Telecommunications Act

In addition to its role as an arbitrator of access disputes under Part XIC of the TPA, the ACCC arbitrates disputes under the Telco Act. Disputes covered by the Telco Act relate to matters such as:

- access to telecommunications transmission towers and underground facilities
- access to supplementary facilities (such as exchanges)
- provision of preselection and number portability.

During 2008–09, one access dispute was lodged under the Telco Act.

7.5 International rules of conduct

Division 3 of Part 20 of the Telco Act sets out a mechanism for the government to deal with unacceptable conduct by international operators.

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

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

The Minister is empowered by Part 20 of the Telco Act to make rules of conduct to prevent, mitigate or remedy any unacceptable conduct by an international telecommunications operator.

On 18 June 1997 the Minister introduced 'Rules of conduct about dealings with international telecommunications operators,' No. 1 of 1997, to take effect on 1 July 1997. The rules of conduct:

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

During 2008–09 the ACCC did not conduct any investigations into unacceptable conduct by an international carrier.

8 Activities under the Radiocommunications Act

8.1 Digital radio

Digital radio services began in several state capital cities in 2009.

Legislative arrangements provide for the Australian Communications and Media Authority (ACMA) to allocate eight digital radio multiplex licences to joint venture companies representing commercial and community broadcasters. The joint venture companies are responsible for multiplexing together the separate streams of content from individual broadcasters and transmitting a combined stream to end-users in each licence area. An access regime, administered by the Australian Competition and Consumer Commission (ACCC), was introduced to ensure that broadcasters have access to the multiplex transmission service on reasonable terms and conditions.

On 3 October 2008 the eight multiplex licensees submitted access undertakings to the ACCC that set out the terms and conditions on which they proposed to provide access to commercial and community broadcasters. All eight undertakings were identical. The undertakings and supporting submission were submitted on behalf of the multiplex licensees by commercial radio industry body Commercial Radio Australia.

On 18 March 2009 the ACCC decided not to accept the undertakings, based on its assessment against the decision-making criteria. The criteria included whether the undertaking unduly restricted competition and whether the methodology for determining prices was reasonable.

The ACCC also consulted on a modified undertaking that it proposed would become the undertaking in relation to each multiplex licence. The modified undertaking was based on the undertakings submitted by the multiplex licensees, but with modifications to meet the requirements under the decision-making criteria. These modifications included preventing access seekers from opting out of an ACCC-approved undertaking and a provision to ensure that the multiplex licensees could not recover more than the efficient costs of providing the service.

On 22 April 2009, after having considered views in submissions, the ACCC determined that the ACCC-modified undertakings were to apply to the digital radio multiplex licensees.

8.2 Digital television

The *Radiocommunications Act 1992* allows the ACMA to issue two licences for new digital television services (known as Channel A and Channel B), subject to government policy.

Channel A may be used to provide datacasting, open (that is, free-to-air) narrowcasting and community broadcasting services to domestic digital TV receivers (in-home receivers). Commercial TV broadcasting licensees and national broadcasters may not control Channel A.

Channel B may be used for those services that can be provided by Channel A, as well as other services including mobile TV. It cannot be used to provide certain services such as commercial broadcasting services or subscription TV broadcasting services to domestic digital TV receivers. Commercial TV broadcasting licensees and national broadcasters cannot control Channel B if it is to be used to provide services to domestic digital TV receivers.

Under the Radiocommunications Act, parties must lodge an access undertaking that has been accepted by the ACCC to be eligible to participate in any allocation process for Channel B. Parties have not to date proposed any access undertakings to the ACCC.

In May 2008 the Minister for Broadband, Communications and the Digital Economy (the Minister), Senator Stephen Conroy, announced that the launch of new digital television services would be delayed until a detailed technical and policy review was undertaken.

In November 2009 the Minister announced that Channel A would be used for the delivery of community television broadcasting services. This effectively forecloses the use of Channel A for other services.

Appendix A Types of voice services

Fixed voice services

The key feature of fixed voice is that it requires a dedicated line to a fixed location on a network. Telstra's ubiquitous copper network is the most common platform over which fixed voice is provided. Optus also provides fixed voice services over its hybrid fibre coaxial (HFC) network. This network passes approximately 2.2 million premises in Sydney, Melbourne and Brisbane, but Optus states that it is currently only capable of providing services to 1.4 million of these. While Telstra also owns an HFC network, passing 2.5 million premises, it does not operate fixed voice services over this infrastructure.

Fixed voice is also capable of being provided over a wireless local loop. A wireless local loop connects subscribers to the public switched telephone network (PSTN) using a radiofrequency signal as a substitute for the wire line for all or part of the distance between the exchange and the customer's premises. Fixed wireless networks are more commonly associated with supplying broadband services than with telephony.

Satellite and optical fibre are also alternative methods of supplying fixed voice services, although in Australia there has been limited deployment of these networks. In Australia Telstra's fixed copper network remains the dominant method by which fixed voice services are supplied to end-users.

Access option

There are two regulated access methods by which competitors can participate in the fixed voice service area. They are:

- purchasing the local carriage service (LCS) and wholesale line rental (WLR) from Telstra (or another wholesaling carrier) and on-selling to end-users.¹⁵³ To provide additional calling functions to consumers beyond local calls, such as domestic long distance, international and fixed to mobile (FTM), the access seeking competitor is likely to require access to at least Telstra's regulated PSTN originating/terminating access (PSTN OTA)
- purchasing access to Telstra's unconditioned local loop service (ULLS), which provides access to Telstra's copper customer access network (CAN), and then combining it with their own switching equipment.

The first method is a pure resale business, while the second method involves some investment by the carrier in its own equipment to enable service provision.

¹⁵³ It is, of course, important to note that competitors can, and often do, purchase wholesale voice services from carriers other than Telstra. For more information see Australian Competition and Consumer Commission (ACCC), 'Telstra's local carriage service and wholesale line rental exemption applications—final decision and class exemption', August 2008.

Mobile voice

During the greater part of 2008–09, four major carriers in Australia¹⁵⁴—Telstra, Optus, Vodafone and Hutchison—owned mobile network infrastructure. Competitors could compete in the mobile service area by:

- investing in their own mobile network infrastructure
- becoming a mobile virtual network operator (MVNO)
- reselling carrier services.

An MVNO differs from a reseller because, in addition to purchasing wholesale mobile capacity from a mobile network operator, it provides a technical support layer that replicates the mobile network operator's mobile switching centre. This gives the MVNO more control over the services it provides to customers.

Voice over internet protocol

Voice over internet protocol (VoIP) refers to the encoding of voice communication into internet protocol (IP) packets for transmission over data networks.¹⁵⁵

Broadly speaking, there are three main types of VoIP services available to consumers. These are:

- Soft switching and the ULLS—in this case, the access seeker uses the normal voice band of the copper line to connect a plain old telephone service (POTS) phone to a multi-service access node (MSAN) that can terminate both digital subscriber line (DSL) and voice-band traffic. The voice service is either handled by a soft switch in an IP network or sent via a voice gateway to a traditional voice switch ('POTS emulation').
- Internet access device (IAD) and broadband access—in this case, the end-user connects a POTS phone to an IAD that converts the voice call to VoIP at the end-user premises. The call is transferred to the exchange and the access seeker's equipment over the broadband connection. The voice service can be handled by a soft switch in an IP network but will require a voice gateway to interconnect with the PSTN ('carrier-grade VoIP'—e.g. a service provided by iiNet).
- VoIP and broadband access—the access seeker provides a voice service through a full IP solution over the broadband connection, using either a VoIP handset or software on a computer to emulate a telephone. Again, the voice service can be handled by a soft switch in an IP network but will require a voice gateway to interconnect with the PSTN ('application layer VoIP'—e.g. a service provided by Skype or engin).

¹⁵⁴ In May 2009 the ACCC announced that it would not oppose the proposed merger of Vodafone and Hutchison's Australian mobile operations.

¹⁵⁵ The discussion focuses on the substitutability of 'carrier grade' VoIP voice rather than soft-client VoIP (i.e. application-layer-only VoIP services such as those provided by Skype or engin), as the ACCC does not consider soft-client VoIP a potential substitute at this stage.

The physical and technical characteristics of a carrier-grade VoIP product can be quite different to those of traditional PSTN voice. The ACCC notes that:

- the quality of service of VoIP can vary greatly between VoIP service providers, and often VoIP has lower quality of service than PSTN voice services¹⁵⁶
- on the whole VoIP services do not facilitate connection to emergency services numbers
- VoIP services are not available during power outages
- some VoIP services may require the customer to acquire a VoIP-specific phone at the customer end
- to acquire VoIP services an end-user must also acquire a broadband service (unlike traditional PSTN voice)
- VoIP can provide end-users with greater functionality than PSTN voice through the additional features of the service—e.g. ‘simultaneous ring’, ‘sequential ring’ and ‘music on hold’.¹⁵⁷

¹⁵⁶ Note that broadband providers that operate their own network can have some control over the transport of their VoIP traffic and therefore have some control over the quality of their service. See also Australian Communications and Media Authority, *The Australian VoIP market—The supply and take-up of VoIP in Australia*, December 2007, p. 19.

¹⁵⁷ ‘Simultaneous ring’ refers to being able to have multiple phones ring simultaneously when calls are received on one phone number. For example, calls to an end-user’s desk phone could also ring their mobile phone. ‘Sequential ring’ refers to being able to telephone up to three locations (in addition to the base location) in the sequence an end user supplies, for a specified number of rings. See iinet, ‘VOIP service features—call options’, <http://www.iinet.net.au/voip/call-features.html>, accessed 14 April 2010.

Appendix B Types of internet platforms

There are a range of technology platforms capable of supplying the internet to Australian households. Consumers in many parts of the country have the additional benefit of choosing between platforms when selecting their internet service provider (ISP). In other parts of the country, technical limitations and the absence of alternative platforms mean that some consumers have a more limited choice of technology when purchasing their internet service.

Dial-up

The first technology platform used to access the internet on a widespread basis was dial-up. Dial-up uses the voice band frequency to transmit internet data over the copper network. Shortcomings of dial-up include the inability for end-users to use the one copper line for both fixed voice and internet services at the same time, and the fact that its headline data download transmission rate of a theoretical maximum 56 Kbps is much slower than currently available broadband internet offerings.

The latest internet activity survey released by the Australian Bureau of Statistics (ABS) noted that, as of June 2009, dial-up connections account for 13 per cent of the total internet connections in Australia. This is a significant downward trend from March 2007 and June 2008, when dial-up connections represented 33 and 22 per cent of all internet connections respectively.¹⁵⁸

Broadband

Broadband enables subscribers to have faster, more efficient connections to the internet. Broadband is a relative term: it refers to a variety of internet access speeds. However, a common feature of broadband internet—regardless of access technology—is that it offers faster theoretical maximum speeds than those offered by dial-up and can be used concurrently with a voice service. Given the technical limitations of many broadband technologies, it is possible that some end-users—depending on their selected access technology—may not experience a faster service using a broadband connection than that offered by dial-up.

Digital subscriber line

Digital subscriber line (DSL), and more particularly asymmetric digital subscriber line (ADSL), is the most common form of broadband internet available in Australia. DSL or ADSL, like dial-up, uses the copper network to provide an internet service. DSL operates at distinctly separate and much higher frequencies than voice services, and therefore operates independently of and simultaneously with the provision of voice services over the same copper pair.

¹⁵⁸ ABS, Internet Activity Survey—June 2008, 8153.0, September 2008, March 2010.

The copper network over which DSL and dial-up internet are transmitted is owned by Telstra. One way a competitor ISP can provide these services is by negotiating a commercial agreement with Telstra to resell its wholesale DSL offerings. In the second half of 2008, for the first time, Telstra agreed to provide wholesale ADSL2+ services to other telecommunications providers.¹⁵⁹

An alternative to reselling Telstra's wholesale internet offerings is for an ISP to purchase access to Telstra's regulated unbundled services. An ISP can purchase regulated wholesale access to either Telstra's unconditioned local loop service (ULLS) or line sharing service (LSS) to provide customers with DSL. Both these regulated services require access seekers to invest in additional infrastructure—generally digital subscriber line access multiplexers (DSLAMs)—to provide customers with DSL broadband. ULLS provides the ISP access to an unconditioned copper line over Telstra's copper network, which the ISP is able to interconnect with its own DSLAM equipment and/or fixed voice service equipment. LSS, on the other hand, provides the ISP with access to only the higher frequency part of the copper line to provision a DSL broadband service, while Telstra continues to provide (wholesale or retail) voice service over the same copper line.

DSL continued to be the dominant broadband service (57 per cent of total broadband connections¹⁶⁰) in Australia in 2008–09. This corresponds to the take-up of unbundled services by access seekers for the same period.¹⁶¹

Hybrid fibre coaxial

Hybrid fibre coaxial (HFC) services currently available in Australia can provide bandwidth of 30 Mbps, and new technology, including data over cable service interface specification 3 (DOCSIS 3), could potentially offer theoretical peak network speeds of up to 100 Mbps.

As noted in section 2.2.1, there are two major HFC networks in Australia, operated by Telstra and Optus, providing a combined coverage of 2.6 million homes. Telstra and Optus offer pay television and broadband services on HFC, and Optus also offers a voice service.

Neighbourhood Cable uses its HFC network to provide broadband, pay television and voice services in Ballarat, Geelong and Mildura. TransACT acquired Neighbourhood Cable in January 2008.

159 People Telecom, 'People Telecom—Australia's first service provider of Telstra ADSL2+ broadband', media release, 8 August 2008. Pacnet, 'Pacnet launches ADSL2+ service in Australia', media release, 23 September 2008. Westnet, 'Westnet to switch on massive ADSL2+ presence', media release, 29 October 2008. Internode, 'ADSL2+ now available at more than 1400 exchanges', media release, 17 December 2008.

160 ABS, Internet Activity Survey—June 2008, 8153.0, September 2008, March 2010.

161 The take-up of unbundled access lines increased by 412 000 to 950 000 over the year to June 2008 and had further increased to 1.1 million by 31 December 2008. See Telstra Customer Access Network Record-Keeping Rule (CAN RKR) data, available on the Australian Competition and Consumer Commission (ACCC) website.

Fibre

TransACT operates a fibre-to-the-node network in the Australian Capital Territory and Queanbeyan and, in total, offers services to over 90 000 householders.¹⁶²

Wireless broadband

In 2008-09 there were two platforms of wireless broadband available to Australian consumers. The first, fixed wireless, uses an air interface as an alternative to other access media (such as copper or fibre) to connect a broadband service. The second, mobile wireless, connects broadband customers using a third-generation mobile communications (3G) mobile phone network.

The capabilities of wireless technologies depend in part on spectrum allocations. Spectrum is a technically complex subject with many considerations. However, there are some general factors that govern how spectrum can influence the signalling strength and capacity of a wireless service.

The allocated spectrum frequency determines the signal coverage capability of a service. In general, lower spectrum allocations increase the coverage of a service from base stations. Alternatively, services operating on higher spectrum have lower signal coverage. Higher spectrum frequencies are also more dependent on line-of-sight requirements and have greater difficulty passing through buildings than lower frequency spectrum.

Given these features of spectrum, current available allocations of spectrum at lower frequencies are much scarcer than spectrum at higher frequencies—and spectrum itself is a scarce resource. While the bandwidth of a service is not dependent on a particular spectrum frequency, a sufficient allocation within a spectrum frequency range is necessary to supply high bandwidth to end-users. Therefore, service providers (without allocated spectrum) seeking to provide a wireless service with wide coverage per base station and large bandwidth capacity for end-users have the problem of scarce available bandwidth at lower spectrum frequencies.

Directional antennas are a means of ameliorating the coverage limitations of wireless signals. In general, a higher spectrum frequency requires a smaller directional antenna to strengthen a signal transmission. Therefore, services operating over higher spectrum, with the assistance of a directional antenna, may provide a fixed point-to-point data service—but offer less appropriate transmission for roaming mobile services.

As of 30 June 2008, there were 225 companies providing fixed wireless broadband services in Australia, with three-quarters providing services to rural areas (the majority of these in regional Queensland).¹⁶³

Mobile wireless 3G networks are designed to provide both voice and data services to end-users and differ from second-generation global system for mobile communications (GSM) networks in their ability

¹⁶² See TransACT website, <http://www.transact.com.au/about/ourcompany.aspx>, accessed 1 April 2010.

¹⁶³ Australian Communications and Media Authority (ACMA) and ACCC, *Communications infrastructure and service availability in Australia 2008*, p. 10.

to provide higher bandwidth data services, allowing consumers access to a broader range of content and applications.

3G networks are reported to provide coverage to 99 per cent of Australians and all 3G networks have been upgraded to high-speed packet access (HSPA).¹⁶⁴

Satellite broadband

A satellite is a wireless receiver/transmitter that operates in orbit around the earth and acts as a microwave relay station, receiving signals sent from a ground-based station, amplifying them and retransmitting them on a different frequency to another ground-based station. Satellites can be used for high-speed transmission of computer data, even where the most basic utilities—as in regional and remote locations—are lacking.

Satellite broadband services provide 100 per cent coverage of Australia's land area. In July 2008 there were about 48 satellite broadband service providers operating in Australia, with most being regional ISPs that resell satellite broadband to regional, rural and remote customers.¹⁶⁵

Satellite service connections are expensive as they require end-users (or government) to invest in a satellite dish to receive their internet service. The quality of a satellite is also affected by environmental factors—in particular cloud coverage—that reduce the efficiency of the service. The technical limitations of the service also mean that user upload rates are much slower than those offered on other technological platforms.

