The Senate

Environment, Communications, Information Technology and the Arts References Committee

Competition in broadband services

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Recommendations

Recommendation 1

The Government should set, in consultation with industry, a ten-year national target for an optic fibre consumer access network roll-out and should invest the necessary regulatory and compliance powers with the Australian Communications Authority to ensure that this target is met (para. 4.69).

Recommendation 2

The Committee recommends that the Government's accepted definitions of ADSL and broadband speeds reflect international best practice standards and should not be determined or overly influenced by product definitions of speed offered by Telstra and other carriers. The Government should review these definitions every twelve months to ensure that speeds remain contemporary (para. 4.70).

Recommendation 3

The Committee recommends that the Productivity Commission be tasked to undertake a full examination of all the options for structural reform in Australian telecommunications, including but not restricted to, the structural separation of Telstra (para. 4.77).

Recommendation 4

The Committee recommends that Telstra be required to divest its shareholding in Foxtel (para. 4.79).

Recommendation 5

The Government should direct the Australian Competition and Consumer Commission to provide further advice on its recommendations in its report *Emerging Market Structures in the Communications Sector* on the feasibility of introducing a content access regime (para. 4.80).

Recommendation 6

The Government should direct the Australian Competition and Consumer Commission to provide further advice on its recommendations in its report *Emerging Market Structures in the Communication Sector* that Telstra be required to divest itself of its HFC network (para. 4.81).

Recommendation 7

The Government should review section 151AKA(10) of the *Trade Practices Act 1974* to determine whether, under some circumstances, it may prevent the Australian Competition and Consumer Commission from acting swiftly to address anti-competitive conduct. Consideration should be given to the necessity and the effectiveness of issuing consultation and competition notices in addressing anti-competitive conduct (para. 4.84).

Recommendation 8

The Australian Competition and Consumer Commission should examine and report on the anti-competitive effects of the current peering arrangements which allow the exchange of traffic between Tier 1 providers on a settlement-free basis and which creates cost disadvantages for smaller ISPs (para. 4.85).

Recommendation 9

The Australian Competition and Consumer Commission should examine the availability of access to, and cost of, backhaul services for carriers building or proposing to build new broadband infrastructure. Consideration should also be given to the high costs of backhaul services in regional and remote areas in light of the fact that distance based charging is not a characteristic of the Internet (para. 4.86).

Recommendation 10

The Committee recommends that the Australian Communications Authority be provided with all of Telstra's current geospatial datasets, and that the Australian Communications Authority make available these datasets on request, in a useable format, to other carriers and ISPs (para. 4.88).

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List of acronyms

ACA	Australian Communications Authority
ACCC	Australian Competition and Consumer Commission
ACIF	Australian Communications Industry Forum
ADSL	Asynchronous Digital Subscriber Line
AUSTEL	Australian Telecommunications Authority
BAG	Broadband Advisory Group
BARN	Building Additional Rural Networks
CAN	Customer Access Network
CBDs	Central Business Districts
CCIF	Coordinated Communications Infrastructure Fund
DCITA	Department of Communication, Information Technology and the Arts
DSL	Digital Subscriber Line
HFC	Hybrid Fibre Coaxial Cable
HiBIS	Higher Bandwidth Incentive Scheme
ISDN	Integrated Services Digital Network
ISPs	Internet Service Providers
Kbps	Kilobits per second
KHz	KiloHertz, (analogue) thousands of cycles per second
Mbps	Megabits per second
NBS	National Broadband Strategy
NBSIG	National Broadband Strategy Implementation Group
NCF	National Communication Fund

NECG	Network Economics Consulting Group
NOIE	National Office for the Information Economy
OECD	Organisation for Economic Cooperation and Development
PGS	Pair gain system
REF	Regulatory Accounting Framework
SME	Small to Medium-sized Enterprises
TA	Telecommunications Act
TA(1991)	*Telecommunications Act 1991*
TEDICORE	Telecommunications and Disability Consumer Representation
TIO	Telecommunications Industry Ombudsman
TPA	*Trade Practices Act 1974*
USO	Universal Service Obligation

Preface

Terms of reference

On 26 June 2003 the Senate referred the following terms of reference to the Committee for inquiry and report by the last sitting day in March 2004:

> (a) the current and prospective levels of competition in broadband services, including interconnection and pricing in both the wholesale and retail markets;
>
> (b) any impediments to competition and to the uptake of broadband technology;
>
> (c) the implications of communications technology convergence on competition in broadband and other emerging markets;
>
> (d) the impact and relationship between ownership of content and distribution of content on competition; and
>
> (e) any opportunities to maximise the capacity and use of existing broadband infrastructure.

The Senate subsequently agreed to the Committee reporting by 12 August 2004 to ensure that it had the opportunity to give full consideration to the matters raised and to adequately take account of some significant developments that arose in the course of the inquiry.

It should be noted that at the time that the Senate had referred the inquiry, the Committee was engaged in a comprehensive inquiry into the adequacy of the Australian telecommunications network, including an assessment of the network's capacity to provide all Australians with reasonable, comparable and equitable access to broadband services. Rather than repeat that discussion, contained in the Committee's report entitled *The Australian telecommunications network* tabled on 5 August 2004 much of which was of a highly technical nature, in this report the Committee has concentrated on the regulatory environment as it relates to competition.

Conduct of the Inquiry

The Committee advertised the inquiry in the national media in July 2003 and also wrote direct to a number of organisations and individuals to invite submissions.

Some fifty-five written submissions were received as cited at Appendix 1.

In order to gain a better appreciation of the issues, the Committee undertook a series of public hearings with some 66 witnesses in Canberra (on three occasions), Sydney,

Nerang and Ballarat. A list of individuals and organisations who gave evidence at these hearings is at Appendix 2.

In the course of the hearings, a number of documents of relevance to the inquiry were formally received by the Committee. These exhibits are detailed in Appendix 3.

The report

The Committee has found its terms of reference as a convenient basis for this report.

In Chapter 1 the Committee introduces the concept of broadband, addressing definitional issues and reviews other reports and inquiries relevant to the terms of reference.

Chapter 2 examines the policy and regulatory framework which has been developed in Australia to encourage competition in telecommunications. The mechanisms of regulations within the telecommunications sector are complex. Chapter 2 of this report provides an overview of these regulations, while additional information on the regulatory bodies themselves is provided in Appendix 4.

In Chapter 3 terms of reference (a) and (b) are examined in relation to the current levels of broadband technology uptake, the current levels of competition in broadband services and any impediments to competition and to the uptake of broadband technology.

Chapter 4 addresses the remaining terms of reference. It first examines communications technology convergence, the relationships between ownership of content and distribution of content and how these issues impact on broadband industry competition, before discussing possible future directions and the opportunities to maximise the capacity and use of existing broadband infrastructure.

Acknowledgements

The Committee wishes to express its appreciation for the cooperation of all witnesses to its inquiry, whether by making submissions, by personal attendance at a hearing or, as in many cases, by giving both oral and written evidence. It stresses that all evidence has been taken into account in the preparation of this report, while noting that it was not possible to cite all evidence in the report.

The Committee also wishes to express its appreciation to those who hosted it during its interstate hearings. Special mention is made in this respect of the Gold Coast City Council who provided the venue for the Committee's hearings in Nerang and to Delfin Lend Lease who hosted the Committee on a tour of its Varsity Lakes mixed use urban precinct, which incorporates state of the art broadband facilities for use by businesses and residents alike.

Finally, the Committee records its appreciation to the officers of the secretariat who assisted with the conduct of the inquiry and the drafting of this report.

Senator John Cherry
Chair

Chapter 1

Introduction

1.1 The development of the Internet and the personal computer have had a significant impact on Australians' use of information and communications technologies. While the emergence of broadband is a relatively new feature, it has the potential to revolutionise the manner in which we use these technologies. As the technology continues to evolve, so do the technology users. Many Australian households and small businesses are beginning to adopt broadband technology, when once it was the preserve only of large institutions in the public and private sectors.

1.2 However, as the Committee found in its inquiry into the Australian telecommunications network[1] many parts of the country, particularly in rural and regional areas but also in some suburban areas on the fringes of the major urban centres, do not have access to broadband Internet services other than those offered by satellite, which is a more expensive option than traditional wireline delivery systems. While infrastructure provision, which was the focus of that inquiry, is a key determinant of accessibility to broadband, in this inquiry the Committee is primarily examining the extent to which competitive forces may also be a contributory factor.

1.3 In this chapter the Committee examines the key overview issues in relation to broadband, describes the various platforms which support broadband, outlines current Commonwealth programs and strategies aimed at improving broadband delivery and access and reviews other reports and inquiries relevant to the terms of reference. This chapter provides the broad framework for Chapter 2, which examines the regulatory framework for competition in the Australian telecommunications industry.

Why is broadband important?

1.4 It is accepted that broadband technologies can deliver significant economic and social benefits to Australia.[2] The Australian Industry Group told the Committee of the economic benefits of broadband and noted that:

> Broadband technologies will be the roads and railways of the 21st century, generating the next wave of economic expansion. Just as transport opened up new economic horizons in the last century, advanced communication networks will pave the way for productivity gains across global economies in the new century.[3]

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1 Senate Environment, Communications, Information Technology and the Arts Reference Committee, *The Australian telecommunications network*, 5 August, 2004.

2 Townsville City Council, *Submission* 15*,* p.2.

3 Australian Industry Group, *Submission 34*, p.14.

1.5 Assuming that broadband is adopted as universally as the telephone over the next 25 years, it has been estimated that broadband technology could produce economic benefits of $12 billion per annum to Australia.[4] Mr Paul Budde told the Committee:

> We estimate that by 2015, $90 billion will be pumped into the economy by economic activities based on broadband. By that time approximately 80 to 90 per cent of our telecommunications will be based on broadband, so we will not have any narrowband telecommunications based on copper cable networks and things like that.[5]

1.6 The Committee heard that Sony Computer Entertainment Australia and Microsoft Australia trialled online gaming packages for release in Australia in 2003 and that the online interactive entertainment industry in Australia was worth $825 million in retail in 2002.[6]

1.7 The Australian Industry Group outlined the benefits of broadband connection to business performance. Almost three-quarters of AIG member firms (73%) who responded to a 2003 September Quarter survey about their use of broadband had indicated that connection to broadband technology had a positive impact on their efficiency and productivity.[7]

1.8 The social benefits of broadband technology cannot be underestimated. The Committee heard that broadband will:

> Change the way we live, work, play, learn, shop, are entertained and how we interact with each other. It was intended to give us remote access to archives, museums, libraries, medical care, employment and government. Services would be delivered across high-speed, high-bandwidth networks and the entirely new "on demand" customised and personalised ways that individuals interact with these services would change our lives significantly. [8]

1.9 Telecommunications and Disabilities Consumer Representatives (TEDICORE), which promotes the interests of people with a disability, also stressed that:

> Telecommunications is vital for effective communication in today's society. Broadband can open up many new possibilities of communication for people with disabilities if the appropriate mechanisms are in place for access

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4 The Institution of Engineers Australia, *Submission 25,* p.3.

5 Mr Budde,*Committee Hansard*, Sydney, Thursday 13 November 2003, p.64.

6 Interactive Entertainment Association of Australia, *Submission 28*, p.1.

7 Australian Industry Group, *Submission 34*, p.14.

8 The Institution of Engineers Australia, *Submission 25,* p.1.

> to be available as for any other Australian. For example, we have a vision that … a Deaf person living in a rural area has equitable access to appropriate communication using broadband services at the cost of a local phone call.[9]

1.10 The Committee fully accepts the potential value of broadband to the Australian community. As it will examine in this report, it is concerned that the goal of making sufficiently fast broadband access widely available to all Australians on an equitable basis may be restrained by elements of government policy and the state of competition in the telecommunications industry.

What is broadband?

1.11 'Broadband' was originally an engineering term referring to the amount of information that could be carried between a sender and a receiver by a communications channel, with the implication that a broadband network can carry a lot more information than the traditional methods of accessing the Internet, typically referred to as 'narrowband' or 'dial up' using a telephone line and modem. There exists little consensus, however, on how exactly to define broadband. Society's notion of how much information is 'a lot', as well as the technologies themselves, are also constantly evolving. For example, Mr Chris Cheah from the Department of Communications, Information Technology and the Arts (DCITA) told the Committee that:

> Broadband tends to be one of those things where there is a fairly long string on some of this stuff and, undoubtedly, it will evolve over time as well. I am sure that in five years there will be all sorts of different views about what is broadband.[10]

1.12 And representatives from the City of Ballarat told the Committee:

> A lot of people do not understand what broadband means. They are bombarded with a lot of different technologies. When they get their service they are underutilised—there may not be enough broadband—or they are given too much. That is certainly an issue with a lot of consumers.[11]

1.13 It has been suggested that broadband is commonly defined as any communication involving a data rate of higher than 250 kb/s, or having a bandwidth exceeding 250 kHz.[12] As discussed in detail in the next section, a broadband service

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9 TEDICORE, *Submission 46,* p.1.

10 Mr Cheah, Department of Communication, Information Technology and the Art, *Committee Hansard*, Canberra, 10 March 2004, p.31.

11 Ms Angeloni, City of Ballarat,, *Committee Hansard*, Ballarat, 5 February 2004, p.5.

12 Mr Moore, *Submission 19*, p.2.

can be supplied by copper or optical fibre cable, as an adjunct to a cable TV service, satellite, or Asynchronous Digital Subscriber Line (ADSL) on conventional phone lines. It is accepted that Integrated Services Digital Network (ISDN) technologies which provide data rates of 64 kbps or 128 kbps do not qualify as broadband technologies. Mr Cheah noted:

> Probably these days 64 kilobits would not be regarded as broadband…. The consensus we have adopted in the HiBIS scheme is to say that broadband is broadly equivalent to current ADSL services being provided in metro areas, which is 256 kilobits per second downstream and 64 kilobits per second upstream.[13]

1.14 The Australian Competition and Consumer Commission's 2002 survey of broadband deployment defines broadband as '... any high speed connection greater than 200 kbits/sec over a mix of media'[14], which is the same definition as used by the US Federal Communications Commission. The Queensland Government defined broadband as that level of bandwidth providing video and audio of sufficient quality for electronic service delivery and e-commerce applications. To date, this has proved to be at least 256,000 bits per second (or 256 kbps).[15] This definition is widely accepted by the Australian market which has defined broadband as including a minimum download transfer rate of 256 kbps.

1.15 Both the Australian Communications Exchange Limited and TEDICORE gave evidence to the Committee which argued the need for a bandwidth which would allow data transition of sign language and other visual communications:

> Consideration needs to the given to the size of uphill and downhill bandwidth to ensure that it is large enough to send and receive video images at a quality suitable for communicating fluently in Sign language. Our research has shown that for effective Sign language or other visual communication via real-time video a bandwidth of at least 128K (eg. for a social chat between two Deaf people), and preferably 384K (eg. for video interpreting), is required.[16]

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13 Mr Cheah, Department of Communication, Information Technology and the Art, *Committee Hansard*, Canberra, 10 March 2004, p.31.

14 Australian Competition and Consumer Commission, *Snap shot of broadband deployment as at 31 March 2002*, URL: http://www.accc.gov.au/telco/statistics/broadband_31mar02.PDF

15 Queensland Government, *Submission 39,* p.3.

16 Australian Communication Exchange, *Submission 12*, p.4.

1.16 Mr Jeffrey Dowsley, of the University of Ballarat argued that broadband should be around 256 kilobits upstream as a minimum and half a 'meg' downstream.[17] For most web browsing, a 256 kbps connection is sufficient. However, as Mr Tom Worthington, Visiting Fellow at the Australian National University's Department of Computer Science, submitted:

> While the ACCC excludes services under 200 kbps from the definition of broadband, the author uses Transact's service in Canberra at 100 kbps. This provides a more than adequate service for home and micro business use.[18]

1.17 Nevertheless, newer gaming applications and larger file transfers will necessitate that broadband speed requirements will need to rise. Therefore, the Committee was told that 256 kbps should be considered the minimum speed classification for broadband.[19] And that in many other countries, broadband services are defined as those exceeding 1 megabit per second.[20]

1.18 A higher speed definition was supported by the Institution of Engineers who argued that second generation technologies dependent upon ADSL, cable modems and certain satellite data connections, at 200 kbps, were not fast enough to be considered broadband. The Institute argued that third generation services with connection speeds of 10 megabits per second (Mbps) or greater would allow for true broadband services.[21]

1.19 In contrast to this somewhat indeterminate discussion about the benchmarking of broadband against certain speed criteria, Telstra defined broadband in terms of its functionality of service (rather than speed) and by an 'always on' capacity. The Committee was told that the Broadband Advisory Group (BAG) Report entitled *Australia's Broadband Connectivity* defined 'broadband' as:

> … the ability of a single access line or wireless or satellite link, connected to a telecommunications network, to provide support for fast, always-on access to digital content, applications and a range of services, some or all of which can occur simultaneously.[22]

1.20 DCITA has suggested that broadband is defined as always-on access with data speeds equal to or faster than 256 kbps (the download speed for ADSL). A broadband

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17 Mr Dowsley, University of Ballarat, *Committee Hansard,* Ballarat, 5 February 2004, p.15

18 Mr Worthington, *Submission 38,* p. 2.

19 Personal Broadband Australia Pty Ltd, *Submission 11*, p.2.

20 Queensland Government, *Submission 39,* p.3.

21 The Institution of Engineers Australia, *Submission 25,* p.1.

22 Telstra, *Submission 21,* p.6.

service can transmit large amounts of data, voice or video over long distances and does not tie up the consumer's telephone line when it is being used.[23]

1.21 While DCITA is clearly comfortable with defining broadband around speeds based on the capabilities of Telstra's ADSL service, that approach proved the basis for some contention. Comindico advised the Committee that:

> Telstra are a very clever organisation …. they have done very well to link ADSL and broadband as the same thing. They are not, and the committee must be made very aware of that. They are very different things. ADSL is a short-term measure that turns copper into a way of carrying larger capacity, but it is not broadband long term. It is a form of broadband, but it is like giving someone a drink of salty water: it will work for a while but it is not really going to go the whole way.[24]

1.22 In fact, Telstra did admit that:

> I think it is right to suggest that ADSL is an interim technology. It is probably the last sweating…of the old copper network assets.[25]

1.23 The issue of speed is, of course, relative to the needs of the user, but concerns have been expressed that some network providers are artificially restricting data transmission speed, with differences between claimed and actual capabilities. The Australian Telecommunications Users Group told the Committee that this practice has a detrimental effect on the uptake and possible applications of broadband:

> There is no extra cost to any network provider to increase the available upstream line rate from the current restricted offerings, and this would be a large benefit to broadband users of interactive applications and content providers. All Broadband Access Network Operators should be encouraged to offer a greater range of access speeds, particularly a greater range of upstream line speeds (or leave the upstream direction "unthrottled") to enable effective content/service provision and interactive applications to be used effectively on broadband networks.[26]

1.24 Mr Roger Nicoll, from Primus, similarly told the Committee that Telstra has technology that could provide faster synchronous services or a variety of services but had chosen to provide 256 kbps, 512 kbps, one or two meg services:

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23 Department of Communications, Information Technology and the Arts, URL: http://www.dcita.gov.au/Article/0,,0_1-2_3-4_102256,00.html#9

24 Comindico, *Committee Hansard*, Canberra, 12 November 2003, p.10.

25 Dr Tony Warren, Telstra, *Committee Hansard*, Canberra, 12 November 2003, p.74

26 Australian Telecommunications Users Group, *Submission 33a*, p.4.

> [Telstra] are not providing ADSL at its full speed capability, which is six megabits per second out to 3½ kilometres, which I understand would serve 80 per cent of subscribers at that sort of speed. Currently the maximum speed is only 1.5. So why they are not doing that is clearly a market strategy decision. My personal opinion is that, probably on both counts, it is because the higher speed services would be suitable for larger business customers and maybe they are trying to avoid losing what are higher revenue services from a historical offering of leased line type products.[27]

1.25 The Committee is concerned that Telstra appears to have sufficient market dominance to arbitrarily set the speed of ADSL download at 256 kbps and at a distance of 3.5 km from the exchange. However, the Committee is more alarmed by the fact that DCITA and the Government appear to be captured by Telstra in endorsing speeds at which Telstra are prepared to offer broadband services.

1.26 The Committee does not see particular merit in any definition of broadband that has the effect of narrowing its applicability, especially when certain definitions are seen as serving the interests of one company over another. It is also persuasive that an expert of Tom Worthington's standing argues that a speed of as low as 100 kbps is of an acceptable standard for many broadband users. The Committee accepts suggestions that it is the combination of both speed and an 'always on' function which are the definitional parameters of what constitutes broadband.[28] This is best summarised by the definition of the former National Office for the Information Economy (NOIE), as highlighted by Uecomm in its submission:

> NOIE defined broadband as the "term used for any kind of fast Internet access. Broadband is designed to give a business or residential user instant Internet access 24 hours a day."[29]

Broadband technology

1.27 The Committee received considerable evidence about the advantages and disadvantages of the different broadband technologies. The Institution of Engineers Australia, provided the following comprehensive overview of the variety of methods by which broadband telecommunications can be delivered to the end user.

- ***Existing copper telephony network***: The most common technique being used is an Asynchronous Digital Subscribers Line or ADSL, which is limited to delivering broadband services to customers located within a few kilometres of the telecommunications carrier's exchange or broadband distribution point. As a result, the service is not available to more distant

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27 Primus, *Committee Hansard*, Ballarat, 5 February 2004, p.49.

28 Bits on Light, *Submission 23,* p.1

29 Unecomm*, Submission 42*, p.4.

customers. The existing telephone network also includes electronic pair gain devices that do not support ADSL and telephone customers on these pair gain systems cannot be supplied with a broadband service via ADSL.

- ***Optical fibre:*** While the medium has proved extremely reliable, very few business or residential premises are connected to an optical fibre network. Final access distribution can be provided by other solutions including twisted copper pair (DSL), powerline communications (PLC) and wireless local loop, which can provide quite high data rates over short distances. The installation of individual fibres to every customer would be prohibitively expensive and would entail the duplication of the existing copper network. The use of optical splitters/combiners to allow a single or small number of fibres to service a large number of customers is a potential solution that is yet to be used as a standard method of construction.

- ***Geostationary or Low Earth Orbit (LEO) Satellites***: Currently this technology can supply broadband to a relatively small number of customers at a substantial cost. Geostationary satellites also have the drawback of introducing a propagation delay into each link. Both satellite systems have the ability to service a relatively small number of remote and difficult to reach customers. Some recent developments in "high power" geostationary satellites (eg IPStar) and very small aperture satellite earth stations (VSATs) suggest that opportunities for satellite broadband are promising. Although not commercially attractive, this technology can be useful to service customers in rural and remote Australia, as part of the overall broadband mix.

- ***Power Line Carrier Systems:*** The widespread distribution of power line infrastructure together with its ability to provide final distribution from optical fibre provides an opportunity for using this technology. It can be used over relatively short distances often on existing power line infrastructure and provide a simple and cost effective method of distributing broadband, particularly in areas where there is electrical power distribution but no telecommunications cabling.

- ***Existing mobile phone infrastructure:*** Originally installed to provide a narrowband service, mobile phone infrastructure has the potential to provide a level of broadband service without expensive infrastructure upgrades or the degradation of service to narrowband customers. This method is attractive for future generations of mobile phone services and user equipment when functions of laptop computers and personal digital assistance (PDAs) converge into mobile phones. Currently, it is simply too expensive for all but a small minority of mobile users. It should also be noted that while cost and spectrum availability may constrain broadband mobile data, network security and useability may be a greater constraint.

- ***Cable TV infrastructure:*** This is already delivering broadband data services to customers within the reach of cable TV infrastructure. However, the availability of cable TV has been limited to small parts of some major cities which limits the area that this technology can serve. The likelihood of the cable TV network being extended is very remote given the financial status of this industry and the prospect of Internet services delivering video in real time.