¹⁶⁴ *ibid.*, p. 5.

¹⁶⁵ *ibid.*, p. 13.

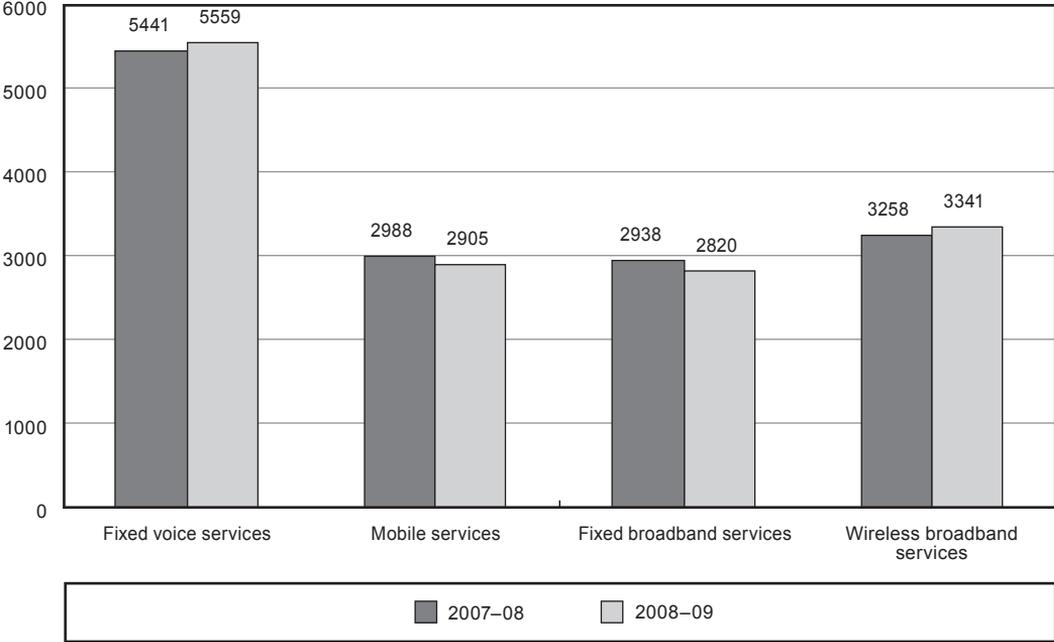
Appendix C HHI calculations

When looking at competition in a market, analysts and regulators look at structural features such as the number of sellers, their market shares, the service concentration levels and the barriers to entry and exit (such as the high sunk costs traditionally associated with communications services).

Changes in concentration levels over time can reveal the frequency of new entry and provide insight into the ability of new entrants and smaller competitors to attract custom and expand. The Herfindahl-Hirschman Index (HHI) is a metric used to estimate the level of concentration of markets, as well as changes in the concentration of markets as a result of a merger. The HHI is calculated by adding the sum of the squares of the market share of each firm in a particular market.

As set out in section 7.14 of the Australian Competition and Consumer Commission’s (ACCC’s) *Merger guidelines 2008*, when assessing market concentration in a proposed merger, the ACCC will take into account an industry segment’s HHI score, as a preliminary indicator of the likelihood that the merger will raise competition concerns requiring more extensive analysis. Section 7.14 notes that the ACCC will generally be less likely to identify horizontal competition concerns where the post-merger HHI score is less than 2000.¹⁶⁶

Figure C1 Concentration levels by HHI for retail fixed voice, fixed broadband and mobile services, 2007–08 to 2008–09



Sources: Division 12 Record-Keeping Rule (RKR); Telstra Customer Access Network (CAN) RKR.

¹⁶⁶ ACCC, *Merger guidelines 2008*, section 7.14.

Figure C1 shows that all telecommunications sectors in 2007–08 and 2008–9 had an HHI score in excess of 2000, and so all raised preliminary competition concerns.

Changes in the prices paid for telecommunications services in Australia, 2008–09

Report to the Minister for Broadband, Communications and the Digital Economy

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Key results

Average real prices for all telecommunications services decreased by 6.1 per cent in 2008–09.

- Average real prices continued to decrease in 2008–09:
 - fixed-line services decreased by 34.1 per cent since 1997–98
 - mobile services decreased by 49.2 per cent since 1997–98
 - internet services decreased by 10.5 per cent since 2006–07.

Average real prices for public switched telephone network (PSTN) fixed-line services decreased by 2.6 per cent in 2008–09.

- Average real basic access prices increased by 1.1 per cent in 2008–09:
 - average basic access prices have increased by 71.8 per cent since 1997–98.
- Average real prices for local calls decreased by 2.5 per cent in 2008–09, continuing a trend:
 - average local call prices have decreased by 58.3 per cent since 1997–98.
- Average real prices for national long-distance calls decreased by 6.7 per cent in 2008–09:
 - average national long-distance prices have decreased by 54.7 per cent since 1997–98.
- Average real prices for international calls decreased by 3.9 per cent in 2008–09:
 - average international call prices have decreased by 73.6 per cent since 1997–98.
- Average real prices for fixed-to-mobile calls decreased by 6.8 per cent in 2008–09:
 - average fixed-to-mobile prices have decreased by 47 per cent since 1997–98.

Average real prices for mobile services decreased by 7.8 per cent in 2008–09.

- Average real prices for global system for mobiles (GSM) services fell by 10.8 per cent in 2008–09:
 - average GSM service prices have decreased by 45.7 per cent since 1997–98.
- Average real prices for third-generation mobile (3G) services decreased by 4.2 per cent in 2008–09:
 - average 3G service prices have decreased by 7.8 per cent since 2006–07.

Average real prices for internet services decreased by 4.6 per cent in 2008–09.

- Average real prices for dial-up services decreased by 13.8 per cent in 2008–09.
- Average real prices for digital subscriber line (DSL) broadband services decreased by 0.4 per cent in 2008–09.
- Average real prices for cable broadband services increased by 0.5 per cent in 2008–09.
- Average real prices for wireless broadband services decreased by 18.5 per cent in 2008–09.

1 Summary

The overall average price paid for telecommunications services decreased in real terms by 6.1 per cent in 2008–09. This price decline resulted from a decrease in the average real price paid by consumers for:

- mobile services (–4.5 percentage points contribution)
- fixed-line services (–1.1 percentage points contribution)
- internet services (–0.5 percentage points contribution).

PSTN fixed-line services

The average real price of public switched telephone network (PSTN) services decreased by 2.6 per cent in 2008–09. Basic access prices increased by 1.1 per cent in 2008–09, while the price of all other fixed-line call types decreased.

Despite an overall price decrease in the PSTN index of 34.1 per cent since 1997–98, the price of basic access has increased by 71.8 per cent. The decrease in the PSTN index is a result of decreases in average real prices of PSTN fixed-line call types more than offsetting increases in the price of basic access.

Residential and business consumers of PSTN fixed-line services continued to experience decreases in average real prices in 2008–09.

Mobile services

The average real prices of mobile services decreased by 7.8 per cent in 2008–09. The decrease in the mobile services index continued a trend of annual price declines since 2000–01. Consumers of third-generation mobile communications (3G) and global system for mobile communications (GSM) services have continued to experience decreases in average real prices in 2008–09.

Average real price decreases for 3G and GSM prepaid services were greater than the price decreases for post-paid services. The decreases in 2008–09 were due to price declines experienced across all customer expenditure groups (i.e., ‘very low’, ‘low’, ‘medium’, ‘high’ and ‘very high’),¹⁶⁷ and appear to be mainly due to changes made to the capped or ‘bucket’ plan offerings. These changes include a significant increase in the entitlements included ‘within the cap’ — in terms of the value of individual service entitlements or the introduction of entitlements to additional services such as international calls or, where supported, data services.

Prices for code division multiple access (CDMA) services were excluded from the mobile services index in 2008–09, due to these services being withdrawn.

¹⁶⁷ Very low user group: occasional consumers making 1–2 calls a week; low user group: occasional to regular consumers making 5–7 calls a week; average user group: regular to frequent consumers making 2 calls a day; high user group: frequent consumers making 4–5 calls a day; very high user group: very frequent consumers making 8–10 calls a day.

Internet services

In 2008–09, the average real price of internet services decreased by 4.6 per cent. The change in the internet services index was mainly due to a decrease in prices for dial-up and wireless internet services.

The internet services index included wireless internet for the first time in 2008–09.

Data in report

All price changes in the report are calculated using average 'real' prices. This is done by adjusting nominal prices for the effects of inflation using the Australian Bureau of Statistics consumer price index.

This report was developed with information collected from carriers using a combination of the current Division 12 Record-Keeping Rule and information informally requested from carriers by the Australian Competition and Consumer Commission (ACCC).

Table 1.1 Percentage changes in the PSTN services indexes by service and consumer group, 2008–09 and since base year*

	Residential		Business		Overall	
	2008–09	Base year	2008–09	Base year	2008–09	Base year
Basic access	-0.3	92.5	3.8	37.6	1.1	71.8
Local calls	-1.3	-58.0	-4.4	-58.6	-2.5	-58.3
National long-distance	-6.7	-51.5	-6.6	-60.0	-6.7	-54.7
International	-3.7	-71.8	-4.7	-78.2	-3.9	-73.6
Fixed-to-mobile	-7.9	-42.1	-5.5	-53.1	-6.8	-47.8
Overall	-3.1	-28.5	-1.7	-42.9	-2.6	-34.1

Note: *Base year is 1997–98.

Table 1.2 Percentage changes in the mobile services index by user group, 2008–09 and since base year*

	**Very low		Low		Average		High		Very High		All	
	2008–09	Base year	2008–09	Base year	2008–09	Base year	2008–09	Base year	2008–09	Base year	2008–09	Base year
GSM:												
post-paid	-7.0	-64.1	-5.3	-55.5	-5.0	-38.4	-7.6	-53.3	-8.3	-62.1	-7.4	-53.6
prepaid	-18.3	-69.1	-15.9	-43.1	-15.1	-41.8	-14.8	-39.8	-13.3	-36.1	-14.3	-45.6
All GSM											-10.8	-51.6
3G:												
post-paid	1.1	-6.6	1.2	-2.8	-4.7	-13.1	-1.5	-0.6	-5.1	-0.8	-3.3	-6.7
prepaid	-9.5	-5.6	-7.2	-6.4	-11.5	-17.5	-9.8	-16.6	-11.2	-20.7	-10.5	-17.0
All 3G											-4.2	-7.8
Overall											-7.9	-49.2

Notes:

* Base year for GSM post-paid is 1997–98; base year for GSM prepaid is 1998–99; base year for 3G is 2006–07.

** Very low user group: occasional consumers making 5–8 calls a week; low user group: occasional to regular consumers making 9–11 calls a week; average user group: regular to frequent consumers making 2–3 calls a day; high user group: frequent consumers making 4–5 calls a day; very high user group: very frequent consumers making 6–10 calls a day.

Table 1.3 Percentage changes in the internet services index by service type, 2007–08 to 2008–09

	2007–08	2008–09
Dial-up	-11.0	-13.8
DSL	-5.2	-0.4
Cable	-5.9	0.5
Wireless	n.a	-18.5
Overall	-6.2	-4.6

2 Purpose and structure of the report

2.1 Purpose of the report

The ACCC is required to report each year to the Minister for Broadband, Communications and the Digital Economy on prices paid by Australian consumers for telecommunications services.

The purpose of this report is to provide an indication of how average prices paid by consumers for prevailing telecommunications services changed during 2008–09, both on an overall basis and for particular services and groups of consumers (ACCC).

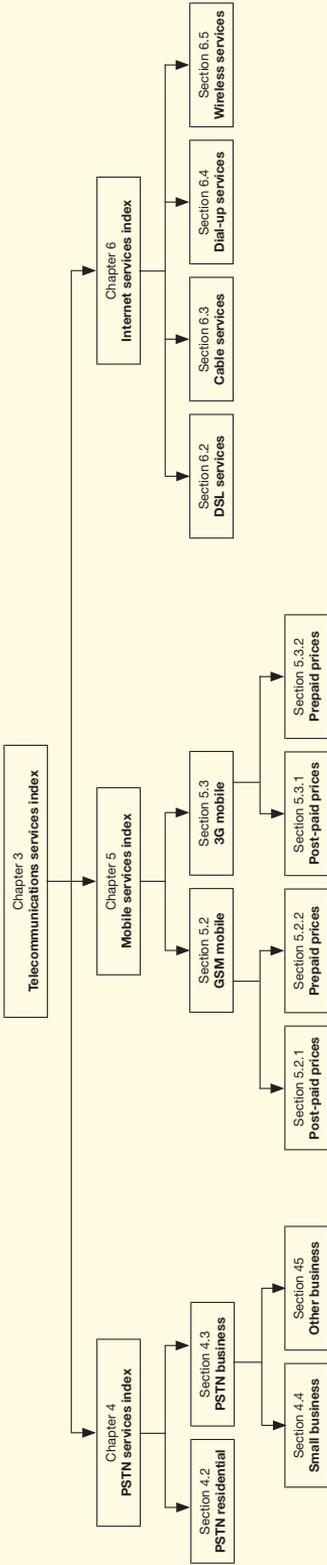
2.2 Structure of the report

Figure 2.1 shows the structure of the report and the telecommunications services index used to derive the price change estimates.

Aggregate results across all of the reported services are presented first in chapter 3, while subsequent chapters discuss changes in public switched telephone network (PSTN) services, mobile services and internet services. Data tables are presented in chapter 7 of the report. The methodology used to determine price changes is discussed in chapter 8.

Note: All reported prices and price changes are in real terms.

Figure 2.1 Structure of the report and telecommunications index



3 Telecommunications services index

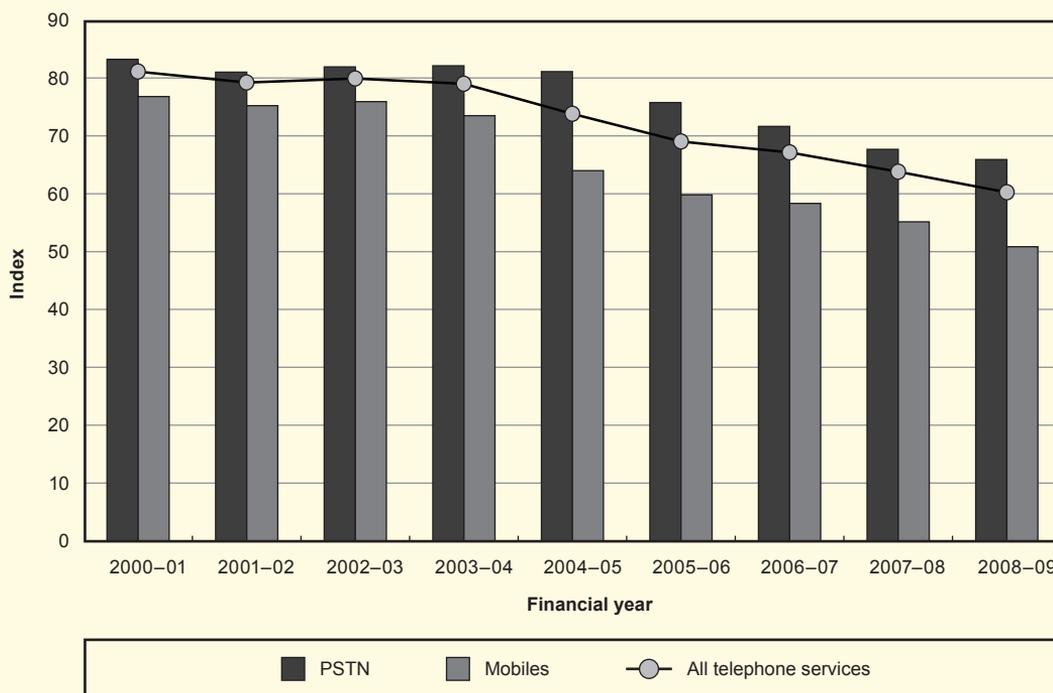
The telecommunications services index shows how average prices have changed for consumers across public switched telephone network (PSTN) services, mobile services and internet services.

Due to the introduction of an internet services index in 2007–08, and the inclusion of third-generation mobile communications (3G) services in the mobile services index, the telecommunications services index was rebased to 2006–07 prices. As a result, any comparison of the telecommunications services index or movements in price indexes or sub-indexes between years needs to be qualified.

3.1 Main changes

The average prices paid by consumers for telecommunications services in Australia decreased in 2008–09. This was due to a decrease in prices across PSTN fixed-line services, mobile services and internet services, a trend which has been evident since 2000–01.