- ***Terrestrial radio distribution infrastructure***: This technology was established specifically for broadband distribution and is already delivering Internet access in limited areas. There are a variety of radio based broadband technologies available, with some having a range of a few metres, while others have coverage measured in kilometres. Existing radio infrastructure, including microwave and TV broadcast towers can support this type of technology. However, many more radio sites will be needed to provide effective coverage and service levels. [30]

1.28 There is considerable debate about the future of the existing technology and the Committee discusses technology convergence in Chapter 4 of this report. The Committee heard evidence from a number of telecommunications engineers whose technical expertise was invaluable to the Committee's understanding of the issues. It trusts that the technical solutions proposed in their submissions will be investigated by those both in government and in the telecommunications industry. Mr Malcolm Moore, with some 35 years technical experience in the industry, told the Committee that:

> There is a technology convergence between the CAN and the IEN/IPN for their respective transmission mediums, and they will converge onto Optical Fibre for the mainstream with a small portion on SHF radio. Mobiles will continue to use SHF radio as their medium.
>
> Copper will no longer be the medium of telecommunications choice in either IEN/IPN or CAN areas and will need to be replaced because of age issues and bandwidth requirements by optical fibre in the very near future.
>
> Optical Fibre has the capability of combining CATV, Broadband Internet, and multiple telephony circuits to every Australian residence within 70 km of a 'local' exchange / Central Office.[31]

1.29 The Committee heard from Mr Duncan Raymont, a telecommunications engineer with some 30 years experience, who argued the importance of developing technology to deliver broadband telecommunications:

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30 The Institution of Engineers, Australia, *Submission 25,* pp.2-3.

31 Mr Malcolm Moore, *Submission 19*, p.7.

> Telecommunications is poised to make another giant step forward. The introduction of widespread broadband telecommunications is as significant as the step from telegraphy to telephony. The successful introduction of widespread broadband telecommunications into Australia is essential if we are to prosper in the 21st century…. The technology is available for the telecommunications and electronic media industry to be opened up to many new operators. These small, new players will have the vigour and flexibility to inject new life into these industries. They are more likely to provide Australia with a 21st century communications system that the established players who want to retain a 20th century communications system where they are dominant.
>
> There are a variety of technology options available. The use of appropriate technology to provide the best solution in any given case should be promoted wherever possible. Restrictions on the type of services carried on the broadband network should be limited to technical issues such as safety and service quality. Restrictions based on the competition that new services on the broadband network will provide to other existing services should be vigorously opposed.[32]

Related inquiries and reports

1.30 A number of significant reports into the current Australian telecommunications landscape have been produced in recent years. The Committee found that several of these reports were relevant to its inquiry.

Emerging market structures in the communications industry

1.31 In March 2002 the Minister for Communications, Information Technology and the Arts, Senator Alston, tasked the Australian Competition and Consumer Commission (ACCC) with investigating the extent to which emerging market structures were likely to affect competition across the communications sector. Competition in pay TV, the implications for competition of bundling TV, telephony and broadband services and competition in the provision of consumer reception equipment was of particular importance to the investigation.

1.32 The ACCC's report found that Telstra's continuing domination of the telecommunications market had significant implications for market competition and hence efficiencies, innovations and customer benefits. The report made a number of key recommendations:

- That Telstra should be divested of its HFC cable network and its 50 per cent share in Foxtel.

32 Mr Duncan Raymont, *Submission 18*, p.10.

- That the Government conduct an 'across-the-board' review of the regulations applying to the media sector, in particular those that have a direct impact upon competition.

- That the Government introduce legislation to increase access to pay TV content for broadband networks.

- No amendments be made to current legislative provisions that apply to bundling conduct. However, it is recommended that where pay TV services are provided as part of a bundled telecommunications offering, the Telecommunications Industry Ombudsman be given jurisdiction to investigate complaints about the provision of the pay TV service.[33]

1.33 The Committee considers many of these key recommendations in Chapter 4.

Broadband Advisory Group

1.34 Also in March 2002, the Federal Government established a Broadband Advisory Group (BAG) to provide advice on the development of the broadband market in Australia. The group was asked to provide advice on:

- appropriate ways to measure broadband take-up and success;

- current impediments to, and likely drivers of, broadband take-up, particularly in key productivity sectors such as small business, education, health and community services;

- possible policy solutions to current and emerging challenges on both the supply-side and demand-side of the broadband issue;

- market based strategies for raising broadband awareness, particularly in key productivity sectors;

- strategies to encourage the development of marketable applications that will facilitate broadband take-up in key productivity sectors;

- emerging technologies and new business models for delivering broadband services, as requested; and

- issues that are likely to emerge as the Australian broadband market develops.

33 Australian Competition and Consumer Commission, *Emerging market structures in the communications sector*, 2003, p.xx.

1.35 The report focused on education, health and government services across rural and regional Australia. It recommended that the Government adopt a national vision for broadband and made a series of recommendations which included:

- Australia should adopt the goal of broadband being available to all Australians at fair and reasonable prices;
- the Government should adopt a National Broadband Strategy;
- the Government should establish a National Broadband Strategy Implementation Group;
- the Government should consider initiatives to develop services that may not be commercially viable, but which could potentially deliver significant economic, security and social benefits. These should predominately focus on rural and regional Australia;
- all tiers of government should co-operate to develop demand aggregation strategies;
- all schools and educational institutions should be connected to broadband Internet services;
- the Government should give high priority to stimulating the digital content industries in Australia; and
- the Government should require the ACCC to monitor and report on progress in ensuring an open, competitive and interoperable broadband market.

1.36 In response to the BAG report the Commonwealth Government announced a National Broadband Strategy with funding of $142.8 million over four years. This will support a program of demand aggregation brokers, a Coordinated Communications Infrastructure Fund (CCIF) requiring matched dollar-for-dollar State funding, and a Higher Bandwidth Incentive Scheme (HiBIS) which will subsidise the provision of broadband services in rural and remote areas. These are outlined in greater detail below.

Wireless Broadband Inquiry

1.37 On 15 April 2002 the Minister for Communications, Information Technology and the Arts, Senator the Hon Richard Alston, referred an inquiry into wireless broadband to the House of Representatives Standing Committee on Communications, Information Technology and the Arts. The Committee was asked:

> To inquire and report on the current and potential use of wireless technologies to provide broadband communication services in Australia, including regional Australia.

1.38 The Committee found that:

> No wireless broadband technology is able to handle the data rates of the best wire-line technologies but there are many situations where the latter cannot yet be used or is simply unavailable (such as in remote and regional areas, and even in some suburban metropolitan areas) [and that] the solution to the 'last mile' service involves a mixture of technologies, both wire-line and wireless. Clearly, however, for regional and remote Australia where wire-line solutions are not economically viable in the short to medium term, the last mile problem could be addressed by a variety of wireless techniques.[34]

1.39 The Committee made 14 recommendations which dealt with:

- improving access to spectrum for wireless broadband applications;
- educating prospective wireless operators about the market and the regulatory environment;
- examining the regulatory environment to ensure that wireless ISPs have access to the Internet backbone; and
- facilitating wireless broadband access for the hearing impaired.

Connecting Regional Australia (The Estens Report)

1.40 On 16 August 2002 the Minister for Communications, Information Technology and the Arts, Senator Richard Alston, established the Regional Telecommunications Inquiry (the Inquiry), to assess the adequacy of telecommunications services in regional, rural and remote Australia, and to advise on a number of other policy issues as set out in specified Terms of Reference.

1.41 The Terms of Reference required the Inquiry to consider and report on two key areas:

- A detailed assessment of the adequacy of telecommunications services to regional, rural and remote Australia, and
- Advice on whether, and if so what, arrangements should be put in place to address some specific policy concerns identified by the Government relating to:
    - The delivery of Internet services at 64kbps or better and wireless-based technologies in regional, rural and remote Australia.

34 House of Representatives Standing Committee on Communications, Information Technology and the Arts, *Connecting Australia! Wireless Broadband*, November 2002, p xi.

- The current provision of legislated consumer safeguards including the Universal Service Obligation, the Customer Service Guarantee, untimed local calls and the Telecommunications Industry Ombudsman and whether further action is required to ensure these safeguards are enforced into the future.

- The ongoing commitment of Telstra to a local presence (such as Telstra Country Wide) in regional, rural and remote Australia.

- The most effective means by which the Government can ensure that people in regional, rural and remote Australia can share reasonably equitably—in terms of availability and cost—with residents in metropolitan Australia in the benefits of future advances in telecommunications services resulting from competition and new technologies.[35]

1.42 In regard to Internet service the report found:

- Access to higher bandwidth services is becoming vital for the economic and social development of regional, rural and remote Australia.

- Since the TSI report, the commercial provision of higher bandwidth services has expanded considerably, with services delivered over a range of platforms and through a number of competing providers.

- The Government has provided support, through a variety of policy and program initiatives, to improve access to higher bandwidth services in regional, rural and remote areas.

- The major impediment to regional, rural and remote Australians having equitable access to higher bandwidth services is the higher prices that users in some areas pay for these services.

- The Government should investigate whether the timeframes for connection and repair of ISDN services that are required under the Digital Data Service Obligation should be more closely aligned with regulated timeframes applying to telephone services.

- Some Telstra pricing arrangements for ISDN services seem discriminatory, and would appear to unduly favour Telstra over other providers. This should be brought to the attention of the Australian Competition and Consumer Commission.

35 Department of Communications, Information Technology and the Arts, *Connecting Regional Australia, The Report of the Regional Telecommunication Inquiry*, 2002, p.4.

- The Government should establish an incentive scheme for the provision of higher bandwidth services to regional, rural and remote areas, to enable all Australians to have access to services at prices comparable to those prevailing in metropolitan areas. A preferred model for the scheme is provided in this report.

- The Government should provide further support to communities to undertake demand aggregation strategies, and other activities that would support the take-up of higher bandwidth services. Support should also be considered to assist consumers and small businesses to make effective use of higher bandwidth opportunities.[36]

1.43 On 25 June 2003, the Australian Government announced its response to the report of the Regional Telecommunications ('Estens') Inquiry (RTI). The Federal Government accepted all the 39 recommendations of the Inquiry and allocated $181 million to the response. Of significance to this Inquiry was the commitment to:

- obtain a formal undertaking from Telstra on how it will improve, as soon as possible, the quality of phone services affected by pair gain systems. Telstra will also provide an undertaking on how it is addressing dial-up data speed issues on these systems. Pair gain and other similar systems were installed for voice telephony purposes but can be deficient for the provision of advanced voice services, dial-up Internet speeds and access to broadband. Telstra's formal undertakings will include timeframes, and will be monitored and reported on publicly by the Australian Communications Authority (ACA);

- develop a National Broadband Strategy (NBS) with funding of $142.8 million over four years. A National Broadband Strategy Implementation Group (NBSIG) was developed to oversee the Strategy, with Federal Government funding of $2.9 million; and,

- the establishment of demand aggregation brokers, the Coordinated Communications Infrastructure Fund (CCIF) and Higher Bandwidth Incentive Scheme, discussed below, key initiates under the NBS.[37]

1.44 The Regional Telecommunications inquiry found that services were broadly adequate except for two areas. During Senate estimates hearings in May 2004, Mr Chris Cheah, the General Manager of Telecommunications within DCITA told the Senate Environment, Communications, Information Technology and the Arts Legislation Committee that:

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36 Department of Communications, Information Technology and the Arts, *Connecting Regional Australia. The Report of the Regional Telecommunications Inquiry*, 2002, pp.xii – xxviii.

37 The Governments response to the *Report of the Regional Telecommunications Inquiry,* URL: http://www.dcita.gov.au/Article/0,,0_1-2_3-4_115317,00.html

> The RTI's chief finding was that services were adequate apart from two things which needed to be done. Those were that we needed to make the Internet Assistance Program a licence condition and impose that on Telstra—that has been done—and that the ACA immediately apply its network reliability framework to the worst performing exchange services areas, and the ACA has also done that. I think the view would be that the basic adequacy findings have been met. From hereon in it is a matter of doing some enhancement of existing services and starting to tackle some of the emerging issues before they become pressing.[38]

Commonwealth broadband programs[39]

1.45 The Department of Communications, Information Technology and the Arts (DCITA) administers the policy framework for Internet and broadband services. As stated above, central to this policy framework is the National Broadband Strategy, launched in March 2004, which is a $142.8 million program focussed on the broadband needs of regional Australians and undertaken in partnership with all levels of government.

1.46 The key elements of the strategy are:

- $2.9 million over four years for a national coordination mechanism, the National Broadband Strategy Implementation Group;
- $107.8 million over four years for the Higher Bandwidth Incentive Scheme (HiBIS);
- $8.3 million to support demand aggregation in regional Australia through funding of demand aggregation brokers; and
- $23.7 million in catalytic funding over four years to accelerate the roll-out of broadband into regional Australia using key sectors such as health education and local government as anchor tenants.

National Coordination

1.47 The National Broadband Strategy seeks to ensure that broadband investment across all levels of government will be coordinated with regional priorities and the needs of key sectors such as health and education, while also providing a national focus to all activities. It is anticipated that this will lead to:

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38 Mr Chris Cheah, Department of Communications, Information Technology and the Arts, Senate Budget Estimate, *Committee Hansard*, Canberra, Monday 24 May, 2004, p.114.

39 Department of Communications, Information Technology and the Arts, URL: http://www.dcita.gov.au/Article/0,,0_1-2_3-4_115486,00.html

- the wide distribution of best practice in broadband development and procurement;
- improved outcomes in terms of services and prices for regional broadband access;
- the development of national broadband infrastructure assets; and
- focusing of resources towards areas that will not be adequately served by the market within a reasonable time period.

1.48 All States and Territories are represented on the National Broadband Strategy Implementation Group, which has played a critical role in developing the Strategy and will continue to play a vital role as it is implemented. Only the Victorian Government had failed to endorse the National Broadband Strategy at the time of preparation of this report.

Higher Bandwidth Incentive Scheme

1.49 The Higher Bandwidth Incentive Scheme (HiBIS) makes available a financial incentive to service providers to offer broadband services in rural and remote areas at prices reasonably comparable with those available in urban areas. $107.8 million in funding has been allocated to the HiBIS over four years. Funds unallocated under the Building Additional Rural Networks (BARN) program funding of $35 million will be transferred to the HiBIS and other National Broadband Strategy initiatives.

1.50 Mr Simon Bryant from the Department of Communication, Information Technology and the Arts told the Committee that HiBIS was:

> An incentive program that is very broadly based, has very broad objectives to provide equity for consumers and is intended to provide opportunities across the industry and is a multi-provider scheme, in a sense the HiBIS program will be an important part of the market in regional and rural Australia.[40]

1.51 In May 2004 Telstra announced that, with the assistance of HiBIS funding, it had been able to halve the number of customers needed under its ADSL Broadband Register before the enabling of exchanges became viable.[41]

Demand Aggregation Strategies

1.52 Demand aggregation is a process which coordinates demand at a regional level so that there is a viable business case for rolling out infrastructure to areas that may

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40 Mr Bryant, Department of Communication, Information Technology and the Art, *Committee Hansard*, Canberra, 10 March 2004, p.28.

41 Telstra, *Broadband boost to the bush,* media release, 4 May 2004.

not otherwise receive broadband services. Public services such as health, education and local government are recognised as key anchor tenants for demand aggregation strategies. The result of investment supported by these anchor tenants is improved connectivity for the wider community. A representative from the then National Office for the Information Economy told the Committee that the strategy relies on a network of demand aggregation advisors and brokers:

> The Demand Aggregation Broker Program operates in three distinct but related areas. The first area is national broadband advisers for health and education, the second area is state based demand aggregation brokers and the third area is community demand aggregation broker grants. Two national broadband advisers will be engaged to focus on multijurisdictional broadband initiatives in health and education. The advisers will develop sectoral broadband strategies to improve broadband access and application in consultation with relevant agencies and institutions.[42]

1.53 The Government will contribute $8.4 million towards the funding of a network of Demand Aggregation Brokers. Specialist demand aggregation brokers will work with rural and regional communities and across all levels of government to aggregate demand from different users in a particular geographic area, thereby creating a business case for investment in broadband services.

Coordinated Communications Infrastructure Fund (CCIF)[43]

1.54 In October 2003, the Government announced that it had allocated $23.7 million to the Coordinated Communications Infrastructure Fund (CCIF), as part of its response to the Regional Telecommunications Inquiry. The CCIF will build on the Australian Government's $50 million National Communications Fund (NCF).

1.55 Mr Grant from the then National Office for the Information Economy told the Committee:

> Unlike HiBIS … the CCIF and the Demand Aggregation Broker programs are not entitlement based. Applications are assessed against a number of selection criteria…. The CCIF aims to encourage further investment in broadband infrastructure in rural and regional areas by funding selected projects. This infrastructure will support improvements in the delivery of health, education, government and other services that will lead to significant economic and social outcomes.[44]

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42 Mr Grant, National Office for the Information Economy, *Committee Hansard*, Canberra, 30 March 2004, p.2.

43 National Office for the Information Economy, website accessed 23 March 2004, URL: http://www.noie.gov.au/about/index.htm#overview.

44 Mr Grant, National Office for the Information Economy, *Committee Hansard*, Canberra, 30 March 2004, p.1.

1.56 Of the total allocation $21.988 million is available for CCIF payments with the balance of the funding used to administer the program. CCIF funding is available in the four years commencing 2003-04. The minimum amount of funding per proposal is $500,000, with the maximum being $2 million unless exceptional circumstances can be demonstrated. CCIF funding must be at least matched by funding from sources other than the Australian Government.

1.57 On 20 April 2004, the then Communications Minister, the Hon Daryl Williams MP, announced a series of projects under CCIF. These included:

- a fibre optic cable running from the Charles Darwin University in Alice Springs through the MacDonnell Ranges to a number of institutions;
- a broadband infrastructure project for 12 communities in the Ngaanyatjarra Lands in Western Australia;
- microwave broadband through the Yorke Peninsula of South Australia and the linking of 12 towns in far north Queensland to broadband; and
- a 'last mile' infrastructure project that will bring broadband to 16 towns in Far North Queensland.[45]

Concerns about government programs

1.58 The Committee heard evidence critical of the Commonwealth Government's various broadband programs. Networking the Nation (NTN) is a $180 million program established in 2002 to assist the economic and social development of rural Australia. The program funds projects which:

- enhance telecommunications infrastructure and services;
- increase access to, and promote use of, services available through telecommunications networks; and
- reduce disparities in access to such services and facilities.[46]

1.59 The Committee was told that:

> It is my belief that the so-called ***'Networking the Nation'*** has resulted in an immense waste of otherwise useful resources that could have gone directly into building and maintaining the network. In all cases each interested group

45 Minister for Communications, Information Technology and the Arts, Media release, *Broadband boost for rural and remote Australia*, 20 April 2004. URL: http://www.dcita.gov.au/Article/0,,0_7-2_4011-4_118311,00.html

46 Department of Communications, Information Technology and the Arts, URL: http://www.dcita.gov.au/Article/0,,0_1-2_3-4_106337,00.html

> had to provide a bid submission (with their very limited knowledge) and in that, produce a business case to 'justify' their immediate service requirement. The reports have shown that a portion of successful bids have gone to social clubs and entities that included the almost key word 'communication' but omitted the actual key words 'network' linked with 'telecommunications'…. Further the processes of advertising, lobbying, extensive meetings, document production and presentation, all combine to drain the resources from the essential core; that of providing a highly functional telecommunications network in Australia. This ***'Networking the Nation'*** was in my opinion a farcical waste of resources and manpower that was maybe well intentioned but ill directed and managed because there seemed to be no overall engineering plan to co-ordinate and standardise the overall program.[47]

1.60 Neighborhood Cable submitted that:

> The federal government has made available pools of funding for the development of regional telecommunications. But for many reasons this has not delivered any tangible benefit to regional Australia and has not improved access to broadband services. Funding generally goes to community groups or non-profit bodies, but these groups do not support a business case or provide any services to consumers. The result is that funding given to these groups invariably finds its way back to Telstra for the sole purpose of improving its mobile phone coverage.[48]

1.61 The Gold Coast City Council was critical of its exclusion from programs designed to redress inequalities in rural and regional areas:

> Gold Coast City Council considers the present Federal policies and programs that address broadband supply and demand impediments, and which currently exclude the City, are based on a lack of understanding of the broadband needs of the City. The National Broadband Strategy is a national agenda and cannot be exclusively regional and rural focused.[49]

1.62 However, a representative from the then National Office for the Information Economy told the Committee:

> I think there might be some confusion, because they [the Gold Coast] are excluded from the Broadband Demand Aggregation Broker Grants program because of the HiBIS lines, but they are not excluded from CCIF…. The intent of the program is to deliver services where they may be not delivered

47 Mr Moore, *Submission 19*, p.9.

48 Neighborhood Cable, *Submission 49*, p.7.

49 Gold Coast City Council, *Submission 41*, pp.9-10.

> in the normal course of events in the near future, so more populated areas are in fact more likely to get services than less populated areas.[50]

1.63 Mr Paul Budde was perhaps the most dismissive of the Government's approach:

> If you look at HiBIS, which this government has implemented, it is like investing $180 million in the steam train; it is not investing in new infrastructure. We have to look at new infrastructure that actually allows us to build this knowledge based society and that creates an economic backbone that companies can build on. But what are we doing? It is as if we are putting more money into steam train systems.[51]

1.64 The Committee is concerned about Telstra's propensity to access Commonwealth funds, such as HiBIS, to subsidise the installation of services which Telstra should be providing on a commercial case basis. Additionally, the use of these funds by Telstra enhances the company's monopoly position in regional and rural Australia and significantly hinders future broadband competition in these areas.[52] Telstra's purchase of the IP1 fibre optic network which runs from Melbourne via Adelaide, Kalgoorlie and Perth to Bunbury is argued to be an example of Telstra's ability to access government funding for infrastructure roll-out, Dr Green said:

> It has killed [competition] stone dead. I have been in discussions with the Western Australia Internet Association, and their view is that, without that independent infrastructure, the higher bandwidth incentive scheme, the aggregation facilities, are basically useless in WA. It is a case of another way of handing money to Telstra.[53]

1.65 The Committee addresses these issues in Chapter 3.

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50 Ms Anne-Marie Lansdown, National Office for the Information Economy, *Committee Hansard*, Canberra, 30 March 2004, pp.4-5.

51 Mr Paul Budde, *Committee Hansard*, Sydney, 13 November 2003, p.59.

52 Senate Economics Committee, Senate Budget Estimates, *Committee Hansard*, Canberra, May 24 2004, pp.122 – 123.

53 Dr Green, Communications Expert Group, *Committee Hansard*, Canberra, 12 November 2003, p.34.

Chapter 2

Policy, regulation and competition[1]

Introduction

2.1 Reform of Australia's monopoly telecommunications sector began in the last decades of the twentieth century with the Telecommunications Acts (TA) of 1989, 1991 and 1997.

2.2 The process of competition development was slow, due largely to the presence of a dominant incumbent involved in both wholesale and retail telecommunications service markets, and the high risks and entry costs for facilities-based competitors. This environment ensured significant government involvement in regulation and the reform process.[2] As argued by one commentator:

> In Australia, as in many parts of the world, telecommunications services were provided primarily by a government-owned and operated monopoly until the latter part of the twentieth century. As those monopolies have been dissolved and new participants have entered telecommunications markets since the 1980s, a major policy task has been to ensure that those markets operate competitively. A critical part of that task has been to address the competitive advantages enjoyed by incumbents former monopolists, and to address issues arising when operators other than the incumbent exercise market power. Thus in Australia, as in other developed markets, the primary regulatory focus has been on restraining the exercise of market power by the incumbent network operator – in this case, Telstra.[3]

2.3 This chapter provides an overview of the policy and regulatory framework which developed in Australia to encourage competition in telecommunications. It examines current access regimes and regulations to address anti-competitive conduct and reviews recent episodes in which the ACCC found Telstra may have acted in an anti-competitive manner in regard to its wholesale pricing of high-speed Internet services and ADSL.