Figure 3.1 PSTN services index and mobile services index, 2000–01 to 2008–09



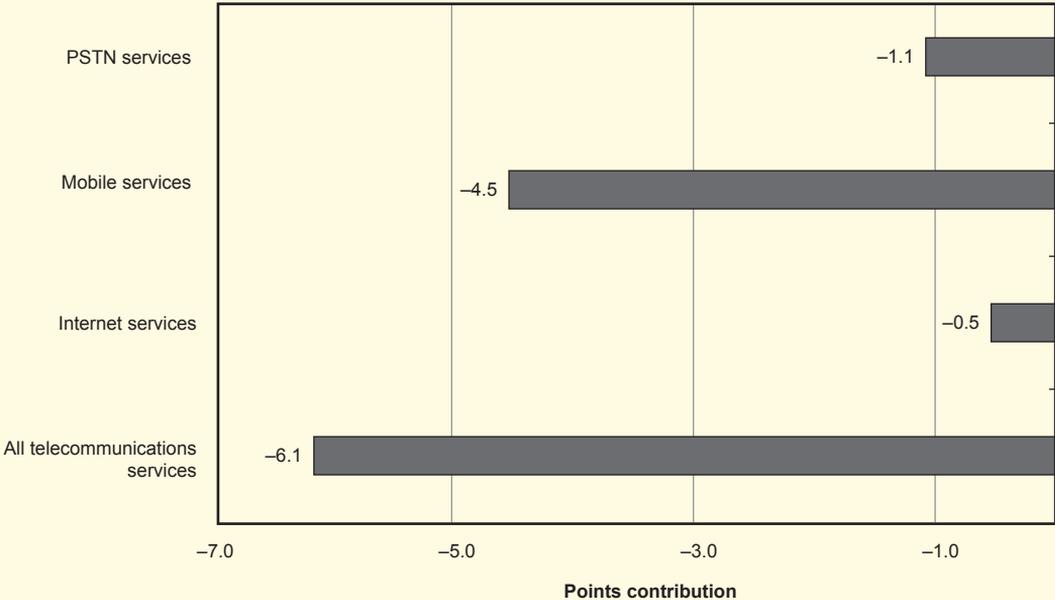
Source: Data from Telstra, AAPT (except 2008–09 data, which was excluded from the index), Primus, Vodafone, Hutchison, Virgin Mobile (until 2006–07), Optus (except 2001–02 data, which was excluded from the index) and One.Tel (until 2000–01).

Note: Base year is 1997–98.

In 2008–09, average prices of PSTN services and mobile services decreased. Since 2002–03 there have been annual price decreases for PSTN and mobile services.

Points contribution analysis indicates the percentage points that a component (in this case, a service) contributes to the change to an index in a particular year. That is, it shows how each service in the telecommunications services basket contributes to the movement in the telecommunications services index. In 2008–09, mobile services continued to make the largest contribution to the net decline in the telecommunications index.

Figure 3.2 Points contribution of the PSTN and mobile services indexes to the all telecommunications index, 2008–09



Note: The sum of the components' points contributions may not add up to the net index change, due to rounding.

4 PSTN services index

The public switched telephone network (PSTN) services index measures price changes in PSTN fixed-line services across all consumer groups (business and residential). The PSTN business index is calculated from 'small business' and 'other business' indexes.

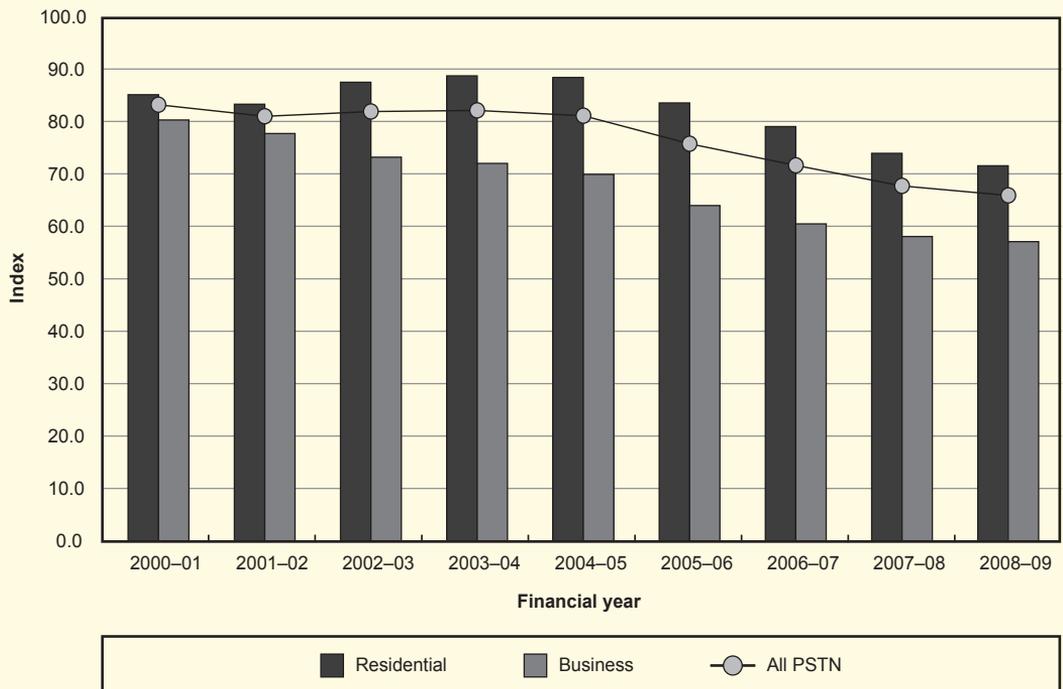
The ACCC derives the index by calculating the weighted average price change of each PSTN service in the study for business users and residential consumers. The price changes for each PSTN fixed-line service are then aggregated into a single PSTN services index.

4.1 Main changes

Average prices for PSTN fixed-line services continued to decrease in 2008–09. Since the base year of the index, the average price of a basket of PSTN services consumed by all consumers (residential and business) has decreased by 34.1 per cent.

In 2008–09, the continued fall in the PSTN services index was due to declining average prices for all PSTN call types (local, national, international and fixed-to-mobile). These price decreases were partially offset by an increase in the average basic access price.

Figure 4.1 PSTN services index by residential and business consumer group, 2000–01 to 2008–09



Source: Data from Telstra, AAPT, Primus, Optus (except 2001–02 data, which was excluded from the index) and One.Tel (until 2000–01).

Note: Base year is 1997–98.

Table 4.1 shows that, with the exception of basic access, prices for all PSTN service types have fallen annually since 2000–01.

Table 4.1 Year-on-year percentage changes in the PSTN services index by service type, 2000–01 to 2008–09

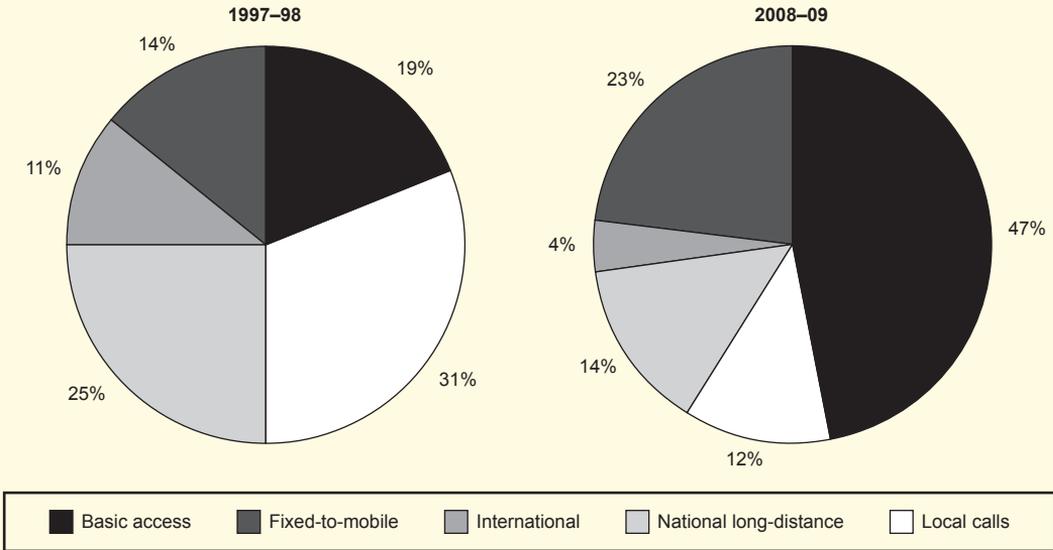
	2000–01	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09
Basic access	15.2	13.2	12.4	6.9	5.1	-2.4	-1.4	-1.6	1.1
Local calls	-17.9	-11.7	-3.8	-3.3	-7.9	-9.5	-6.7	-10.1	-2.5
National long-distance	-6.3	-8.7	-4.7	-1.9	-3.0	-6.9	-10.9	-10.9	-6.7
International	-17.2	-15.3	-5.8	-6.1	-4.1	-8.8	-4.8	-7.7	-3.9
Fixed-to-mobile	-6.2	-3.2	-2.4	-2.2	-3.9	-10.5	-7.6	-6.4	-6.8
PSTN services index	-5.8	-2.6	1.0	0.3	-1.3	-6.6	-5.4	-5.5	-2.6

Source: Data from Telstra, AAPT, Primus and Optus (except 2001–02 data, which was excluded from the index).

Note: Figures for 2006–07 have been revised based on updated data from reporting carriers.

Figure 4.2 shows that the proportion of total expenditure by consumers on each PSTN service changed over time. Since 1997–98, expenditure on basic access and fixed-to-mobile services as a proportion of total expenditure has increased significantly. In contrast, expenditure on local, national long-distance and international calls have all decreased as a proportion of the total.

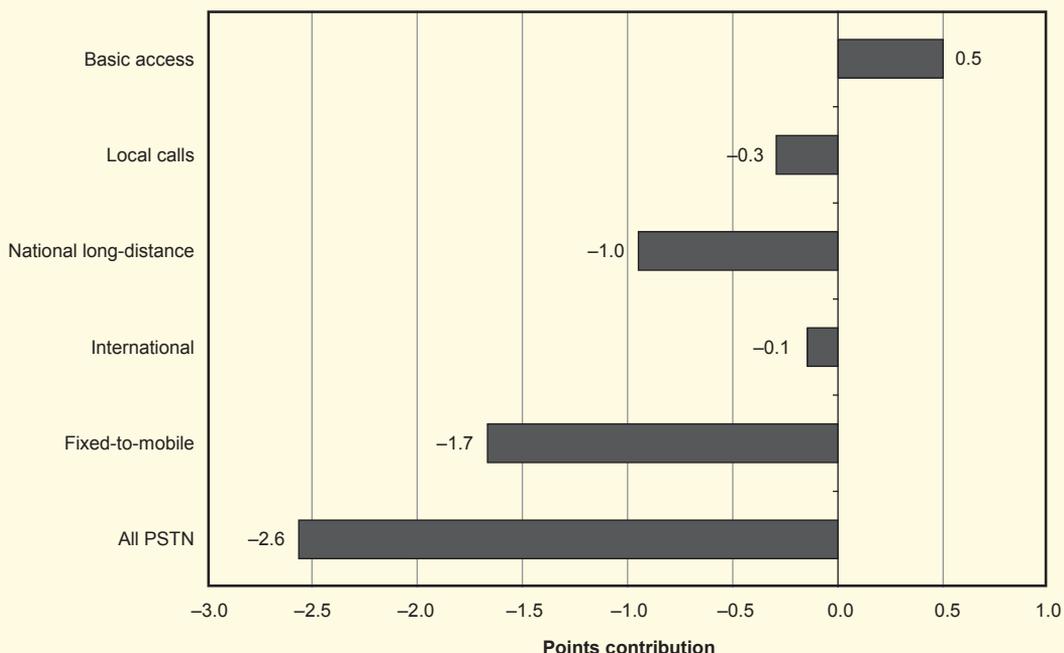
Figure 4.2 Comparison of share of total consumer PSTN expenditure by service, 1997–98 and 2008–09



Source: Data from Telstra, AAPT, Primus, Optus and One.Tel.

Fixed-to-mobile and national long-distance calls made the greatest contribution to the decrease in the PSTN services index in 2008–09.

Figure 4.3 Points contribution of PSTN services to the PSTN index, 2008–09



Source: Data from Telstra, Optus, AAPT and Primus.

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

In 2008–09, business and residential consumers experienced decreases in prices across all PSTN services. Business users have experienced consistent annual decreases in prices since 2000–01. In contrast, residential consumers experienced price increases in 2002–03 and 2003–04, despite an overall decline in the PSTN services index since 2000–01.

Table 4.2 Year-on-year percentage changes in the PSTN services index by consumer group, 2000–01 to 2008–09

	2000–01	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09
Residential	-3.5	-2.2	5.0	1.4	-0.4	-5.5	-5.4	-6.4	-3.1
Business	-9.2	-3.2	-5.8	-1.6	-2.9	-8.6	-5.5	-4.0	-1.7
PSTN services index	-5.8	-2.6	1.00	0.3	-1.3	-6.6	-5.4	-5.5	-2.6

Source: Data from Telstra, Optus, AAPT and Primus.

Note: Figures for 2006–07 have been revised based on updated data from reporting carriers.

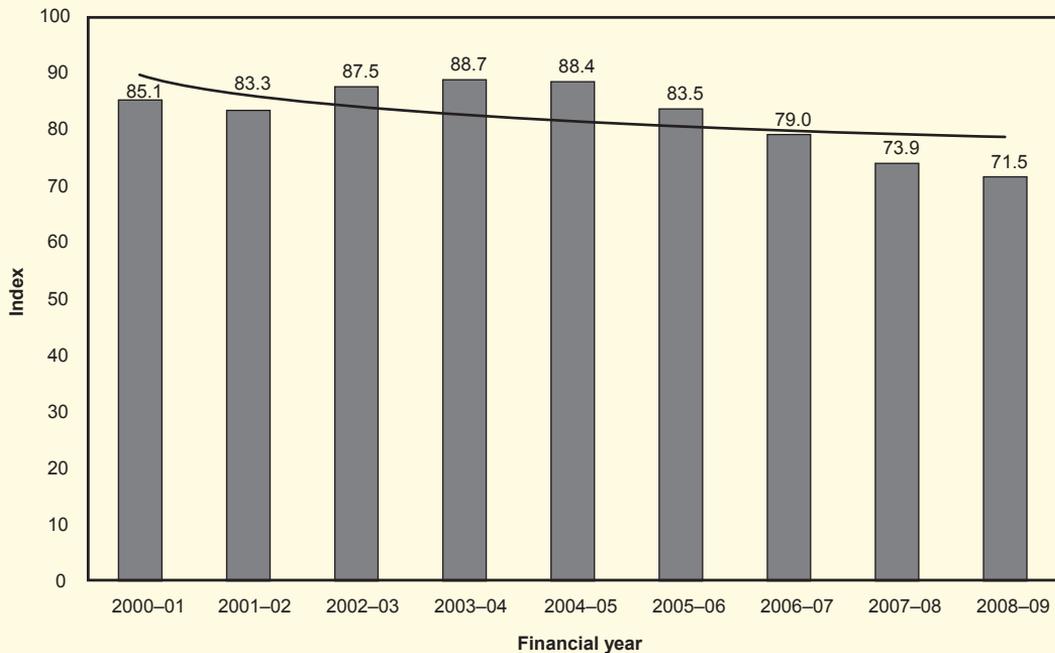
4.2 PSTN residential index

The PSTN residential services index is derived from five PSTN services—basic access, local calls, national long-distance calls, international calls and fixed-to-mobile calls.

4.2.1 Main changes

In 2008–09 the decrease in the average price of PSTN residential services continued a downward trend in prices since 2004–05.

Figure 4.4 Index for PSTN services for residential consumers, 2000–01 to 2008–09



Source: Data from Telstra, AAPT, Primus, Optus (except 2001–02 data, which was excluded from the index) and One.Tel (until 2000–01).

Note: Base year is 1997–98.

4.2.2 Price changes by PSTN service for residential consumers

In 2008–09, average prices for all PSTN residential services decreased, continuing a downward trend since 2004–05.

Table 4.3 Year-on-year percentage changes in the PSTN residential index, 2000–01 to 2008–09

	2000–01	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09
Basic access	16.1	15.0	16.6	7.5	7.4	-1.5	-0.1	-1.0	-0.3
Local calls	-16.4	-10.9	-1.2	-3.9	-0.1	-9.0	-7.6	-10.1	-1.3
National long-distance	-3.0	-8.5	-2.4	0.8	-1.7	-5.6	-13.0	-13.2	-6.7
International	-14.6	-15.6	-3.5	-6.2	-3.4	-8.4	-5.3	-9.2	-3.7
Fixed-to-mobile	-1.2	-4.8	5.0	0.1	-1.7	-9.3	-8.3	-10.9	-7.9
PSTN residential	-3.5	-2.2	5.0	1.4	-0.4	-5.5	-5.4	-6.4	-3.1

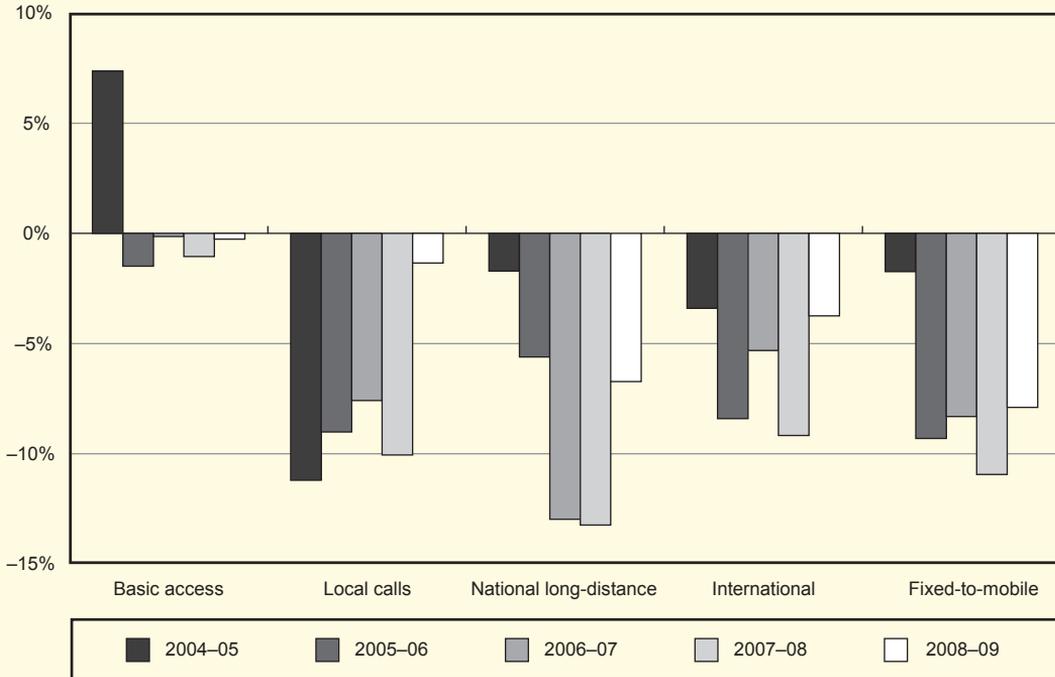
Source: Data from Telstra, AAPT, Primus and Optus (except 2001–02 data, which was excluded from the index).

Note: Figures for 2006–07 have been revised based on updated data from reporting carriers.

The average prices of residential national long-distance and fixed-to-mobile calls continued to decrease significantly compared with local calls and international calls. This could be attributed to the increased take-up of capped plans that provide certain calls for no additional charge, or discounting for customers who acquire bundled services.

The average price paid by residential consumers for basic access services does not exhibit the same price trend as PSTN fixed-line call services. While basic access prices increased for residential consumers up to and including 2004–05, there have been small annual decreases in these prices since that time. By comparison, the average prices for all PSTN call types have decreased annually since 2004–05.

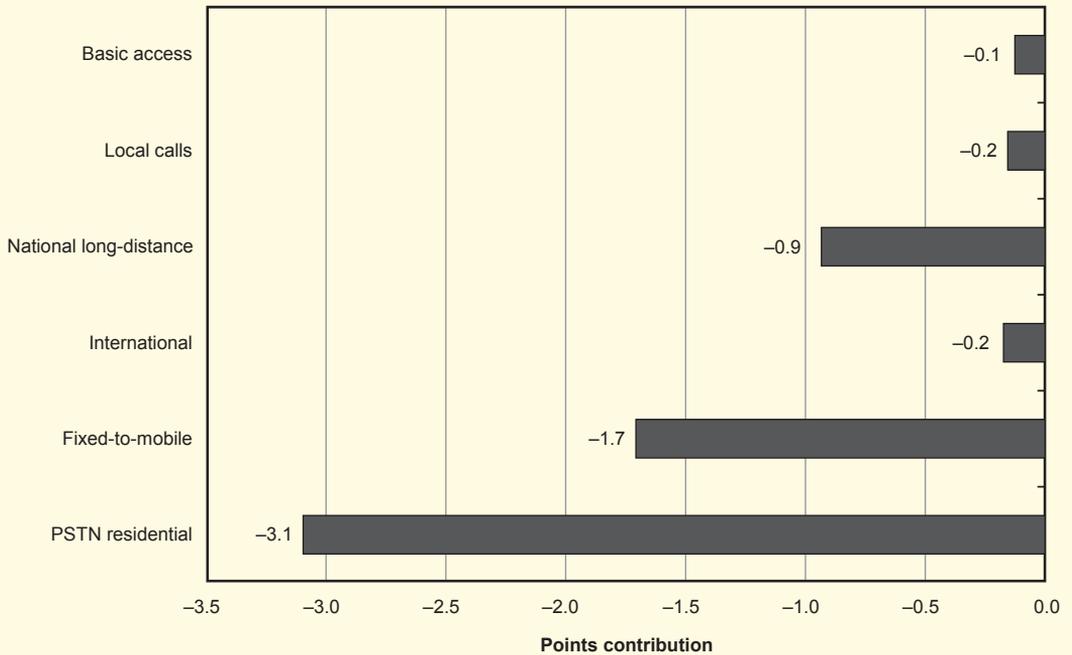
Figure 4.5 Year-on-year percentage changes in the price index by PSTN service for residential consumers, 2004–5 to 2008–9



Source: Data from Telstra, AAPT, Primus and Optus.

In 2008–09 the PSTN residential index continued to decline. Fixed-to-mobile and national long-distance calls made the greatest contribution to the net decline in the residential PSTN services index in 2008–09.

Figure 4.6 Points contributions by individual PSTN services to the residential index, 2008–09



Source: Data from Telstra, Optus, AAPT and Primus.

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

4.3 PSTN business index

The index for PSTN business services is calculated from the 'small business' and 'other business' indexes. Each sub-index comprises five PSTN services—basic access, local calls, national long-distance calls, international calls and fixed-to-mobile calls.

4.3.1 Definition of business type

There is no single accepted definition of 'small business' or 'other business' across carriers. This can make it difficult to compare prices between business types and carriers, as customers that may be classed as a 'small business' consumer by one carrier may be treated as an 'other business' consumer by another carrier. Carriers regularly change their definitions, shifting revenues and usage between consumer categories and between years, making year-on-year comparisons within business categories problematic.

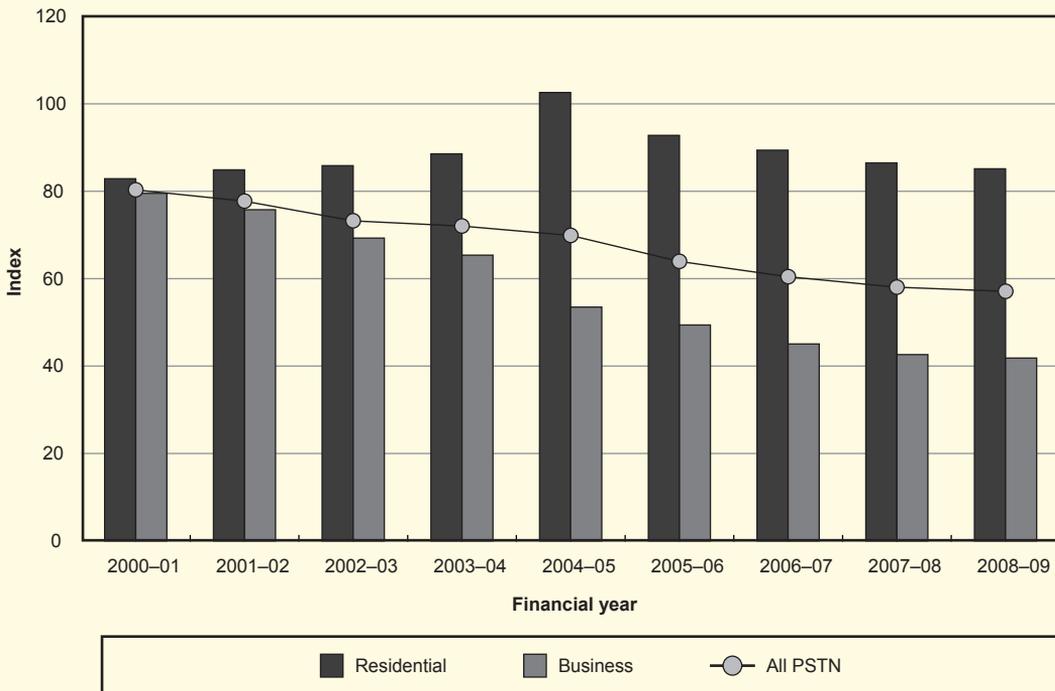
The Australian Competition and Consumer Commission (ACCC) considers that the aggregate PSTN business index is the most reliable indicator of price change for business consumers, as it includes all revenue and usage data from all business consumers each year, regardless of definition changes by carriers. However, the ACCC also considers that the 'small business' and 'other business' sub-indexes still provide useful information on price trends between different sized business consumers, and has continued to include information on these sub-indexes in this report.

4.3.2 Main changes

In 2008–09 the average prices paid by ‘other business’ and ‘small business’ consumers for PSTN services decreased, continuing an annual trend since 2005–06.

Average prices paid by ‘other business’ customers for PSTN services have decreased since 2000–01. By comparison, average prices paid by ‘small business’ customers for PSTN services increased between 2000–01 and 2004–05 and since then have fallen each year—albeit not below prices paid for these services in 2000–01.

Figure 4.7 PSTN business services index for all business, by small and other businesses, 2001–02 to 2008–09



Source: Data from Telstra, AAPT, Primus, Optus (except 2001–02 data, which was excluded from the index) and One.Tel (until 2000–01).

Note: Base year is 1997–98.

The average prices paid by business customers for PSTN services decreased in 2008–09, continuing a trend since 2000–01. This decline was a result of annual decreases in prices for all PSTN call services, which was partially offset by an increase in basic access prices paid by business consumers.

Table 4.4 Year-on-year percentage changes in the PSTN business index, 2000–01 to 2008–09

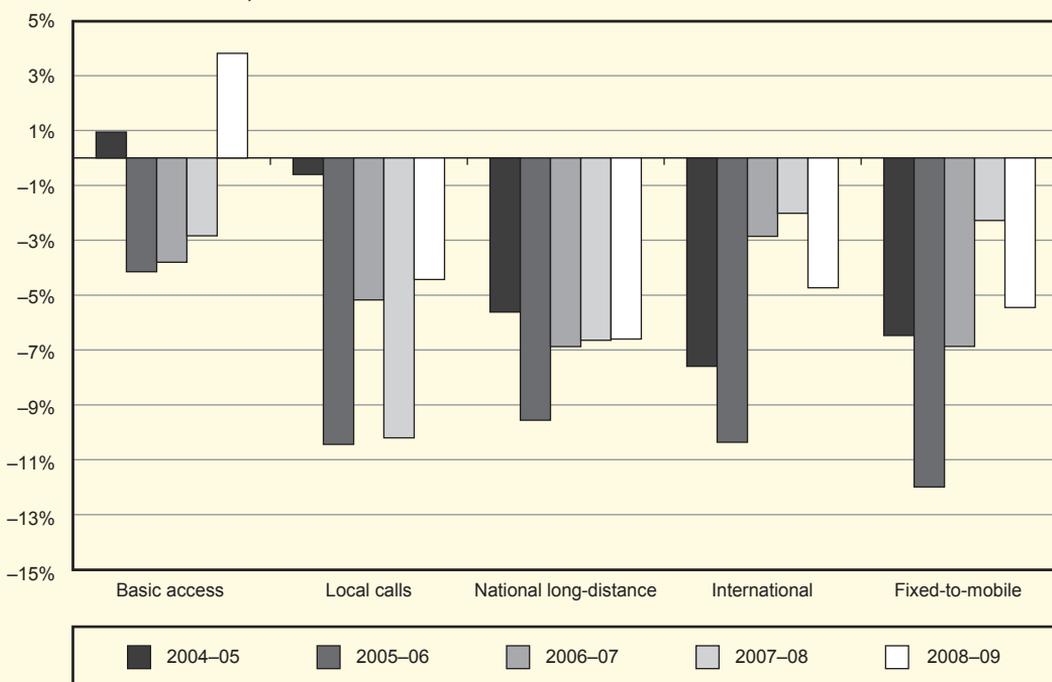
	2000–01	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09
Basic access	13.7	10	4.2	5.8	0.9	-4.2	-3.8	-2.8	3.8
Local calls	-20.2	-13.0	-9.2	-2.3	-0.6	-10.4	-5.2	-10.2	-4.4
National long-distance	-11.7	-8.9	-8.6	-6.8	-5.6	-9.6	-6.9	-6.6	-6.6
International	-25.2	-13.3	-14.3	-5.8	-7.6	-10.4	-2.9	-2.0	-4.7
Fixed-to-mobile	-9.9	-1.8	-9.7	-4.7	-6.5	-12.0	-6.9	-2.3	-5.5
PSTN business	-9.2	-3.2	-5.8	-1.6	-2.9	-8.6	-5.5	-4.0	-1.7

Source: Data from Telstra, AAPT, Primus and Optus (except 2001–02 data, which was excluded from the index).

Note: Base year is 1997–98.

Basic access prices for PSTN business users exhibit different movements than call prices for PSTN business users, with no apparent trend. Business customers have experienced annual decreases in prices for local, national long-distance, international and fixed-to-mobile calls since 2000–01.

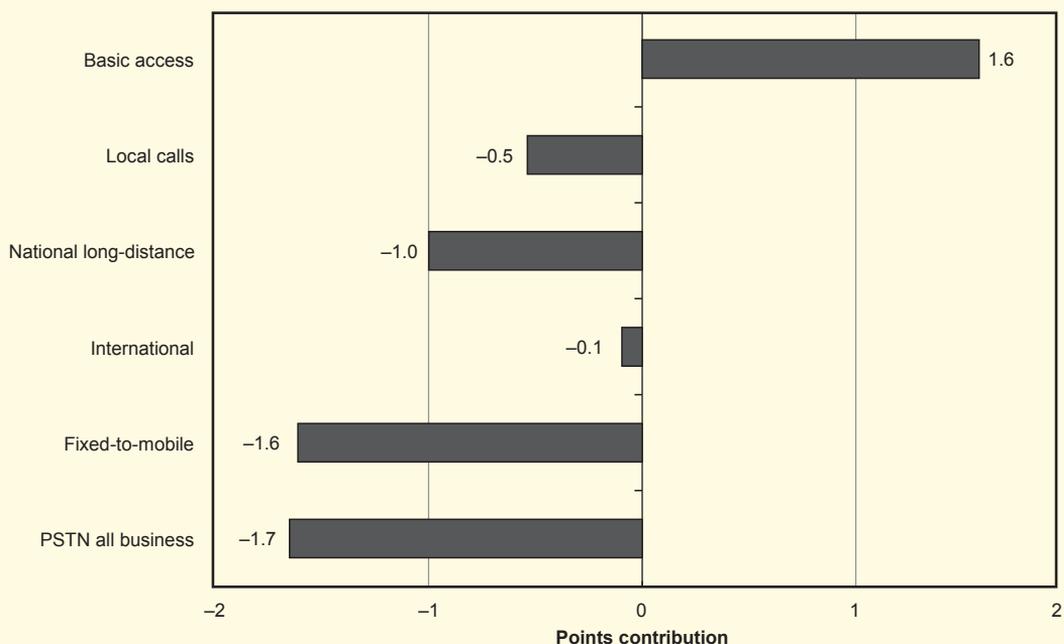
Figure 4.8 Year-on-year percentage changes in the price index by PSTN service for business consumers, 2004–05 to 2008–09



Source: Data from Telstra, AAPT, Primus and Optus.

In 2008–09 the average price of all PSTN business services decreased. This decrease was partially offset by an increase in average basic access prices.

Figure 4.9 Points contributions by individual PSTN services to the all business index, 2008–09



Source: Data from Telstra, Optus, AAPT and Primus.

Note: The sum of the components' points contributions may not add up to the net index change, due to rounding.

'Small business' and 'other business' customers experienced price decreases in 2008–09. 'Other business' customers have continued to experience price declines since 2000–01. In contrast, 'small business' consumers have only experienced declining prices since 2005–06.

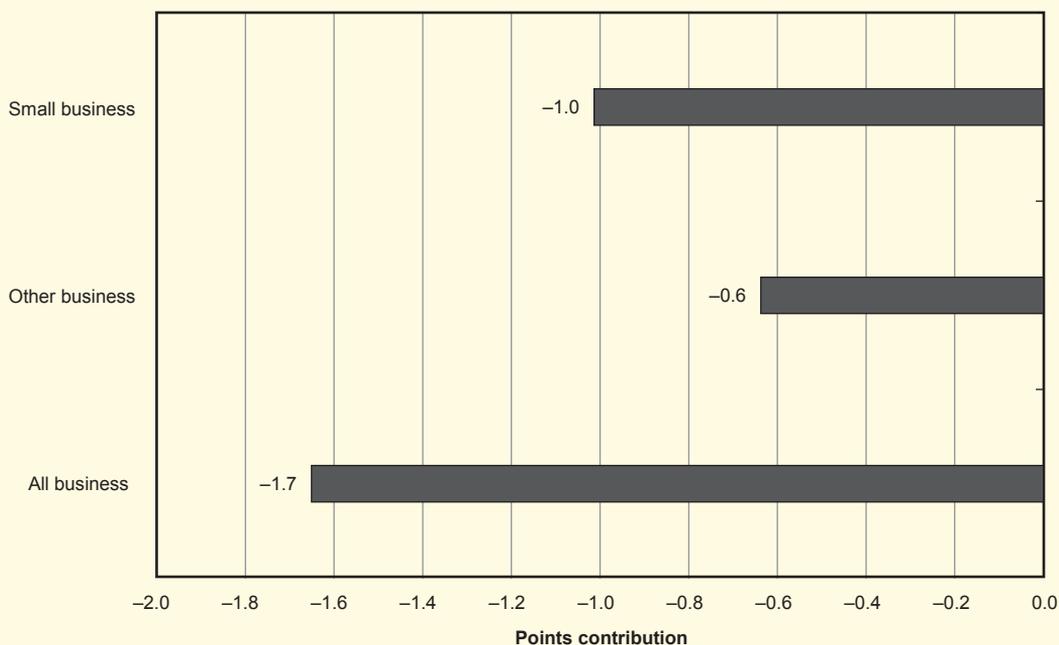
Table 4.5 Year-on-year percentage changes in the PSTN business index by business type, 2000–01 to 2008–09

	2000–01	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09
Small business	-8.7	2.4	1.1	3.1	15.9	-9.6	-3.6	-3.3	-1.5
Other business	-9.4	-4.7	-8.6	-5.6	-18.2	-7.7	-8.8	-5.4	-1.9
PSTN business index	-9.2	-3.2	-5.8	-1.6	-2.9	-8.6	-5.5	-4.0	-1.7

Source: Data from Telstra, AAPT, Primus and Optus (except 2001–02 data, which was excluded from the index).