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1 The chapter draws heavily from *Australian Telecommunications Regulation (3ed.)* Alasdair Grant (ed.), UNSW Press, 2004.

2 Alasdair Grant & David Howarth, The Access Regime, in *Australian Telecommunications Regulation (3ed.)* Alasdair Grant (ed.), UNSW Press, 2004, p.87.

3 David Stewart, Anti-competitive Conduct, in *Australian Telecommunications Regulation (3ed.)* Alasdair Grant (ed.), UNSW Press, 2004, p.158.

Transition to competition

2.4 Competition in the telecommunications sector began with the *Telecommunications Act 1989,* which opened 'value added' services and private networks to competition, yet which allowed the then Telecom to retain its monopoly over basic telephony services to ensure that services were delivered to regional and remote areas. Under this Act AUSTEL was established as an independent regulator to oversee this process and report on areas of further competition.

2.5 The transition from a monopoly network to open competition was set to occur between 1991 and 1997. The *Telecommunications Act 1991* broadened facilities-based competition as a limited number of carriers were granted 'exclusive rights' to enable them to roll-out new networks, recover some capital costs, and establish retail customer bases. These exclusive rights were given to carriers, as opposed to non-carriers, who were recognised as the 'primary providers' of basic telecommunications and satellite services. These carriers were permitted to discriminate in favour of themselves in the provision of services over their infrastructure. Under TA 1991, AUSTEL'S powers were expanded to allow it to address issues of competition and consumer protection, universal service arrangements and the access to carriers' networks by other carriers and services providers.

2.6 The liberalisation of Australian telecommunications markets proved contentious however:

> Between 1991 and 1997, many regulatory struggles were fought about competition issues, including those concerning Telstra's disputed continuing dominance of the mobile telephony and international services market; retail prices discrimination by Telstra; cross-subsidisation within Telstra's business units; and the pace of development of the service industry.[4]

2.7 The struggles which were being fought over telecommunications competition coincided with a national debate about competition policy more generally. In 1993 the Inquiry into Competition Policy in Australia (the Hilmer Report) argued that competition was critically important to Australian industry and it recommended that trade practices law be broadened in order to achieve a coherent and consistent regulatory framework which could apply across the whole economy.

2.8 In April 1995 the Australian, State and Territory governments agreed to a program of competition policy reform known as the National Competition Policy (NCP), a coordinated and systematic set of measures aimed at encouraging greater competition across large parts of the economy over (originally) a six-year timeframe. State governments took measures to introduce competition into their public utilities

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4 Holly Raiche, The Policy Context, in *Australian Telecommunications Regulation (3ed.)* Alasdair Grant (ed.), UNSW Press, 2004, p. 9.

companies, such as gas, water, and electricity. Similarly, the Commonwealth sought to apply the Hilmer Report's recommendations to sectors over which it had jurisdiction, such as telecommunications. The Commonwealth had already been moving in this direction with TA 1991, however, the report was critical of this process and of the application of the *Trade Practices Act 1974* to telecommunications.

2.9 The Hilmer Report also recommended that the Trade Practices Commission and the Prices Surveillance Authority should merge to form the Australian Competition and Consumer Commission (ACCC), and that trade practices laws introduce an access regime for essential facilities under the *Competition Policy Reform Act 1995*.[5] The ACCC also took over from AUSTEL as the regulatory agency responsible for telecommunications competition.

Open competition

2.10 The key object of the 1997 reforms was to promote open competition in telecommunications services by abolishing legislative barriers to market entry and service provision. Importantly, the *Telecommunications Act 1997* removed much of the 'exclusive rights' which had benefited a number of carriers under TA 1991 and diminished the distinction between carriers and service providers.[6]

2.11 The Act developed a means of differentiating carriers from carriage service providers. Carriers were defined by ownership or control of transmission infrastructure that they or others used to supply carriage services to the public. Service providers were defined as users of carrier infrastructure to supply services to the public. However, these concepts were no longer mutually exclusive as they had been under TA 1991:

> Most carriers also operate as service providers by using their own infrastructure to supply services to the public; that is, by operating as vertically integrated operators in both access (upstream) and retail markets…. Service providers include both carriers and non-carriers. This simplifies the regulatory structure.[7]

2.12 Open competition in the telecommunications sector came into force on 1 July 1997, with a movement in emphasis from an 'industry-specific regulator administrating industry-specific regulation, towards a general regulator enforcing an access regime based upon general competition principles'.[8] The Act also enhanced

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5 Holly Raiche, The Policy Context, in *Australian Telecommunications Regulation (3ed.)* Alasdair Grant (ed.), UNSW Press, 2004, p.10.

6 Alasdair Grant, Industry Structure and Regulatory Bodies, in *Australian Telecommunications Regulation (3ed.)* Alasdair Grant (ed.), UNSW Press, 2004, p.23.

7 ibid, p.24.

8 ibid, p.87.

jurisdictional powers for the Telecommunications Industry Ombudsman (TIO), an industry funded dispute resolution scheme, to investigate unresolved complaints about the carriage of services.

2.13 As at June 2001 membership of the TIO included:

- 54 carriers;
- 909 Internet service providers.[9]

2.14 By April 2004 membership had remained relatively static with:

- 54 carriers; and
- 992 Internet service providers.[10]

2.15 While the number of ISPs is slowly increasing the static number of carriers suggests that open competition at the infrastructure level may be problematic.

Telecommunications competition regulation

2.16 It has been argued that:

> Early in the liberalisation process, there was a widely held view that regulation would be a temporary feature of competitive telecommunications markets. That view now seems overly optimistic. Both international and Australian experiences, coupled with a growing appreciation of the systemic features giving rise to market power in telecommunications markets, suggests that regulatory intervention will be an ongoing requirement for these markets to operate effectively.[11]

2.17 Australian telecommunications is subject to industry-specific regulations anti-competitive conduct. The two key regulatory instruments, within the TPA, aimed at increasing effective competition in telecommunications are:

- A telecommunications-specific access regime (Part XIC) that provides for access to telecommunications infrastructure; and

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9 Productivity Commission, *Telecommunications Competition Regulation, Inquiry Report No. 16*, September 2001.

10 Telecommunications Industry Ombudsman, website at 7 April 2004, URL: http://www.tio.com.au/Members/Default.htm. The Australian Communications Authority issues carrier licences. By the end of April 2004 it had issued 133 licences of which 105 remained current.

11 David Stewart, Anti-competitive Conduct, in *Australian Telecommunications Regulation (3ed.)* Alasdair Grant (ed.), UNSW Press, 2004, p.158.

- telecommunications-specific provisions for controlling anti-competitive conduct (Part XIB), with competition notices and a threshold test, based on 'effect or likely effect'.[12]

The access regime

2.18 The prohibitive entry barriers to facilities-based ownership, principally the high cost of roll-out, force many telecommunications players to rely upon incumbent operators for their initial access to network infrastructure. They are therefore constrained by the upstream conditions and products which are supplied to them by a carrier with whom they are often in direct competition. This environment is not favourable to the development of competitive wholesale and retail services (discussed later in this chapter).

2.19 Part XIC of the TPA was introduced in 1997 to deal with interconnection and access to certain telecommunications services. The term 'access' refers broadly to:

> the ability of carriers and service providers to pass and receive telecommunications traffic over each other's networks, in order to fulfil the imperative that all end-users of similar services be able to connect with one another, irrespective of the particular networks to which they are connected.[13]

2.20 The ACCC administers the telecommunications-specific access regime by 'declaring' key services to bring them under the scope of Part XIC. Once a service is declared, then all providers of that service are subject to 'standard access obligations' (SAOs).[14] SAOs require access providers to supply the access seekers with the necessary interconnection facilities and a level of technical and operational service quality equivalent to that which it would supply itself.

2.21 While declaration initiates SAOs, the regulatory framework emphasises the importance of commercial negotiations in determining the terms and conditions of service supply. The terms and conditions of supply of a declared service can be determined by:

- commercial negotiations, without any involvement from the ACCC
- commercial negotiations, involving procedural directions issued by the ACCC

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12 Productivity Commission, *Telecommunications Competition Regulation, Inquiry Report No. 16*, September 2001, p.xx.

13 Alasdair Grant & David Howarth, The Access Regime, in *Australian Telecommunications Regulation (3ed.)* Alasdair Grant (ed.), UNSW Press, 2004, p.89.

14 Productivity Commission, *Telecommunications Competition Regulation, Inquiry Report No. 16*, September 2001, p. 219.

- negotiations attended or mediated by the ACCC following a request by both parties
- commercial negotiations, following a good faith direction issued by the ACCC following the creation of an access dispute or during the course of arbitration
- pursuant to an approval access undertaking lodged voluntarily with the ACCC by an access provider
- by arbitration.[15]

2.22 The ACCC has declared 16 services under Division 2 of Part XIC of the Trade Practices Act including:

- Digital Data Access Service
- Conditioned local loop service
- Integrated Service Digital Network Terminating Service
- Integrated Services Digital Network Originating Service
- Local Carriage Service
- Unconditioned local loop service
- Analogue Subscription Television Broadcast Carriage Service
- Line sharing service.[16]

2.23 In June 2000 the Treasurer, the Hon. Peter Costello MP, asked the Productivity Commission to review telecommunications competition regulation in order to examine the effectiveness of current arrangements and assess the policies that would be required as the environment changed.[17] The *Telecommunications Competition Regulation*s inquiry report, released in 2001, made 58 recommendations. The Government introduced a number of reforms to Parts XIB and XIC of the *Trade Practices Act* in response to a number of the report's findings, which were designed to simplify and make more efficient the ACCC's administration of the

15 Alasdair Grant & David Howarth, The Access Regime, in *Australian Telecommunications Regulation (3ed.)* Alasdair Grant (ed.), UNSW Press, 2004, p.95.

16 Australian Competition and Consumer Commission, Declared telecommunications services, accessed on 19 March 2004, URL: http://www.accc.gov.au/content/index.phtml/itemId/323824

17 Productivity Commission, *Telecommunications Competition Regulation, Inquiry Report No. 16*, September 2001, p.xxi.

telecommunications-specific market conduct and access regimes and to facilitate increased competition and investment in the telecommunications industry. These proposed changes were implemented early in 2003 following the passage of the *Telecommunications Competition Act 2002*.[18] The bill had been the subject of inquiry by the Senate's Environment, Communications, Information Technology and the Arts Legislation Committee, which presented its findings on 22 November 2002. The bill was subsequently the subject of amendment by the Senate, which amendments were accepted by the House of Representatives.

Anti-competitive conduct and record-keeping rules

2.24 Part XIB of the TPA, titled *The Telecommunications Industry: Anti-competitive conduct and record-keeping rules,* was developed as a deterrent to anti-competitive conduct and applies specifically to telecommunications markets. Section 151AK of Part XIB states that a carrier or carriage service provider must not engage in anti-competitive conduct. A carrier is deemed to have engaged in anti-competitive conduct if it:

- has a substantial degree of power in a telecommunications market; and;
- either:
    - takes advantage of that power with the effect, or likely effect, of substantially lessening competition in that or any other telecommunications market;
    - takes advantage of the power, and engages in other conduct on one or more occasions, with the combined effect, or likely combined effect, of substantially lessening competition in that or any other telecommunications market; or
    - engages in conduct in contravention of sections 45, 45B, 46, 47, or 48 of the TPA where that conduct relates to a telecommunications market. [19]

2.25 When the ACCC receives evidence of anti-competitive behaviour it initiates an investigation. Once it has deemed that anti-competitive conduct has occurred, or is occurring, it may issue a competition notice in regard to that conduct.

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18 Alasdair Grant & Derek Wilding, in *Australian Telecommunications Regulation (3ed.)* Alasdair Grant (ed.), UNSW Press, 2004, p.xi.