'Small business' PSTN services made the greatest contribution to the decline in the PSTN services index in 2008–09.

Figure 4.10 Points contributions by small and other business to the PSTN business index, 2008–09



Source: Data from Telstra, Optus, AAPT and Primus.

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

4.4 Small business index

4.4.1 Main changes

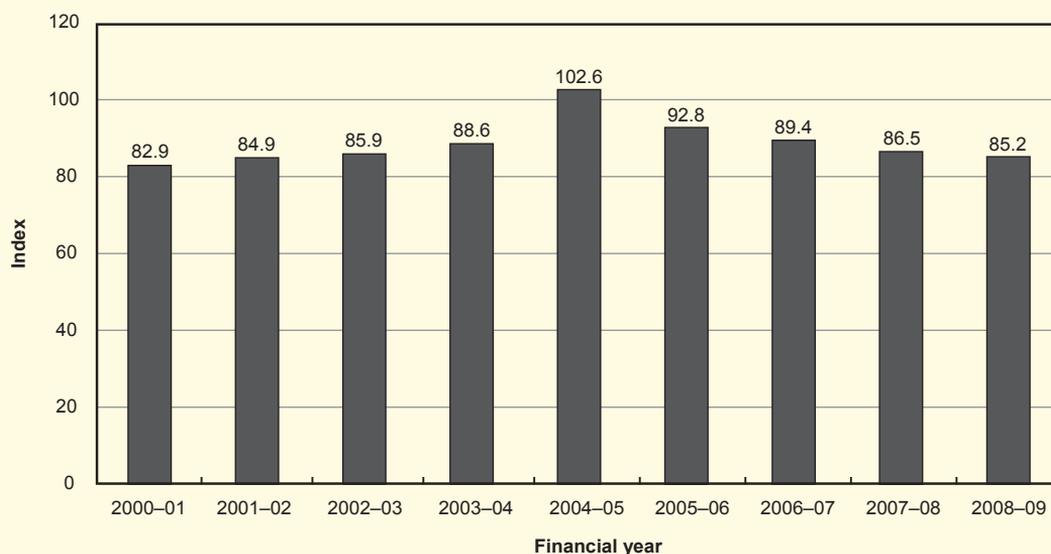
The PSTN index for 'small business' services declined in 2008–09.

4.4.2 Price changes by PSTN service for small business consumers¹⁶⁸

After a series of price increases for all PSTN services between 2002–03 and 2004–05 there have been annual declines in PSTN 'small business' service prices.

¹⁶⁸ 'Small business consumer' means a business customer that is designated by a carrier or carriage service provider, for its internal reporting purposes, as a small business customer.

Figure 4.11 Index for PSTN services for small business consumers, 2000–01 to 2008–09



Source: Data from Telstra, AAPT, Primus, Optus (except 2001–02 data, which was excluded from the index) and One Tel (until 2000–01)

Note: Base year is 1997–98.

In 2008–09, the average price paid by ‘small business’ consumers decreased. Average prices for all PSTN service types declined, while prices for basic access increased.

The PSTN ‘small business’ index increased between 2001–02 and 2004–05 and has declined since then.

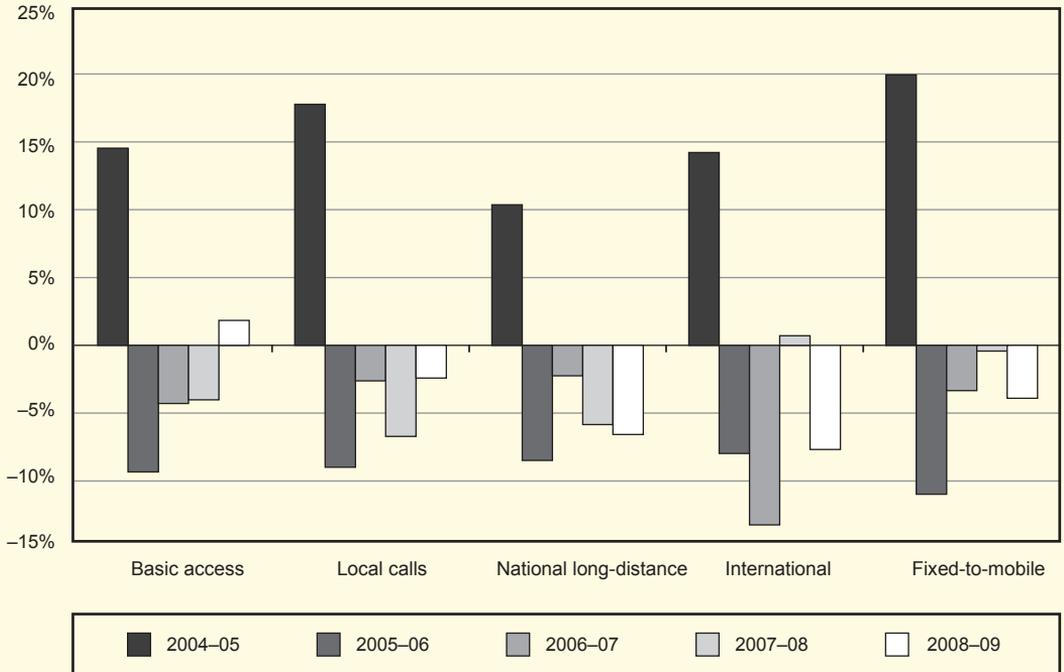
Table 4.6 Year-on-year percentage changes in the PSTN small business index by service type, 2000–01 to 2008–09

	2000–01	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09
Basic access	8.5	16.2	7.5	7.7	14.5	–9.3	–4.3	–4.0	1.8
Local calls	–23.2	–3.0	–3.7	–3.0	17.8	–9.0	–2.6	–6.7	–2.4
National long-distance	–3.4	–6.6	–6.8	5.3	10.3	–8.5	–2.3	–5.8	–6.6
International	–13.2	–13.4	–7.3	–4.4	14.1	–8.0	–13.2	0.7	–7.7
Fixed-to-mobile	–8.6	–0.8	–4.3	1.4	19.8	–11.0	–3.3	–0.4	–3.9
PSTN small business	–8.7	2.4	1.1	3.1	15.8	–9.6	–3.6	–3.3	–1.5

Source: Data from Telstra, AAPT, Primus and Optus (except 2001–02 data, which was excluded from the index).

The movement in average prices for basic access exhibits a different trend to that of prices for other PSTN call services. In 2004–05 Telstra reported falling revenues and traffic (usage) across all services for small business customers, implying a proxy price increase across all PSTN services. Since then, prices have fallen, with the exception of basic access prices in 2008–09 and average international calls in 2007–08.

Figure 4.12 Year-on-year percentage changes in the price index by PSTN service for small business consumers, 2004–05 to 2008–09



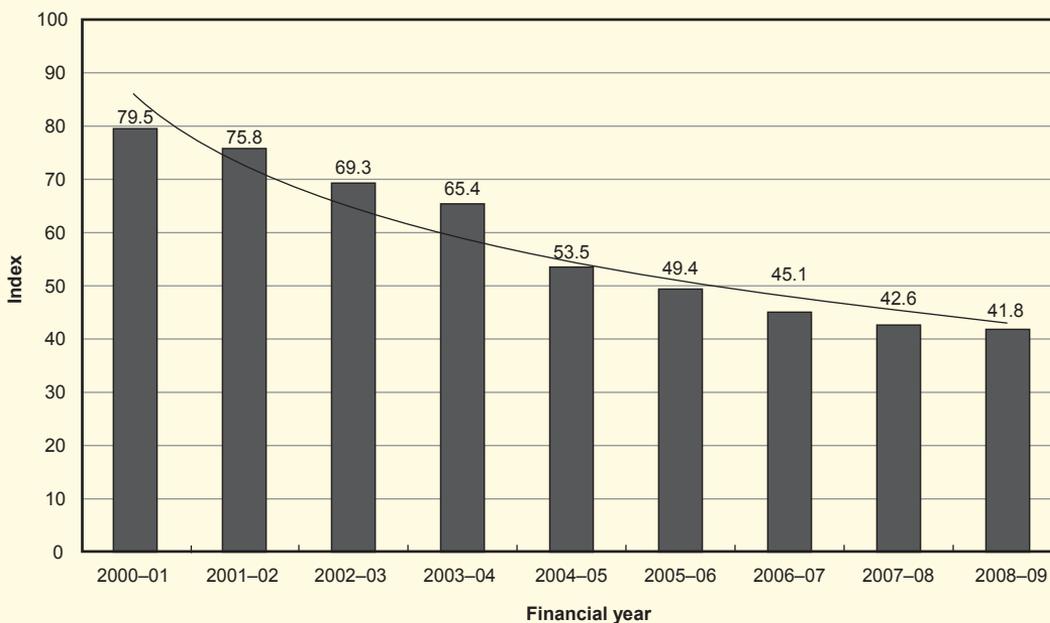
Source: Data from Telstra, AAPT, Primus and Optus

4.5 Other business index

4.5.1 Main changes

In 2008–09 average prices paid by ‘other business’ customers for PSTN fixed-line services decreased. This continues a trend since 2000–01.

Figure 4.13 Index of PSTN services for other business consumers,¹⁶⁹ 2000–01 to 2008–09



Source: Data from Telstra, AAPT, Primus, Optus (except 2001–02 data, which was excluded from the index) and One.Tel (until 2000–01).

Notes: Base year is 1997–98.

4.5.2 Price changes by PSTN service for other business consumers

The average prices of ‘other business’ PSTN services have decreased annually since 2000–01.

The decrease in prices for all PSTN services was partially offset by an increase in the price of basic access services.

Table 4.7 Year-on-year percentage changes in the PSTN other business index by service type, 2000–01 to 2008–09

	2000–01	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09
Basic access	15.4	7.9	0.6	3.7	-14.7	1.5	-2.6	-0.3	9.0
Local calls	-19.4	-15.4	-10.7	-1.6	-18.9	-11.9	-11.1	-19.0	-9.0
National long-distance	-14.6	-9.5	-9.1	-14.8	-16.1	-10.3	-12.6	-7.8	-6.6
International	-22.3	-13.4	-15.7	-6.8	-21.8	-12.0	9.9	-5.0	-2.3
Fixed-to-mobile	-10.2	-2.0	-10.9	-8.5	-21.3	-12.6	-12.0	-5.2	-8.2
PSTN other	-9.4	-4.7	-8.6	-5.6	-18.2	-7.7	-8.8	-5.4	-1.9

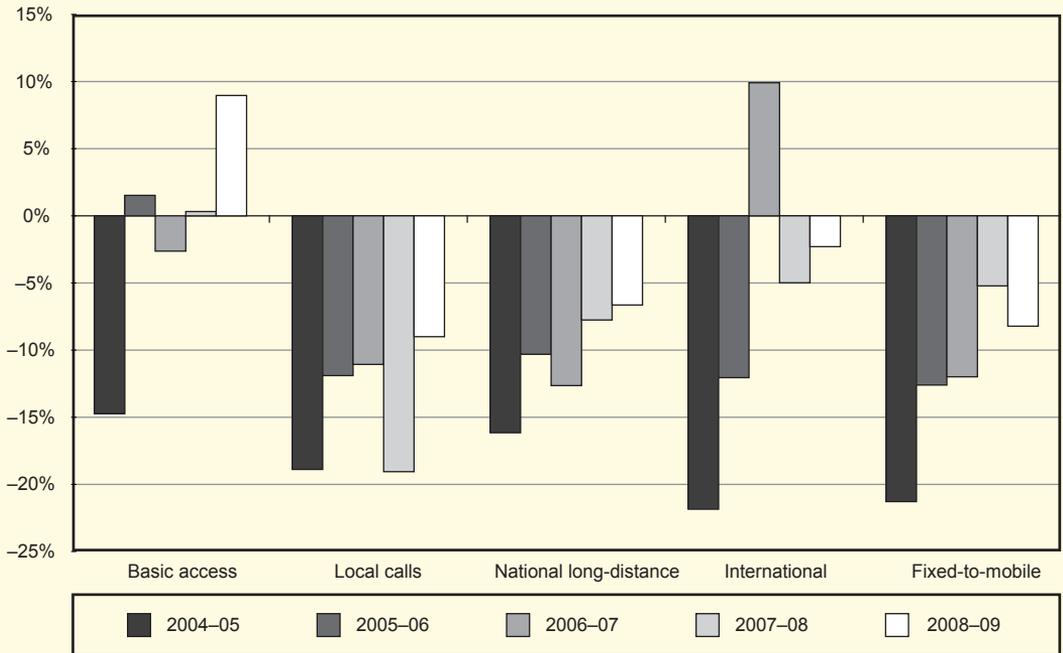
Source: Data from Telstra, AAPT, Primus and Optus (except 2001–02 data, which was excluded from the index).

¹⁶⁹ ‘Other business consumer’ means a business customer that is not a small business customer, and may include charities and not-for-profit organisations.

The average price paid for basic access by 'other business' customers since 2000–01 exhibit different price movements than other PSTN call services, with no apparent trend.

In 2004–05 carriers reported falling revenues and increasing traffic (usage) leading to price decreases across all PSTN services, with the exception of basic access. Since then, average prices for all PSTN call types have decreased, with the exception of international calls in 2007–08.

Figure 4.14 Price changes for individual PSTN services for other business consumers, 2004–05 to 2008–09



Source: Data from Telstra, AAPT, Primus and Optus.

5 Mobile services index

The mobile services index indicates how average prices change for consumers of GSM, 3G and CDMA prepaid and post-paid mobile services.¹⁷⁰ The index is calculated from sample prices for bundles of mobile services that represent the expenditure patterns of consumers with ‘very low’, ‘low’, ‘average’, ‘high’ and ‘very high’ expenditure on mobile services.¹⁷¹

Sub-indexes are prepared for post-paid and prepaid GSM and 3G services. The sub-indexes are weighted in the index using revenue weights for each of the mobile services.

CDMA services are no longer included in the mobile services index in 2008–09, as these services have been withdrawn.

5.1 Main changes

In 2008–09, average prices for all mobile services decreased, continuing the trend since 2003–04. Since 1997–98, the mobile services index has declined by 49.2 per cent.

Prepaid GSM and 3G services experienced greater price decreases than post-paid GSM and 3G services during 2008–09. The decline in these sub-indexes appears to be a result of changes to the capped or ‘bucket’ plan offerings. These changes included a significant increase in the entitlements included ‘within the cap’—in terms of the value of individual service entitlements or the introduction of entitlements to additional services such as international calls or, where supported, data services.

¹⁷⁰ GSM stands for global system for mobile communications; 3G stands for third-generation telecommunications standards and technology for mobile networking; CDMA stands for code division multiple-access. All are digital cellular networks.

¹⁷¹ Very low user group: occasional consumers making 1–2 calls a week; low user group: occasional to regular consumers making 5–7 calls a week; average user group: regular to frequent consumers making 2 calls a day; high user group: frequent consumers making 4–5 calls a day; very high user group: very frequent consumers making 8–10 calls a day.