19 Productivity Commission, *Telecommunications Competition Regulation, Inquiry Report No. 16*, September 2001, p.158.

2.26 There are two types of competition notices, Part A and Part B. Part A notices are issued by the ACCC when it has reason to believe that:

- a carrier or carriage service provider has engaged, or is engaged, in an instance of anti-competitive conduct (under section 151AKA(1))
- a carrier or carriage service provider has engaged, or is engaged, in at least one instance of anti-competitive conduct of a kind described in the notice (under section 151AKA (2))

2.27 Part A competition notices are designed to fulfil a 'gatekeeper' role by acting as a obligatory precondition for the bringing of a private action under Part XIB. They are flexible instruments, which at the ACCC's discretion can be revoked or modified in minor ways, without the need for a new investigation. Competition notices issued under section 151AKA (2) do not require the ACCC to specify a particular instance of anti-competitive conduct and this flexibility allows it to investigate where precise evidence has not yet come to light.[20]

2.28 In contrast, under section 151AL, a Part B notice must set out particulars of the alleged contravention:

> A Part B competition notice could therefore be used to consolidate the results of an ACCC investigation into a single document for use by litigants alleging loss or damage resulting from the anti-competitive conduct.
>
> Section 151AN provided that a Part B competition notice is prima facie evidence of the matters set out in that notice….The avowed purpose of the Part B competition notice is to facilitate parties taking private legal action to enforce the competition rule or to recover loss or damage arising from anti-competitive conduct.[21]

2.29 While each is a separate notice, in practice a Part B notice is unlikely to be issued unless the alleged anti-competitive conduct has been the subject of a Part A notice.[22]

Tariff-filing directions and record-keeping rules

2.30 Under Part XIB of the TPA the ACCC has been given information gathering powers in order to address issues of information asymmetry. These information gathering powers are:

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20 David Stewart, Anti-competitive Conduct, in *Australian Telecommunications Regulation (3ed.)* Alasdair Grant (ed.), UNSW Press, 2004, p.173.

21 ibid, p.174.

22 Productivity Commission, *Telecommunications Competition Regulation, Inquiry Report No. 16*, September 2001, p.159.

- Tariff filing directions, which require a carrier or carriage service provider with a substantial degree of market power to file certain tariff (price list) information with the ACCC. Additional tariff filing arrangements are imposed on Telstra.

- Record keeping rules that currently require selected carriers (namely, Telstra, Optus and Vodafone) to report quarterly to the ACCC. Record keeping information is used to scrutinise anti-competitive cross-subsidisation by vertically and horizontally integrated companies.

2.31 Under additional measures of the *Telecommunications Competition Act 2002* and in conjunction with the ACCC telecommunication Regulatory Accounting Framework (RAF), Telstra is required to provide accounting separation of its wholesale and retail operations. The objective of accounting separation is to better inform both the regulator and the market of Telstra's costs and revenues (on a current cost basis) and its comparative treatment of its retail business and its wholesale customers.[23]

2.32 Telstra is required to provide reports on a six-monthly and yearly basis to the ACCC. The reports are to contain:

- regulatory accounting records for core services based on *current costs* as well as an historical cost basis;

- an *imputation analysis* comparing Telstra's retail prices with the costs (to competitors) of Telstra's core wholesale services; and

- key performance indicators on *non-price terms and conditions* that compare Telstra's service performance between its retail and wholesale customers.[24]

2.33 In June 2003 the Minister for Communications, Information Technology and the Arts directed the ACCC to implement an enhanced form of accounting separation of Telstra's wholesale and retail accounts. The ministerial direction, issued under Division 6 of Part XIB of the Trade Practices Act, introduced:

- current cost accounting (CCA), as well as the historical costs used in the RAF;

- key performance indicators on non-price terms and conditions that compare service performance between retail and wholesale supplied services; and

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23 Grahame O'Leary, *Enhancing Competition in Telecommunications: Accounting Separation of Telstra's Operations*, Research Note No. 39, Parliamentary Library, March 2004.

24 Ibid.

- imputation analysis (imputation testing) of core telecommunications services supplied to access seekers.[25]

2.34 In December 2003, the ACCC released its initial report relating to accounting separation of Telstra. The report found that on a current cost basis, the aggregate value of assets for the core access services are substantially higher than the historical asset valuations. In proportionate terms, this is particularly apparent for the unconditioned local loop and local carriage services.

2.35 The imputation report is designed to reveal whether there is a sufficient margin between Telstra's retail prices and the prices it charges access seekers to use its network (plus related costs) to enable them to compete in retail telecommunications markets. The results, both on a historical and current cost basis, indicate that Telstra passed the imputation tests for domestic and international long-distance calls and fixed-to-mobile calls, but failed for local call services (line rental and local calls combined). Telstra also passed the test over the bundle for both residential and business customers.

2.36 The third of the reports dealt with key performance indicators (KPIs) for non-price terms and conditions. The KPIs on non-price terms and conditions measured the difference between the percentage of Telstra Wholesale's business and residential customers and Telstra Retail's business and residential customers which met the performance standards (defined in terms of the Customer Service Guarantee measures). This report found that while there was some variance that required further investigation, there was no evidence to suggest that there is any systematic discrimination against Telstra Wholesale's customers.

2.37 In April 2004 the second round of public reports (for the December quarter 2003) for imputation and non-price terms and conditions (NPTCs) in relation to the accounting separation was released by the ACCC. The report concluded similar findings in regard to all areas reported in the December document. In regard to the imputation test, however, it noted that:

> Across these particular indicators, Telstra's second report indicates, consistent with the previous quarter, that there does not appear to be any systematic discrimination against Telstra Wholesale's customers. However it may not be expected to do so given that it is highly aggregated. It does not provide a means of identifying or addressing individual cases of

25 Australian Competition and Consumer Commission, accessed on 8 April 2004, URL: http://www.accc.gov.au/content/index.phtml/itemId/333799

> discrimination. The ACCC will continue to respond to complaints of discrimination on their merits.[26]

2.38 On 30 June 2004 the ACCC issued two reports in relation to the accounting separation of Telstra. The reports covered Telstra's performance in the March quarter 2004. The imputation analysis report which compared Telstra's retail prices with the prices of two core telecommunications access services found that Telstra passed the imputation tests for domestic and international long-distance calls and fixed-to-mobile calls, and failed for local call services (line rental and local calls combined). The ACCC noted that failing the imputation tests in the report was not definitive of competition concerns, and that the fail for local call services may not be of concern due to the common bundling of local call services with other telephony services.

2.39 The second report gave key performance indicators on non-price terms and conditions that compared Telstra's service performance between Telstra's retail and wholesale supplied basic access services. The ACCC found little difference between the results in these reports and those of previous quarters. Additionally, the information provided by Telstra did not reveal any major concerns with how Telstra makes available specific services to access seekers to enable them to compete in retail markets.[27]

2.40 While the reports are intended to provide greater transparency of Telstra's operations to ensure that Telstra does not unfairly discriminate between access seekers using its network services and its own retail operations, a number of weaknesses within the system have been raised with the Committee. These will be discussed in Chapter 3.

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26 Australian Competition and Consumer Commission, Imputation and non-price terms and conditions reports relating to accounting separation of Telstra, December 2003. Accessed on 8 April 2004, URL: http://www.accc.gov.au/content/item.phtml?itemId=494956&nodeId =file40723 82015639&fn=Imputation%20and%20non-price%20terms%20and%20conditions %20reports%20April%202004.pdf

27 Australian Competition and Consumer Commission, Imputation and non-price terms and conditions reports relating to accounting separation of Telstra for the March quarter 2004. Accessed on 30 June 2004, URL: :http://www.accc.gov.au/content/item.phtml?itemId= 520195&nodeId=file40e 204d648578&fn=Imputation%20and%20non-price%20terms% 20and %20conditions% 20report%20for%20March%2004%20quarter%20(June%202004).pdf

Chapter 3

Broadband uptake, impediments and competition

Introduction

3.1 This chapter examines the current level of competition in broadband services. Specifically it looks at impediments to both broadband uptake and competition. As the Australian Telecommunications Users Group (ATUG) told the Committee in overview:

> The Australian market is not effectively competitive due to lack of robust infrastructure competition, and ineffective access to the infrastructure that does exist.[1]

Uptake of broadband technology

3.2 The Australian Competition and Consumer Commission's Snapshot of Broadband Deployment, as at 31 December 2003, found that total broadband take-up was 698,700 and that:

> Broadband take-up has increased by 335 200, or 92.2 per cent, from the December 2002 figure of 363 500.

3.3 However, the rate of broadband growth slowed over the last three quarters of 2003:

> In Q4 2003, the growth rate was 14.4 per cent, compared to 18.2 per cent in Q3 2003 and 22 per cent in Q2 2003.
>
> During this period, the quarterly growth rate decreased across each type of broadband technology.

3.4 The 14.4 per cent growth rate for the December 2003 quarter represents the lowest quarterly increase recorded in the period covered by the survey.

3.5 Within this context, 'other DSL' services continued to achieve the highest growth rate, increasing by 31.4 per cent in the December quarter.[2]

3.6 Of the report findings, ACCC Commissioner Mr Ed Willett said:

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1 Australian Telecommunications Users Group Limited (ATUG), *Submission 33,* p.2.

2 Australian Competition and Consumer Commission*, Snapshot of Broadband Deployment as at December 2003*, URL: http://www.accc.gov.au/content/item.phtml?itemId =512240&nodeId= file40bff0c3b3c39&fn=Broadband%20report%20December%202003.pdf

> The 14.4 per cent growth rate for the December 2003 quarter represents the lowest quarterly increase recorded in the period covered by the survey.
>
> However it should also be noted that these growth figures pre-date the changes in pricing structures for broadband services that began in February 2004…. The impact of these changes will not become evident until take-up figures become available for the March 2004 and June 2004 quarters.[3]

3.7 Mr Bill Scales from Telstra told the Committee that the company has set ambitious targets for broadband uptake:

> We aim to have one million broadband customers by the end of 2005 and $1 billion in broadband revenue by the end of 2006. I am pleased to say that we are on track to reach both of these quite aggressive targets.[4]

3.8 Telstra has argued that Australia's level of ADSL penetration, in year three of its rollout (2003) exceeds the level of uptake at the same period in France, Canada and the United States and that international comparisons suggest that Australia's broadband progress is consistent with or better than other countries in the early stage of technology adoption.[5]

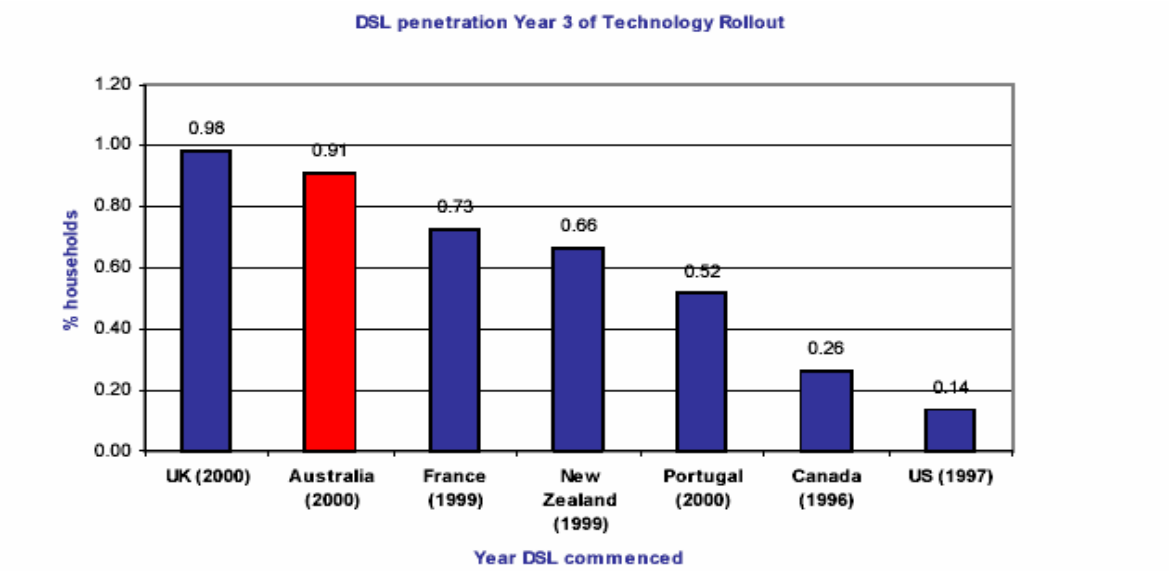

Figure 1: International comparisons of year three penetration rates[6]

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3 Australian Competition and Consumer Commission, media release, 4 June 2004, URL: http://www.accc.gov.au/content/index.phtml/itemId/512244/fromItemId/459302

4 Mr Bill Scales, Telstra, *Committee Hansard*, Canberra, 12 November, 2003, p.63.

5 Telstra, *Submission 21*, p. 3.

6 ibid, p. 16.