Table 5.1 Year-on-year percentage changes in price indexes for mobile services, 2000–01 to 2008–09

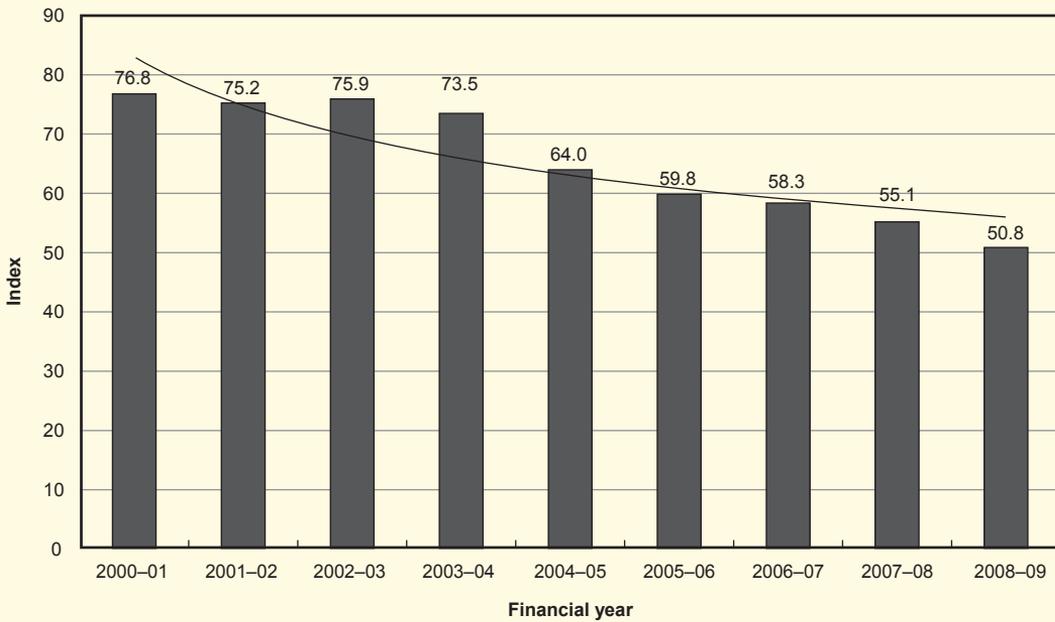
	2000–01	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09
GSM:									
post-paid	-5.4	-0.9	2.2	-1.0	-15.3	-10.2	-6.9	-9.3	-7.4
prepaid	-13.7	-5.1	-0.9	-5.6	-5.6	-0.8	1.8	-2.8	-14.3
All GSM	-6.8	-2.0	1.1	-3.2	-12.9	-6.7	-3.1	-6.3	-10.8
CDMA:									
post-paid			-2.0	-1.5	-14.2	-0.3	2.9	-3.5	n.a.
prepaid			-3.6	-4.3	-12.4	2.7	2.1	-3.3	n.a.
All CDMA			-2.3	-2.2	-13.9	0.4	2.6	-3.5	n.a.
3G:									
post-paid								-3.5	-3.3
prepaid								-7.3	-10.5
All 3G								-3.7	-4.2
Overall	-6.8	-2.0	0.9	-3.2	-13.0	-6.5	-2.5	-5.4	-7.8

Sources: Data from Telstra, Optus, Orange, Primus, Vodafone, AAPT and Virgin Mobile; and published mobile plans and service information.

Note: CDMA services were withdrawn in 2007–08

Average prices of mobile services have trended downward since 2000–01.

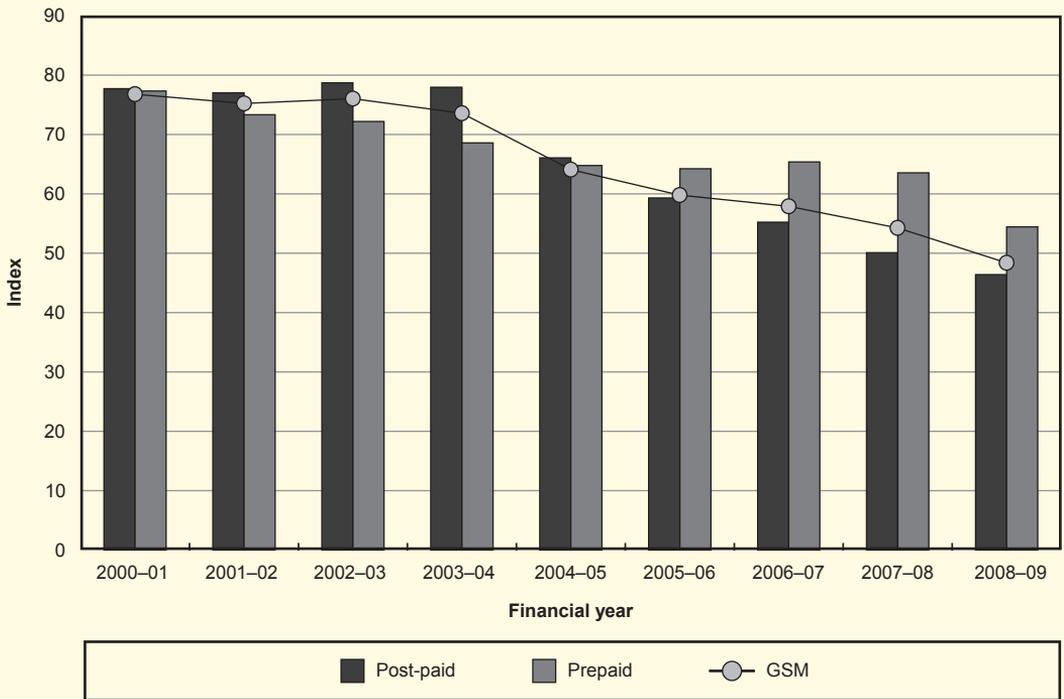
Figure 5.1 Overall mobile services index, 2000–01 to 2008–09



5.2 GSM services

Average prices paid for GSM services decreased further in 2008–09, continuing a trend that commenced in 2003–04. Since 2000–01, GSM post-paid service prices have decreased by more than those for prepaid services.

Figure 5.2 GSM mobile services index, 2000–01 to 2008–09



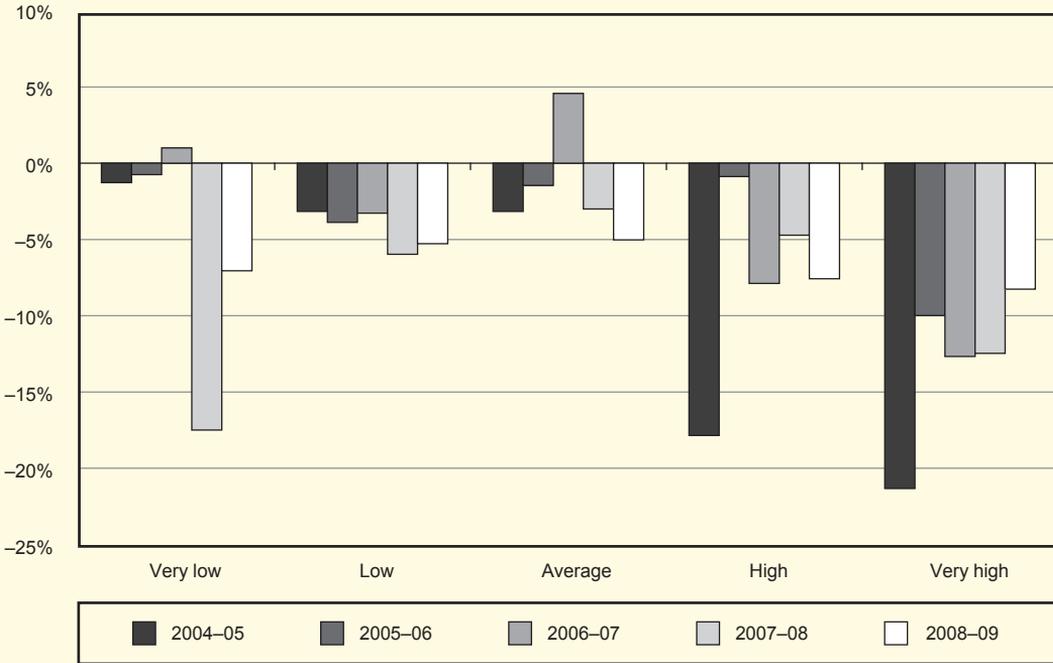
Sources: Communications Research Unit (CRU) of the former Department of Communications, Information Technology and the Arts estimates to 2000–01; data from Telstra, Optus, Vodafone, AAPT and Virgin Mobile; and published mobile plans and service information.

Notes: Base year is 1997–98 for post-paid and 1998–99 for prepaid services; indexes and price changes are calculated in real price (2002–03) terms.

5.2.1 Post-paid prices

Each customer expenditure group experienced a price decrease in post-paid GSM services in 2008–09. ‘Very high’ users experienced the sharpest decline.

Figure 5.3 Year-on-year percentage changes in the price index for GSM post-paid services by user group, 2004–05 to 2008–09



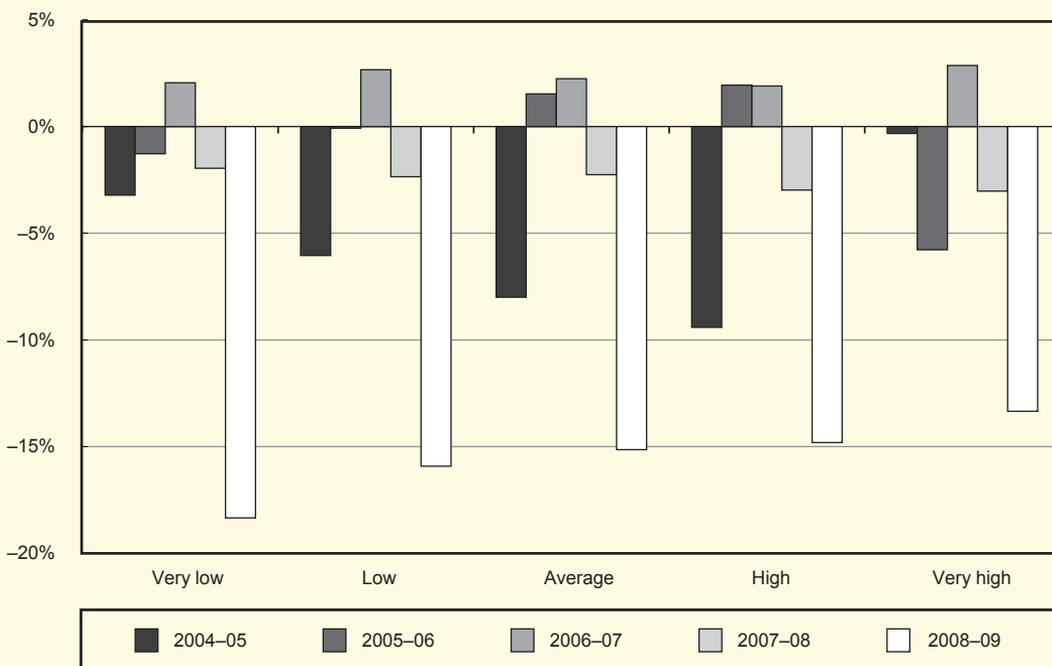
Sources: Data from Telstra, Optus, Vodafone, AAPT and Virgin Mobile; and published mobile plans and service information.

Notes: Base year is 1997–98; indexes and price changes are calculated in real price (2002–03) terms.

5.2.2 Prepaid prices

In 2008–09, the price index for GSM prepaid services decreased for all user groups. ‘Very low’ users experienced the greatest decrease in price.

Figure 5.4 Year-on-year percentage changes in the price index for GSM prepaid services by user group, 2004–05 to 2008–09



Sources: Data from Telstra, Optus, Vodafone, AAPT and Virgin Mobile; and published mobile plans and service information.

Notes: Base year is 1998–99; indexes/price changes are calculated in real price (2002–03) terms.

5.3 3G services

In 2008–09, average prices for 3G services decreased further, with prepaid 3G customers experiencing a larger price decrease than post-paid 3G customers.

Table 5.2 Year-on-year percentage changes in price indexes for 3G services

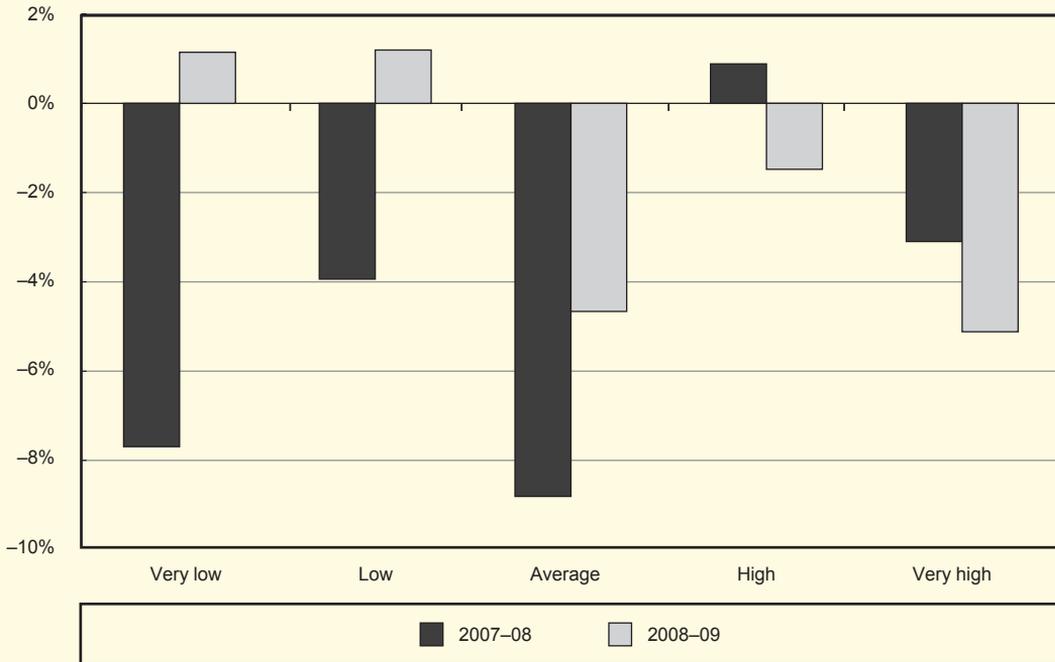
	2007–08	2008–09
Post-paid	-3.5	-3.3
Prepaid	-7.3	-10.5
All 3G	-3.7	-4.2

Sources: Data from Telstra and Optus; and published mobile plans and service information.

5.3.1 Post-paid prices

In 2008–09 the price index for 3G post-paid services decreased. The decline in the index was due to decreases in prices for the ‘average’, ‘high’ and ‘very high’ user groups, which were partially offset by price increases for the ‘very low’ and ‘low’ user groups.

Figure 5.5 Year-on-year percentage changes in the price index for 3G post-paid services by user group, 2007–08 to 2008–09



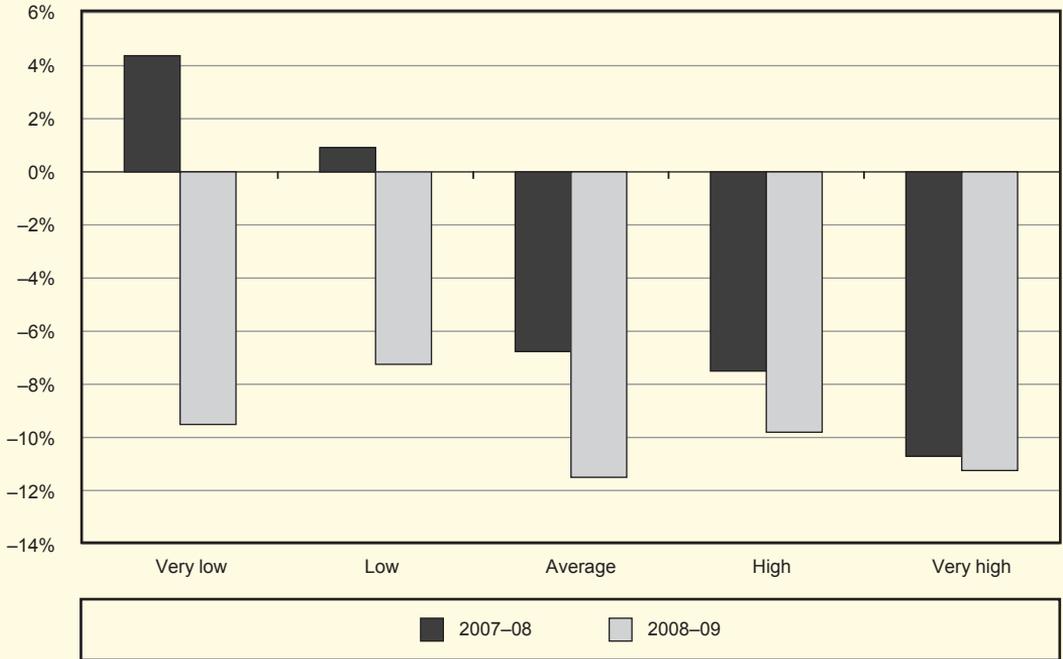
Sources: Data from Telstra, Optus, Vodafone, AAPT and Virgin Mobile; and published mobile plans and service information.

Notes: Base year is 2006–07; indexes and price changes are calculated in real price (2006–07) terms.

5.3.2 Prepaid prices

In 2008–09, the average prices paid by all user groups for 3G prepaid services decreased.

Figure 5.6 Year-on-year percentage changes in the price index for 3G prepaid services by user group, 2007–08 to 2008–09

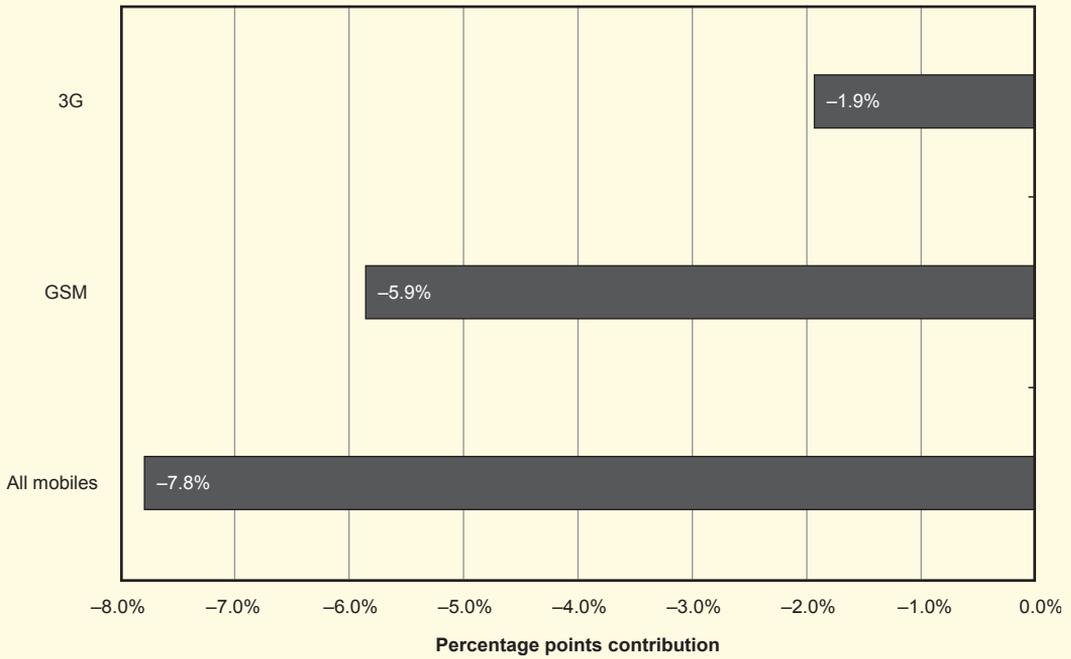


Sources: Data from Telstra, Optus, Vodafone, AAPT and Virgin Mobile; and published mobile plans and service information.
 Notes: Base year is 2006–07; indexes and price changes are calculated in real price (2006–07) terms.