3.9 Telstra's submission cited the Network Economics Consulting Group (NECG) study, which investigated the impact of regulatory and other economic factors on broadband take-up internationally, in support of its contention that there was no evidence to confirm that its ownership of an HFC network was leading to reduced broadband penetration:

> NECG examined the full OECD broadband penetration database to see if there was any correlation between broadband penetration and participation by the incumbent telecommunications carrier in either the largest cable network operator, or any cable network operator. The analysis allows NECG to conclude that:
>
> > *...cross-ownership of the largest cable and copper networks by the incumbent carrier ... does not have a statistically significant adverse impact on broadband penetration.*
>
> In addition, although the dummy variables for the ownership influence of incumbent carriers could not be considered statistically significant:
>
> > *[t]he direction of influence implies that divestiture or removal of the influence of the incumbent telecommunications carrier would lead to* ***lower****, not higher, penetration*.[7]

3.10 NECG found that broadband penetration could be explained by the age of the technology, real GDP per capita, and the penetration of subscription television:

> Australian broadband penetration rates are not significantly lower than the average of the countries in the OECD data base, when due account is taken of basic economic factors explaining penetration rates …[O]ne cannot conclude, based on a simple economic model and formal statistical criteria, that the Australian penetration rate is significantly lowed than [the OECD] average.[8]

3.11 However, the ACCC has raised concerns over the statistical model developed in the report and the subsequent conclusions.[9] It submitted that:

> In particular, the Commission has identified a number of factors that may limit the explanatory power of the statistical model developed within this report, including that:
>
> - as specified, it does not take account of 'price', 'quality', 'competition' or 'computer use/penetration' as factors explaining broadband penetration across countries;

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7 Telstra*,, Submission 21*, p.29.

8 ibid, p.16.

9 Australian Competition and Consumer Commission, *Submission 52*, p. 4.

- it relied on some questionable assumptions regarding how the 'age of technology' variable is introduced into the analysis; and
- preliminary statistical testing suggests that it violates some of the fundamental assumptions of regression modelling.[10]

3.12 The ACCC engaged Associate Professor Ian Gordon of the Statistical Consulting Centre at the University of Melbourne to undertake an independent review on the NECG model and the conclusions drawn from that model. Associate Professor Gordon found:

> There are significant problems with the model, even if the variables considered are assumed to be the only ones relevant…. I think that the intrinsic complexity of the situation makes a regression approach of limited value, for the goals of identifying whether countries are significantly behind other countries, and assessing whether cross-ownership affects broadband penetration. The other differences between countries with and without cross-ownership make a causal inference very difficult, based on observational data, and in my opinion such an inference cannot be drawn on the available data.[11]

3.13 Overwhelmingly, the Committee heard that broadband take up rates in Australia were low and were falling in comparison to many international markets:

> It is encouraging that the growth rate over the last quarter remained steady rather than continuing to decline. This is still of concern, however, as Australia is lagging behind many other developed nations in terms of broadband take-up…Broadband markets in Australia will need to develop much more quickly if Australia is to retain, let alone improve, its comparative international position.[12]

3.14 In September 2003, the OECD ranked Australia 21st in broadband uptake per head of population.[13] Vertel argued that when contrasted with broadband penetration rates of other countries, Australia fairs badly with only 5% of homes connected to broadband:

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10 Australian Competition and Consumer Commission, *Submission 52*, p 4.

11 Australian Competition and Consumer Commission, *Submission 52a*, *Review of NECG report on broadband penetration in Australia*, Associate Professor Ian Gordon.

12 Optus, *Submission 36*, p.1.

13 Australian Industry Group, *Submission 34*, p. 6.

Hong Kong	52%
Singapore	25%
USA	19%
France	13%
Australia	5%

Figure 2: Percentage of homes connected with broadband internet. [14]

3.15 Mr Paul Budde told the Committee that:

> Australia is already well behind comparable trading partners in broadbanding. In 2003 it features at the bottom end of the OECD rankings. A continuation of relatively slow growth will see the country lagging further behind in years to come.[15]

3.16 It has been suggested that broadband uptake is driven by a variety of factors including the ability of services to meet customer service demands. The Committee heard that in order to drive broadband take up, products and services need to be offered in a way that meets demand. Optus contended that to date the demand for broadband has been driven by the following factors:

> (a) convenience - customers wanting an always on connection and to be able to use the telephone and access the Internet at the same time;
>
> (b) value – the cost of the broadband service relative to the cost of dial-up (including accessing the Internet using a second dial-up line);
>
> (c) price certainty – being able to access broadband services using flat rate plans with no excess usage charges (so users do not face unexpected prices for exceeding usage limits);
>
> (d) performance – speed; and
>
> (e) content – the availability of video streamlining, downloading music and other multimedia content.[16]

Impediments to broadband uptake

3.17 Undoubtedly, the reasons for Australia's slow broadband growth and uptake in comparison to many other countries are complex. Evidence to the inquiry suggested that the key impediments to broadband uptake include availability of

14 Vertel, *Submission 37*, p.3.

15 Mr Budde, *Submission 6*, p.1.

16 Optus, *Submission 36*, p.12.

infrastructure, technical limitations, price and knowledge and perceptions about the value of upgrading to broadband technology.[17]

Network capability

3.18 The vast majority of the Customer Access Network (CAN), laid over decades, was designed to only deliver voice telephony. Twisted pair copper has been used since the 1880s as submarine cables and domestically from the 1930s and 1940s. After this period insulated copper pairs were used in the standard access network and almost all residential homes connect with it. Much of this cable has now been in the ground for 40 years and as the copper has aged it has crystallised and become brittle.[18] The ageing network, coupled with the fact that the CAN was not engineered for the provision of data services is an impediment to the growth of broadband uptake. As Telstra explained:

> The bulk of Australia's existing copper telephone network (and the networks in all other countries) was developed prior to the invention of the Internet, and was never designed to carry ADSL.[19]

3.19 A number of submissions similarly made the point that broadband services are not widely available because of the limited capacity of the existing infrastructure:

> It should be profoundly obvious to all but the most inept, that the common technologies used for providing access for telephony are not suitable for Broadband distribution…. An entirely different customer access network infrastructure is an imperative that must be implemented as a priority, and this is the first and biggest impediment to be overcome: with or without competition.[20]

3.20 Mr Charles Reed from Personal Broadband Australia Pty Ltd told the Committee:

> The first point I would like to bring up is that our position and our opinion is that the low uptake of broadband is largely a supply issue, rather than a demand or pricing issue. Some of the supply reasons are quite evident…. They include issues around the existing copper network and the fact that it was not really designed for a high bandwidth data type service, with the limitations you heard about earlier on RIM block type areas leading to—to plagiarise your words, if I may—pair gain victims. There are issues with DSL of distance from the exchange, and there are difficulties and

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17 The Institution of Engineers Australia, *Submission 25*, p.6.

18 Mr Malcolm Moore*, Submission 19*.

19 Telstra*, Submission 21*, p.8.

20 Mr Malcolm Moore, *Submission 19*, p.16.

> complexities around things like multi-dwelling units in high-rise buildings. There is also the age of the actual copper. As the copper deteriorates, putting high bandwidth through it becomes harder…. Our position is that it is a supply issue, rather than a demand issue.[21]

3.21 Similarly, the Committee heard a significant amount of evidence on the technical constraints which restrict broadband access:

> The supply side is the dominant impediment to the uptake of broadband technology. Whilst Telstra is an easy target in this debate, the existing copper network was only designed to carry voice and simply is not designed for the supply of broadband. The following problems with their network are well documented:
>
> - Rim blocked areas;
> - Pair gain impediments;
> - Distance from the exchange (3.4 km or less);
> - Not available to multi-dwelling apartments; and
> - Age of the copper network affecting its quality.
>
> As a result, broadband has a poor image in terms of both availability and service quality and we believe this is a contributing factor to broadband's low adoption rate. [22]

3.22 Asymmetrical Digital Subscriber Line (ADSL) technology was developed in order to allow delivery of broadband technology over the copper twisted network. However, submitters advised the Committee that ADSL and other broadband services are simply not available to many regional institutions[23] and large numbers of individuals.[24]

3.23 Telstra contends that there are three main reasons why some customers may not be able to access broadband via ADSL. These are:

- the serving Telstra exchange may not be ASDL-enabled;
- the customer's premises may be beyond the technical limits for ADSL transmission;

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21 Mr Charles Reed, Personal Broadband Australia Pty Ltd, *Committee Hansard*, Sydney, 13 November, 2004, p.88.

22 Personal Broadband Australia Pty Ltd, *Submission 11*, p.4.

23 Townsville Catholic Education Office, *Submission 16*, p.1.

24 Mr Graham Leake, *Submission 2*, p.1.

- the telephone service may not be provided via a straight copper line but via some kind of electronic access line technology, commonly referred to as a pair gain system (PGS).[25]

3.24 A number of submissions were received from private citizens unable to access broadband technologies due to either lack of infrastructure or unsuitable infrastructure.[26] Mr Kaon Li told the Committee that:

> My current place of abode cannot get ADSL or cable…. When I apply for ADSL, I have received a notification that the exchange I'm on is a secondary exchange, and there is no plan to upgrade the exchange to support ADSL anytime soon according to Telstra. I believe there are a lot more people like myself in Australia who cannot get access to either ADSL or cable, and the greatest impediments to uptake of broadband technology may be that for many it simply isn't available.[27]

3.25 Similarly, Mr Graham Leake told the Committee that:

> There are a large number of people unable to connect to a physical (non-satellite) broadband connection in any older or outer suburbs of capital cities, including myself. Most CBDs are wired up with new cable or radio-WAN; country areas are being focussed on through issues with selling Telstra, but those of us in the middle are falling through the cracks.
>
> I have tried for 3 years to get connected to ADSL or any other 512kbit or faster interface, and I am only 9km from the Perth GPO. We are the group of people "more than 3km from an exchange", usually on older exchanges.
>
> I have spoken to many people over the last few years who are all in the same position - can't get ADSL, can't get cable, and radio WANs have not yet been set up to cover residential areas. I also notice a lot of similar complaints on the Whirlpool broadband internet forum.
>
> In conclusion, the above problem of the outer and older suburbs is impeding the take-up of broadband services.[28]

3.26 The inadequacy of telecommunications infrastructure also affects populations living in newer suburbs, such as in Gungahlin in the ACT. TransACT told the Committee that:

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25 Telstra, *Submission 21*, p. 8.

26 Mr Michael Orford, *Submission 1*, p.1.

27 Mr Kaon Li, *Submission 17*, p.1.

28 Mr Graham Leake, *Submission 2*, p.1.

> Gungahlin is one of the fastest growing areas not only of Canberra, but also across Australia. There were almost 20,000 persons living in Gungahlin in the year 2000 with projected estimate of 37,000 persons by 2010. This represents an annual population growth of 8.8%. Gungahlin is currently not well served by Broadband technology because of the inadequate Telecommunications infrastructure. All electricity cabling is underground. The costs of connecting services to underground cabling is high and as a result, TransACT has had to rate Gungahlin as a later priority for providing its Broadband Services. In the past, Telstra's ADSL service have been unavailable in Gungahlin resulting in significant negative impacts on residents, families and local business.[29]

3.27 As discussed in Chapter 1 of this report and throughout this Committee's earlier report on the Australian telecommunications network, broadband services can be delivered by a range of technologies. The Committee notes that, in every circumstance where broadband cannot be obtained via DSL technology, it is available through satellite. However, this technology is troubled by issues of latency or propagation delay (for a more detailed discussion see the Committee's report into the Australian telecommunications network inquiry) and, as discussed below, is not an affordable method of broadband delivery for many customers.