5.4 Points contribution

GSM services made the largest points contribution to the change in the mobile services index, reflecting that they experienced the greatest price reduction and have the greatest revenue share.

Figure 5.7 Points contribution by GSM and 3G indexes to the mobile services index, 2008–09



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

5.5 Analysis of price changes for mobile services in 2008–09

To make a phone call, a mobile service consumer requires a handset, connection and ongoing access to a mobile network. These are typically sold through a wide range of pricing plans.¹⁷² As there can be a high degree of cross-subsidisation among the individual components of particular phone plans, it is not possible to analyse changes in the net price of mobile services by only looking at, for example, charges per minute.

However, once net price change trends have been established, it is useful to analyse pricing plans available to consumers, to identify factors that may have contributed to price changes.¹⁷³ The following trends in mobile plans were observed in 2008–09:

- While there are some simplified call plans, carriers usually offer a range of call plans with complex discounts, handset charges, credits and free call options.
- Newer, higher quality handsets were being provided at low cost to consumers, and on zero up-front cost to consumers on post-paid contract plans.
- Minimum spend plans were common and were effectively the same as access plans—consumers must pay a minimum charge a month, with per-minute prices declining the higher the fixed minimum charge.
- The capped amount included in most post-paid and prepaid capped plans again increased significantly in 2008–09. A number of carriers also added international voice calls to the list of services to which the capped amount (or spend limit) is applicable.
- Flagfalls¹⁷⁴ are a standard fixed component for most mobile users, contrasting with earlier years when some carriers did not have a flagfall or connection charge. While the price of flagfalls overall has generally been increasing in the bundles priced for this study, there have been decreases for some consumers.
- Data usage allowances for both post-paid and prepaid capped plans for 3G services increased in 2008–09.

¹⁷² While consumers are able to sign up to plans without handsets, the CRU approach prices plans with a handset as it is a basic component for using a mobile service.

¹⁷³ ACCC, *Changes in the prices paid for telecommunications services in Australia 1999–2000*, p. 67.

¹⁷⁴ Flagfall is a fee applied at the start of a mobile voice call for the purpose of call connection, regardless of the length of the call.

6 Internet services index

The internet services index shows how average prices have changed for consumer-grade dial-up, fixed-line, cable digital subscriber line (DSL) and wireless internet services.

In 2008–09, wireless internet was added to the internet services index.

Consumer-grade services represent the majority of internet services. The DSL, cable and wireless internet sub-indexes are calculated by comparing prices for the bundle of services (initial connection, subscription and excess usage) observed at the commencement and end of the period. Prices for cable, DSL and wireless services are estimated by service provider based on published plan prices and usage profiles representative of consumers in each expenditure quintile.

The dial-up internet services index compares the average monthly expenditure by consumer.

Sub-indexes for each service type (dial-up, DSL, cable, and wireless) are then aggregated to derive an overall price index for internet services.

6.1 Main observations

The Australian Competition and Consumer Commission (ACCC) estimates that average prices paid for internet services decreased during 2008–09. The decrease in average prices was a result of a decline in price for all internet service types, with the exception of cable internet.

Table 6.1 Year-on-year percentage changes in price indexes for internet services

	2007–08	2008–09
Dial-up	-11.0	-13.8
DSL	-5.2	-0.4
Cable	-5.9	0.5
Wireless	n.a	-18.5
Overall	-6.2	-4.6

Sources: Data from Telstra, Optus, Primus, AAPT and iiNet; and published plans and service information.

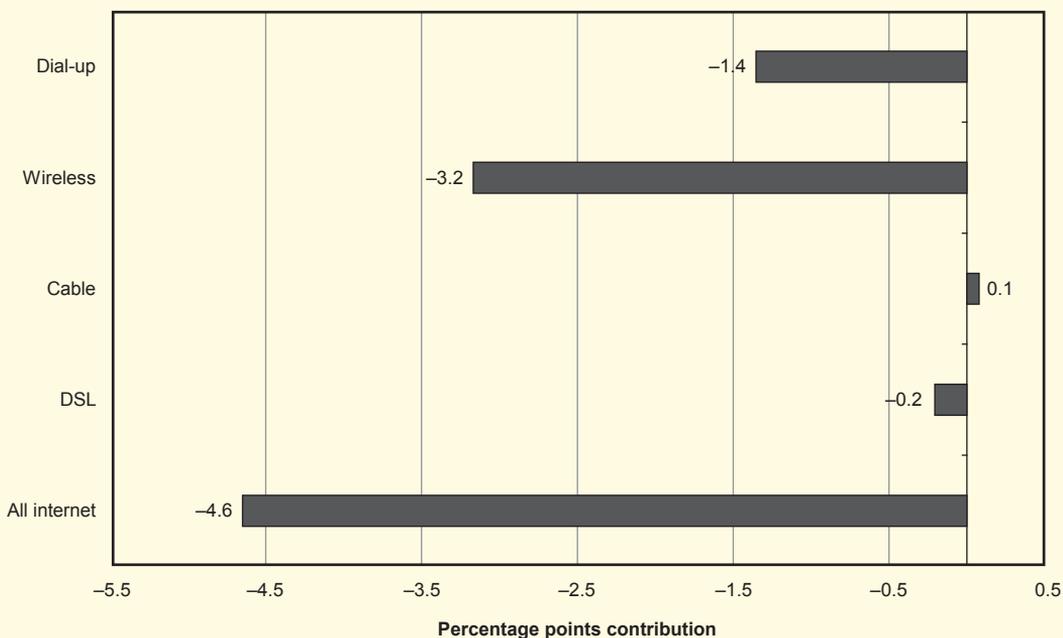
Note: Price changes are calculated in real price (2007–08) terms.

Plans for wireless internet services continued to change during the year, with new plan terms aligning much more closely with those applicable to fixed broadband services with equivalent data quotas.

6.2 Points contribution

Wireless services made the largest points contribution to the change in the internet services index.

Figure 6.1 Points contribution by dial-up, DSL and cable indexes to the internet services index, 2008–09



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

6.3 DSL internet services

There was little change in nominal DSL plan prices during 2008–09. Telstra (BigPond), the main supplier of DSL services, maintained prices on existing plans. New Telstra plans were generally directed at highest spend customers.

Other service providers continued to reduce prices on some plans, as well as introducing new plans at different price points to those on offer at the commencement of the period. These service providers also withdrew some plans to new customers.

The non-price terms attached to some plans, such as data transfer quotas and headline speeds, continued to change during the year. Download quotas tended to increase, and/or 'unmetered' content was introduced whereby certain content (typically video) could be accessed outside of the consumer's download quota. Some service providers simplified quotas, moving away from separate peak and off-peak quotas.

Other observed trends were a movement by consumers towards plans with higher headline speeds (such as asymmetric digital subscriber line 2+ (ADSL2+) plans) and/or speed throttling for excess usage (with additional charging remaining a feature of entry-level plans).

Some service providers also introduced 'naked DSL' plans. These plans are priced at a premium but do not require the consumer to acquire a public switched telephone network (PSTN) voice service in order to acquire a DSL internet service.

6.4 Cable internet services

There was also little movement in nominal cable internet plan prices during the year. Telstra (BigPond) maintained prices on existing plans. Optus reduced prices on its entry-level cable internet plan, and introduced new plans aimed at average or higher spend consumers. These new plans feature higher price points but increased data quotas (larger than those applying on most comparable plans on offer at the commencement of the period).

The Telstra and Optus cable networks have been upgraded to support higher headline speeds. Although prices for cable and DSL internet services by service provider are now broadly similar, headline speeds of cable services tend to exceed those for the most comparable DSL internet plans.

Cable internet plans are available regardless of whether the consumer acquires a PSTN voice service. In general across broadband internet services, plan prices are more expensive where the consumer does not acquire a PSTN (or other) service from the cable internet service provider (i.e., does not acquire a bundled service).

6.5 Dial-up internet services

Average prices paid for dial-up internet services decreased further during 2008–09, reflecting changes in the distribution of consumers away from higher priced dial-up internet plans to alternative internet plans.

Take-up of dial-up internet services continued to decrease over the period, resulting in this price movement making a smaller points contribution to the overall internet services index.

6.6 Wireless internet services

For the purpose of this report, wireless internet services are those that permit internet connectivity to a laptop or other computer over a wireless access network (typically a 3G network). They are distinguished from 3G services by the use of customer equipment (universal series bus (USB) modem key or wireless card) independent of a mobile phone handset, by supply independent of a mobile voice service, and by plan terms more aligned with those prevailing for other (fixed) broadband internet services.

Wireless internet plans continued to change fundamentally during the period so that, at the end of the period, wireless internet plans featured similar price points to the most comparable fixed broadband plans. On its face, this represented a very significant price reduction, with all service providers reducing plan prices during the period.

Observable differences remain between plans for wireless internet and those for fixed broadband services. Comparable wireless internet plans have not developed for heavier users (exceeding 10 gigabit (Gb) data transfer), and excess usage fees are more likely to apply (rather than speed throttling) to consumers on a wireless internet plan who exceed their download quotas.

The change in wireless internet plans was accompanied by a significant increase in the take-up of wireless internet services over the period. It may be that a large proportion of consumers acquired a wireless internet service after the decreases in plan prices occurred.

7 Tables

Table 7.1 Telecommunications services index, 2000–01 to 2008–09

	2000–01	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09
PSTN services	83.2	81.0	81.9	82.1	81.1	75.8	71.6	67.7	65.9
Mobile services	76.8	75.2	75.9	73.5	64.0	59.7	58.3	55.1	50.8
Internet services							100.0	93.8	89.5
All services (old series)	81.1	79.1	79.9	79	73.8	69	67.1	–	–
All services (new series)*							100	94.5	88.7

Sources: Data from Telstra, SingTel Optus, AAPT, Primus, Vodafone and Virgin Mobile; pricing plans and other published information.

Notes: Base year for old series is 1997–98.

* Includes internet services.

Table 7.2 PSTN services index by service; residential and business, 2000–01 to 2008–09

	2000–01	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09
All PSTN:									
Basic access	125.4	142	159.6	170.5	179.4	175.2	172.8	170.0	171.8
Local calls	74.1	65.4	62.9	60.8	56.1	50.7	47.3	42.5	41.7
National long-distance	79.4	72.5	69.1	67.8	65.7	61.2	54.5	48.6	45.3
International	48	40.7	38.3	36.1	34.5	31.5	29.9	27.6	26.4
Fixed-to-mobile	81.9	79.2	77.3	75.6	72.7	65	60.1	56.2	52.2
All PSTN	83.2	81	81.9	82.1	81.1	75.8	71.6	67.7	65.9
PSTN residential:									
Basic access	128.1	147.4	171.9	184.4	198.3	195.4	195.1	193.1	192.5
Local calls	74.1	66.0	65.2	62.7	55.7	50.7	46.8	42.1	42.0
National long-distance	82.4	75.4	73.6	74.2	72.9	68.8	59.9	52.0	48.5
International	50.5	42.6	41.1	38.7	37.3	34.1	32.3	29.4	28.2
Fixed-to-mobile	86.7	82.6	86.7	86.8	85.2	77.3	70.9	63.1	57.9
All residential	85.1	83.3	87.5	88.7	88.4	83.5	79.0	73.9	71.5
PSTN business:									
Basic access	120.9	133.0	138.5	146.6	148.0	141.9	136.5	132.6	137.6
Local calls	74.1	64.4	58.5	57.2	56.8	50.9	48.2	43.3	41.4
National long-distance	74.5	67.8	62.0	57.8	54.5	49.3	45.9	42.9	40.0
International	41.4	35.9	30.8	29.0	26.8	24.0	23.3	22.9	21.8
Fixed-to-mobile	78.3	76.9	69.5	66.2	61.9	54.5	50.7	49.6	46.9
All business	80.3	77.7	73.2	72.0	69.9	64.0	60.5	58.0	57.1

Sources: Data from Telstra, SingTel Optus, AAPT and Primus; pricing plans and other published information.

Note: Base year is 1997–98.

Table 7.3 PSTN business services index; small and other business, 2000–01 to 2008–09

	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Small business:									
Basic access	114.6	133.2	143.2	154.2	176.6	160.1	153.2	147.0	149.7
Local calls	75.5	73.2	70.5	68.4	80.6	73.4	71.4	66.6	65.0
National long-distance	86.4	80.7	75.2	79.2	87.4	80.0	78.2	73.6	68.8
International	39.7	34.4	31.9	30.5	34.8	32.0	27.8	28.0	25.8
Fixed-to-mobile	79.9	79.3	75.9	77.0	92.3	82.2	79.5	79.1	76.0
All small business	82.9	84.9	85.9	88.6	102.6	92.8	89.4	86.5	85.2
Other business:									
Basic access	123.1	132.8	133.7	138.7	118.2	120.0	116.9	117.3	127.8
Local calls	73.7	62.3	55.6	54.7	44.4	39.1	34.8	28.2	25.6
National long-distance	70.4	63.8	58.0	49.4	41.4	37.2	32.5	29.9	28.0
International	40.2	34.9	29.4	27.4	21.4	18.8	20.7	19.7	19.2
Fixed-to-mobile	77.9	76.4	68.0	62.2	49.0	42.8	37.7	35.7	32.8
All other business	79.5	75.8	69.3	65.4	53.5	49.4	45.1	42.6	41.8
PSTN business	80.3	77.7	73.2	72.0	69.9	64.0	60.5	58.0	57.1

Sources: Data from Telstra, SingTel Optus, AAPT and Primus; pricing plans and other published information.

Note: Base year is 1997–98.

Table 7.4 Mobile services index, 2000–01 to 2008–09

	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
GSM:									
Post-paid	77.7	77.0	78.7	78.0	66.1	59.1	55.2	50.1	46.4
Prepaid	77.3	73.3	72.7	68.6	64.8	63.9	65.4	63.5	54.4
All GSM	76.8	75.2	76.0	73.6	64.1	59.5	57.9	54.3	48.4
CDMA:									
Post-paid		100.0	98.0	96.6	82.8	82.6	85.0	82.0	n.a.
Prepaid		100.0	96.4	92.1	80.7	82.8	84.6	81.8	n.a.
All CDMA		100.0	97.7	95.6	82.3	82.7	84.8	81.9	n.a.
3G:									
Post-paid							100.0	96.5	93.3
Prepaid							100.0	92.7	83.0
All 3G							100.0	96.3	92.2
All mobile services	76.8	75.2	75.9	73.5	64.0	59.7	58.3	55.1	50.8

Sources: Data from Telstra, SingTel Optus, AAPT, Hutchison Telecommunications, Vodafone and Virgin Mobile (until 2006–07); pricing plans and other published information.

Table 7.5 Mobile services index by network type and user group, 2000–01 to 2008–09

	2000–01	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09
GSM post-paid:									
very low	47.6	44.0	46.0	49.6	48.9	46.4	46.8	38.6	35.9
low	63.6	59.6	59.5	58.4	56.5	51.6	49.9	47.0	44.5
average	74.4	67.7	67.0	66.7	64.6	63.9	66.8	64.8	61.6
high	76.5	73.6	72.7	72.4	59.5	57.6	53.1	50.6	46.7
very high	82.0	83.7	86.7	84.9	66.8	54.1	47.3	41.4	37.9
GSM prepaid									
very low	62.3	41.2	41.5	39.8	38.6	38.9	38.6	37.9	30.9
low	78.7	78.9	76.9	72.3	67.9	67.5	69.3	67.6	56.9
average	79.8	76.9	78.4	73.9	68.0	68.9	70.2	68.6	58.2
high	85.7	86.4	83.4	77.8	70.5	71.5	72.8	70.7	60.2
very high	80.1	83.4	85.7	79.1	78.9	73.9	76.0	73.7	63.9
CDMA post-paid:									
very low		100.0	107.9	104.0	101.7	91.2	90.0	87.5	n.a.
low		100.0	102.7	106.4	96.6	95.0	94.0	97.2	n.a.
average		100.0	106.3	110.1	102.1	104.1	103.6	96.9	n.a.
high		100.0	88.7	92.3	82.3	96.4	104.7	101.7	n.a.
very high		100.0	97.2	89.9	68.7	61.5	63.2	60.5	n.a.
CDMA prepaid:									
very low		100.0	97.6	90.3	76.8	78.7	80.2	77.1	n.a.
low		100.0	99.3	93.9	80.3	83.0	85.0	81.5	n.a.
average		100.0	97.6	94.5	82.8	85.9	88.2	85.7	n.a.
high		100.0	94.3	93.4	84.8	86.5	88.1	85.6	n.a.
very high		100.0	91.8	89.3	78.7	80.2	81.7	79.3	n.a.

	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
3G post-paid:									
very low							100.0	92.3	93.4
low							100.0	96.1	97.2
average							100.0	91.2	86.9
high							100.0	100.9	99.4
very high							100.0	96.9	91.9
3G prepaid:									
very low							100.0	104.4	94.4
low							100.0	100.9	93.6
average							100.0	93.2	82.5
high							100.0	92.5	83.4
very high							100.0	89.3	79.3

Sources: Data from Telstra, SingTel Optus, AAPT, Vodafone, Hutchison Telecommunications and Virgin Mobile (until 2006-07); pricing plans and other published information.

Table 7.6 Internet services index by network type and user group, 2006–07 to 2008–09

	2006-07	2007-08	2008-09
DSL:			
very low	100.0	98.6	99.0
low	100.0	99.1	98.8
average	100.0	99.5	99.3
high	100.0	98.7	98.5
very high	100.0	98.9	98.8
Cable:			
very low	100.0	97.6	99.2
low	100.0	99.1	98.9
average	100.0	99.1	98.9
high	100.0	99.1	98.8
very high	100.0	99.1	98.8
Wireless:			
very low		100.0	97.4
low		100.0	95.7
average		100.0	95.7
high		100.0	96.4
very high		100.0	96.4

Sources: Data from Telstra, SingTel Optus, AAPT, Primus, Vodafone, Hutchison Telecommunications and Virgin Mobile (until 2006–07); pricing plans and other published information.

Table 7.7 Points contribution to telecommunications services index, 2000–01 to 2008–09

	2000–01	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09
PSTN services	-3.6	-1.6	0.6	0.2	-0.7	-3.6	-2.9	-2.2	-1.1
Mobile services	-2.5	-0.8	0.4	-1.3	-5.8	-2.9	-1.2	-2.7	-4.5
Internet services	n/a	-0.6	-0.5						
All telecommunications services	-6.1	-2.5	1.0	-1.1	-6.6	-6.5	-4.0	-5.5	-6.1

Sources: Data from Telstra, SingTel Optus, AAPT, Primus, Vodafone, Hutchison Telecommunications and Virgin Mobile (until 2006–07); pricing plans and other published information.

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

Table 7.8 Points contribution to PSTN services indexes by service, residential and business, 2000–01 to 2008–09

	2000–01	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09
PSTN:									
Basic access	3.3	3.7	3.7	2.2	1.8	-0.9	-0.5	-0.7	0.5
Local calls	-5.0	-2.6	-0.8	-0.7	-1.4	-1.5	-0.9	-1.2	-0.3
National long-distance	-1.5	-1.9	-0.9	-0.4	-0.5	-1.1	-1.7	-1.6	-1.0
International	-1.5	-1.1	-0.4	-0.3	-0.2	-0.4	-0.2	-0.3	-0.1
Fixed-to-mobile	-1.1	-0.7	-0.5	-0.5	-0.9	-2.7	-2.0	-1.8	-1.7
All PSTN	-5.9	-2.6	1.1	0.2	-1.2	-6.6	-5.4	-5.5	-2.6
PSTN residential:									
Basic access	3.7	4.4	5.1	2.5	2.6	-0.6	-0.1	-0.5	-0.1
Local calls	-4.7	-2.4	-0.3	-0.8	-2.1	-1.5	-1.1	-1.3	-0.2
National long-distance	-0.7	-1.9	-0.5	0.1	-0.3	-1.0	-2.2	-2.0	-0.9
International	-1.6	-1.5	-0.3	-0.4	-0.2	-0.4	-0.3	-0.4	-0.2
Fixed-to-mobile	-0.2	-0.8	0.9	0	-0.3	-0.2	-1.8	-2.3	-1.7
All residential	-3.5	-2.1	5	1.4	-0.3	-5.5	-5.4	-6.4	-3.1
PSTN business:									
Basic access	2.7	2.5	1.1	1.7	0.3	-1.5	-1.4	-1.0	1.6
Local calls	-5.5	-2.9	-1.7	-0.4	-0.1	-1.5	-0.7	-1.2	-0.5
National long-distance	-2.5	-2.0	-1.7	-1.2	-0.9	-1.5	-1.0	-0.9	-1.0
International	-1.3	-0.4	-0.5	-0.2	-0.2	-0.2	-0.1	0	-0.1
Fixed-to-mobile	-2.6	-0.5	-3.0	-1.5	-2.1	-3.9	-2.4	-0.8	-1.6
All business	-9.3	-3.2	-5.8	-1.6	-2.9	-8.6	-5.5	-4.0	-1.7

Sources: Data from Telstra, SingTel Optus, AAPT and Primus; pricing plans and other published information.

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

Table 7.9 Points contribution to mobile services index, 2000–01 to 2008–09

	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
GSM			1.0	-3.0	-11.3	-6.3	-2.5	-4.2	-5.9
CDMA			-0.1	-0.2	-1.7	-0.2	0.2	-0.2	n.a.
3G								-1.0	-1.9
All mobile services			0.9	-3.2	-13.0	-6.5	-2.3	-5.4	-7.8
GSM:									
post-paid	-4.6	-0.6	1.4	-1.9	-6.6	-6.4	-3.9	-5.0	-3.7
prepaid	-2.2	-1.4	-0.3	-1.3	-6.3	-0.3	1.3	-1.5	-7.2
All GSM	-6.8	-2.0	1.1	-3.2	-12.9	-6.7	-2.7	-6.5	-1.9
CDMA:									
post-paid			-1.1	-1.3	-9.9	-3.1	2.4	-3.1	n.a.
prepaid			-1.5	-0.9	-3.9	-0.2	0.2	-2.9	n.a.
All CDMA			-2.7	-2.2	-13.8	-3.3	2.6	-5.9	n.a.
3G:									
post-paid								-3.2	-2.9
prepaid								-6.8	-9.2
All 3G								-10.0	-2.7

Sources: Data from Telstra, SingTel Optus, AAPT, Vodafone, Hutchison Telecommunications and Virgin Mobile (until 2006–07); pricing plans and other published information.

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

Table 7.10 Points contribution to internet services index, 2007–08 to 2008–09

	2007–08	2008–09
Dial-up	-1.6	-1.4
DSL	-3.4	-0.2
Cable	-1.2	0.1
Wireless	n/a	-3.2
All internet services	-6.2	-4.6

8 Methodology for determining price change

8.1 Index model

Since 1999–2000 a basket approach has been used to measure the prices consumers pay for telecommunications services— an approach developed by the Communications Research Unit (CRU) of the former Department of Communications, Information Technology and the Arts.

Index numbers are used to analyse movements in prices paid 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 advantages and disadvantages of the index approach and the method of constructing indexes are detailed in the report for 1999–2000.¹⁷⁵

The price indexes are constructed using revenue, quantity and pricing plan data collected by the Australian Competition and Consumer Commission (ACCC) from several telecommunications service providers. They are then aggregated to derive an overall index.

The ACCC uses a different methodology to derive the public switched telephone network (PSTN) services index and the dial-up internet services index from the one used for the mobile services index and broadband internet services index. The methodology is described below.

Changes to the constitution of indexes and sub-indexes should be kept in mind when comparing changes in an index over different time periods.

Major index changes include the following:

- The internet services index became a component of the telecommunications services index in 2007–08. In 2008–09, wireless internet services were first included in the internet services index.
- The methodology used to calculate the mobile services index has changed over time. In 2006–07, prices were rebased. In 2007–08, third-generation mobile communications (3G) services were included for the first time. In 2008–09 the code division multiple access (CDMA) services sub-index was discontinued when the service was withdrawn and its customers migrated to either 3G or global system for mobile communications (GSM) services.

Consistent with the obligation to report on prices paid for telecommunications services, this report represents changes in prices after deducting discounts and concessions offered to consumers.

¹⁷⁵ A full description of the construction of the index and the underlying theory is contained in appendix 1 of ACCC, *Changes in the prices paid for telecommunications services in Australia 1999–2000*.

8.1.1 The PSTN services index

Data on actual PSTN prices paid by consumers is not readily available and would require regular and expensive sampling to obtain. Tariff documents may not include information on discounts and short-term specials, which carriers increasingly offer, and many discount plans become effective only after a threshold value has been reached or number of calls has been made. It is extremely difficult to retrospectively establish the actual prices paid by consumers for particular services and the degree to which customers may have taken advantage of discounts.¹⁷⁶

To try to capture the effects of discounts and specials on prices paid, carrier revenue and usage data have been used to derive a yield. The yield provides a proxy for price in the form of an estimate of the average price paid for a unit of a telecommunications service.

Participating carriers provided separate revenue and usage estimates for five PSTN services—basic access, local calls, national long-distance calls, international long-distance calls and fixed-to-mobile calls. For each of these, carriers were asked to further disaggregate the data into usage by residential, small business and other business consumers.

Using this data, a yield has been estimated for every PSTN service by consumer group for each year (1997–98 to 2008–09). These yields are then converted into real terms¹⁷⁷ and used to construct a series of price indexes that show how prices paid for individual PSTN services by different consumer groups changed over time. Individual carrier indexes for each PSTN service and consumer group category are then combined to derive indexes for PSTN services consumed by the three consumer groups. These three indexes are then aggregated into an overall index for all PSTN services for all consumers.

As with all aggregated indexes, the expenditure share of a service determines its 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.

8.1.2 The mobile services index

The mobile services index reflects prices that consumers pay for mobile services provided on GSM and 3G networks, including both prepaid and post-paid (billed) mobile services. In contrast to the PSTN index, yield data has not been used to construct indexes for mobile services. This reflects differences in the pricing structure of PSTN and mobile services.

To make a call on a mobile network, consumers require a mobile handset, connection and ongoing access to the network. Carriers and carriage service providers typically offer these services as part of a bundled package or plan. These plans include ongoing access to a carrier's network, charges for calls and other services and, if required, connection and a handset. Increasingly, these are represented within a single plan price offered to the consumer.

¹⁷⁶ Because of the difficulty in obtaining data on prices paid, the standard or list prices were used to construct the weighted averages for each service in the first two Division 12 reports, but at a cost. Standard prices are the maximum consumers pay—they exclude all discounts and short-term specials.

¹⁷⁷ In the index model, revenue and price data for PSTN services is expressed in 1999–2000 dollars, and data for mobile services is expressed in 2002–03 dollars. The nominal values were converted to 1999–2000 values using the Australian Bureau of Statistics (ABS) consumer price index (CPI).

Mobile plans contain a high degree of cross-subsidisation. Historically, when carriers have offered low up-front charges for handsets, they have recovered these costs through higher charges for monthly access or outgoing calls. When choosing which plan to use, consumers can further trade off higher access charges for lower call charges and increasingly choose from an array of discount options to suit their calling preferences.

The mobile services index follows previous ACCC practice by using samples of 385 bills for each mobile carrier to construct average usage 'bundles' consumed by 'very low', 'low', 'average', 'high' and 'very high' spend customers.

For this report, the usage bundles have included additional services introduced in 2007–08:¹⁷⁸

- domestic voice calls (number and duration)
- international voice calls (number and duration)
- message retrieval calls (number and duration)
- text messages—SMS (number)
- data usage (megabytes)
- content services (number and dollar amount)
- handset charges (dollar amount)
- other charges (dollar amount).

The updating of the bundles in 2007–08 ensured that their prices and price changes reflect the structure of services purchased in the marketplace (noting that the previous bundles dated from 2000 and were last updated for the average quantities of the respective services in 2003).

Separate indexes are constructed to compare the cost of each bundle over time. These indexes—GSM and 3G, post-paid and prepaid—are then aggregated using a revenue-weighting process to form an overall mobile services index. The mobile services index for 2007–08 included 3G services for the first time. In 2008–09, CDMA services were withdrawn and their customers migrated to either 3G or GSM services.

As there has been a change in the methodology and services covered by this index, there is a break in the series.

8.1.3 Internet services index

The internet services index comprises sub-indexes for dial-up internet, DSL and cable broadband and wireless internet services. Sub-indexes for consumer type are not included. Plans for residential consumer-grade services are monitored, as these represent the overwhelming majority of internet services.

The DSL, cable and wireless internet indexes are calculated by comparing prices for the bundle of services (initial connection, subscription and excess usage) observed at the commencement and end of the period for service providers included in the study.

¹⁷⁸ The data items that were collected for each service are listed in parenthesis.

For each of the cable, DSL and wireless services, representative consumer profiles were developed for each service provider by expenditure quintile based on bill samples. Average price changes for each consumer profile and service provider were then calculated, with price changes per service provider weighted by revenue share to give the net price movement for that service type.

In contrast, price changes for dial-up internet services are estimated based on a yield methodology. This reflects the very large number of pricing plans on offer for dial-up internet, and hence the difficulty of selecting the plans to monitor; and the reducing importance of these services to the net internet services index.

8.2 Other methodology issues

8.2.1 Real prices

Price changes in the report are calculated using 'real' prices. This is done by adjusting nominal prices for the effects of inflation using the ABS CPI.

8.2.2 The goods and services tax

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

As a result, the estimated prices paid by business consumers for PSTN services are GST exclusive, while those paid by residential consumers include GST.¹⁷⁹ The prices for mobile services and internet services are GST inclusive, as information was not available to estimate the proportion of these services used exclusively or partly for business.

8.2.3 Quality of service

'Quality' means all the non-price attributes of a product or service and includes performance, reliability and features. The estimates in this report do not take into account the effect of quality changes on price and on consumers' usage of the services, because of the difficulty in quantifying such changes.

The introduction of mobile phones with cameras and mobile internet is a good example of how quality affects price. When these handsets were first introduced, they were more expensive than previous models but offered consumers more features.

If changes in quality are ignored when analysing price changes for telecommunications services, those price changes will probably not reflect pure price changes—that is, price changes where quality remains unchanged. However, an adjustment for a change in quality is difficult to make. The ABS has no satisfactory arrangement for adjusting the prices of these services in the CPI to reflect changes in quality, however significant they are.

Therefore, it is not possible to do anything other than acknowledge that there may be a bias.

¹⁷⁹ As the GST was not in operation in Australia before 1 July 2000, no service prices included a GST component before 2000–01.

8.2.4 Percentage changes and points contribution

The percentage changes in this report are based on changes in the price indexes constructed for each of the services analysed. A complete set of index numbers for the telecommunications services covered is included in the tables in chapter 7. Percentage changes are useful when summarising and analysing price movements over time.

The points contribution of an index component is the number of points a component contributes to the net index in a particular year. For example, analysis might show that, of a 10 percentage point increase in the price index for a certain basket of services, three percentage points are due to an increase in the price of a given individual service. The points contribution of 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 that year. Analysis of points contribution provides an insight into the underlying dynamics in the price of the basket and shows the effects of different price changes within the basket on the index.¹⁸⁰

8.2.5 Record-keeping rules for the Division 12 report

In December 2004, after consulting with industry, the ACCC implemented a record keeping rule (RKR) for the Division 12 report. Under s. 151BU of the *Trade Practices Act 1974* (the TPA), the ACCC has the power to make an RKR by written instrument and require that carriers and carriage service providers comply with it. The rules may specify what records are kept, how reports are prepared and when these reports are provided to the ACCC. The ACCC cannot require the keeping of records unless they contain information relevant to its responsibilities. These responsibilities include the operation of Parts XIB and XIC of the TPA. Under Part XIB, Division 12, s. 151CM(1)(a), the ACCC is required to monitor and report each financial year on charges paid by consumers for telecommunications services.

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

During 2008–09, the ACCC reviewed the scope of the Division 12 RKR. This was to formalise the reporting requirements associated with the provision of data for 3G mobile services and internet services.

¹⁸⁰ ACCC, *Changes in the prices paid for telecommunications services in Australia 1999–2000*.

ACCC contacts

ACCC Infocentre: business and consumer inquiries 1300 302 502

Website: www.accc.gov.au

Small business helpline: 1300 302 021

Small business email address: smallbusinessinfo@accc.gov.au

Callers who are deaf or have a hearing or speech impairment can contact the ACCC through the National Relay Service www.relayservice.com.au

Other publications

You can order publications through the ACCC Infocentre or download electronic copies from the ACCC website.

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 7, Angel Place
123 Pitt Street
Sydney NSW 2000

GPO Box 3648
Sydney NSW 2001

Tel: 02 9230 9133
Fax: 02 9223 1092

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

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
Level 6, Central Plaza
370 Flinders Mall
Townsville Qld 4810

PO Box 2016
Townsville Qld 4810

Tel: 07 4729 2666
Fax: 07 4721 1538

South Australia

Level 2, ANZ House
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 Street
Darwin NT 0800

GPO Box 3056
Darwin NT 0801

Tel: 08 8946 9666
Fax: 08 8946 9600

Tasmania

3rd floor, AMP Building
86 Collins Street
Hobart Tas 7000

GPO Box 1210
Hobart Tas 7001

Tel: 03 6215 9333
Fax: 03 6234 7796