Cost

3.28 Pricing is an important and frequently underestimated impediment to the uptake of broadband technology. The cost of broadband access in Australia is a significant factor in the low rate of broadband uptake, as is the relative low cost of dial-up 'narrowband' connections.[30] Mr James Nichols told the Committee:

> I am considering getting broadband, on either cable or ADSL, but believe it is about $80 per month which is too much for my budget. Considering I am single and in the top income bracket, I find it hard to see how the average consumer can afford broadband services.[31]

3.29 The cost of residential ADSL in Australia is high in comparison to a number of other countries, with Australia having the third highest one-off installation cost.[32]

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29 TransACT, ACT Government, *Submission 14*, p.3.

30 The Institution of Engineers Australia, *Submission 25*, p.7.

31 Mr James Nichols, *Submission 3*, p.1.

32 Townsville City Council, *Submission 15*, p.23

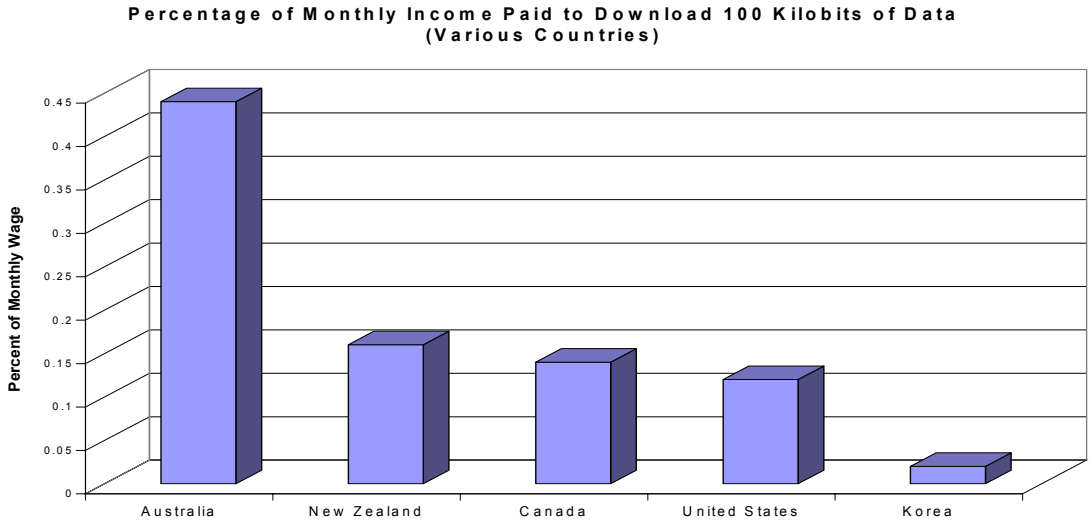

Figure 3: International comparison of broadband costs as a percentage of monthly wage.[33]

3.30 A number of local governments emphasise cost as a major impediment to uptake of broadband in their regions. Blacktown City Council told the Committee that:

> However, broadband from phone and cable companies can cost over $60 a month. Many Web users will remain with dial-up due to cost. In Blacktown, most households earn less than $50,000 a year, so many consumers simply can't afford broadband.[34]

3.31 While the Townsville City Council argued that:

> Pricing of broadband services remains unacceptably high and unattractive to many Townsville consumers. At present, the entry price level for domestic broadband services is around $60 per month plus installation costs. For many residents and businesses, this price is simply prohibitive or at the very least unjustifiable.[35]

3.32 The Australian Industry Group argued that cost prevented 29% of all firms not using advanced telecommunications from broadband uptake.[36] However, a

33 The Institution of Engineers Australia, *Submission 25*, p.7.

34 Blacktown City Council, *Submission 13*, p.5.

35 Townsville City Council, *Submission 15*, p.23.

36 Australian Industry Group, *Submission 34*, p.5.

number of submissions went further to claim that a pricing structure which includes limits on the volume of downloads per month was an impediment to broadband uptake and expansion.[37]

> Most broadband service agreements restrict the amount of data that can be downloaded in any month…. This severely restricts the way in which the service can be used…. In business terms, it equates to one reasonable sized database or one relatively small software application. The capabilities of broadband services currently on offer are more commercially aligned to premium narrowband services than to a true broadband service offering connection speeds measured in multiples of megabits with no download limits. This is because the current pricing arrangement effectively restricts the use of a broadband service so that while it may be fast and always connected, it is used sparingly due to the cost of exceeding the download limit.[38]

3.33 The extensive use of download caps and 'throttles' by ISPs also deters broadband usage and modifiers the end user's behaviour so that broadband services are used as a high-speed data service rather than as a true broadband.[39] Submitters were critical of this practice:

> Price elasticity is further impacted in the Australian context by the prevalence of broadband caps. Australia is one of the few countries that has caps, which act as a strong deterrent to the use of broadband applications by end-users. It is ironic that telecommunications is one of the few industries in Australia that actively promotes a limitation of use! … The price penalties for exceeding caps are also significant. Some ISP's 'throttle' services as users reach their caps; others allow users to continue using and charge very high surcharge penalties. Both of these responses have the effect of deterring usage of the broadband service, thereby reducing the public benefits of broadband service provision.[40]

3.34 For regional and remote populations which rely on satellite services, cost of infrastructure installation is a significant inhibiting factor.[41] The Committee was told that installation fees for satellite services are in excess of $1000 for a single user in Alice Springs[42] and significantly more in less populated regional towns. The Cabonne Council located in Molong, central NSW noted that two-way

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37 Mr Duncan Raymont, *Submission 18*, p.7.

38 The Institute of Engineers Australia, *Submission 25*, p.8.

39 Mr Duncan Raymont, *Submission 18*, p. 7.

40 Townsville City Council, *Submission 15*, pp.26-27.

41 Gulf Savannah Development, *Submission 10*, p.1.

42 Alice Springs Film and Television Australia*, Submission 6*, p.1.

satellite costs approximately $4000 to install and $80 per month to access.[43] The Communications Expert Group told the Committee that:

> Satellite Broadband is too expensive and is likely to remain beyond the reach of many businesses and individuals in remote areas.[44]

3.35 Conversely, Telstra told the Committee that the extent to which the price of broadband influences the rate of broadband penetration is an open question. They cite the Western Australian Technology and Industry Advisory Council which found that:

> There appears to be little correlation between affordability and take-up. For example, South Korea performs poorly in terms of affordability of both cable and ADSL services. This is despite the fact that they have the highest take-up of broadband services in the world. Similarly, France has a broadband take-up rate fractionally higher than Australia despite the fact that both ADSL and cable services are significantly more affordable in Australia (measured as a percentage of per capita GDP) than in France. Again this suggests that the impediment to broadband take-up is not ability to pay but willingness to pay.[45]

3.36 However, in the United Kingdom rapid broadband uptake was achieved after regulatory intervention saw prices dropped significantly.[46] Similarly, Telstra itself saw a considerable influx of new broadband customers after it lowered its broadband price to $29.95 per month in February 2004. In a media release dated 5 March 2004, Telstra claimed that its lower retail prices were having a significant impact on uptake of broadband services:

> Consumers are voting with their feet and taking-up broadband in record numbers, following recent price reductions across the entire market.
>
> The strong consumer response means the broadband market is expanding rapidly, with more than 10 per cent of Australian homes already connected,….
>
> By offering broadband at prices equal to those prevailing elsewhere in the market, Telstra is helping expand the market and increase the nation's rate of broadband take-up….
>
> Since Telstra announced discounted broadband prices in the middle of February, broadband applications have more than doubled, and the rate of

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43 Cabonne Council, *Submission 27*, p.1.

44 Communications Expert Group, *Submission 30*, p.5.

45 Telstra, *Submission 21,* p.20.

46 Small Enterprise Telecommunications Centre Limited, *Submission 29*, p.4.

> greatest growth was being experienced amongst wholesale ISP customers of Telstra.[47]

3.37 In June 2004, Telstra issued a further media release detailing the large growth in customer numbers as a result of its February 2004 price reduction. Mr Bruce Akhurst, Group Managing Director, Telstra Wholesale, Broadband and Media said:

> Telstra has signed its 750,000th broadband customer this week, following a 46 per cent surge in demand in just five months…. Telstra will beat its target of one million broadband customers by the end of next year. We are now on track to achieve that six months early, by the end of June 2005.
>
> By dropping broadband prices, Telstra set off an avalanche of customer demand. We have been setting and then breaking records ever since.[48]

3.38 The Committee concludes that cost is a factor in the uptake of broadband services. As Mr Steve Ireland told the Committee:

> [The] key impediment to the broad uptake of broadband [is] price. I pay $94.95 per month. It's too much and the price needs to be $50.00. End of story! This issue by far outweighs the rest of the issues.[49]

Customer knowledge

3.39 Many submitters point to a lack of customer understanding as an impediment to broadband uptake. This issue is compounded by the fact that available services and contract and terms of service are complex and confusing.[50] cBallarat argued that a lack of a general knowledge-base, service confusion and complexity, including lack of understanding of what broadband means and complex multi-tiered service contracts all impede broadband uptake.[51]

3.40 Additionally, Neighborhood Cable argued that the general population has no clear understanding of what broadband over fibre is or of the level of service that

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47 Telstra, Media Releases 05 March 2004, *New broadband prices prompt market expansion*. URL http://www.telstra.com.au/communications/media/mediareleasearticle.cfm?ObjectID=31205

48 Telstra, Media Release 11 June 2004, *Cheaper prices send broadband numbers soaring*. URL: http://www.telstra.com.au/communications/media/release.cfm?ObjectID=31894

49 Mr Steve Ireland, *Submission 8,* p.1

50 Mr Stanley Tonkins, *Submission 9*, p.1.

51 cBallarat, *Submission 49*, p.1.

can be delivered over it. This may account to some degree why customers do not take up the superior technology.[52]

3.41 The need for a public education program was raised with the Committee as was the fact that Telstra uses market power to 'dumb down' consumers in order to sell inferior telecommunications products:

> There has been a lot of discussion this morning about defining broadband. I must admit I think that is a key function. There are a lot of statements in the marketplace at the moment and there is a lot of need for education. I believe that education falls upon Telstra. With its marketing dollars, the way it advertises and the way it spends, it should not dumb down the market…. That type of dumbing down of broadband is not doing anybody any real benefit.[53]

Impediments to broadband competition

3.42 The Committee recognises that competition in broadband services occurs in the CBD areas of Australia.[54] However, in regional and rural Australia, where it is more difficult to establish a business case for broadband infrastructure deployment, competition is limited. Mr Moore told the Committee that:

> Although Optical Fibre is connected to major businesses in the CBDs, virtually no optical fibre connects from the local exchanges to the homes and this will be the next big move.[55]

3.43 Telstra submitted that there is strong competition in all broadband market sectors, evident by the 200 ISPs competing for the provision of one or more types of broadband services in Australia. It added that effective competition has delivered broadband services over ADSL and HFC cable at prices that are more affordable than in many other countries.[56]

3.44 However, it is widely argued that Telstra's monopoly position limits effective competition in the broadband market. At a speech in November 2003 to the Australian Financial Review Telecom Summit, ACCC Chairman, Mr Graeme Samuel, claimed that:

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52 Neighborhood Cable, *Submission 47*, p.7.

53 Mr Fred Grossman, Neighborhood Cable, *Committee Hansard*, Ballarat, 5 February 2004, p.25.

54 Small Enterprise Telecommunications Centre, *Committee Hansard*, Ballarat, 5 February 2004, p.21.

55 Mr Malcolm Moore, *Submission 19*, p. 25.

56 Telstra, *Submission 21*, p.27.

> The existence of such extensive market power in a vertically integrated firm is a major risk to competitive outcomes. Telstra has both the ability and, importantly, the incentive to frustrate entry into complementary and substitute markets by other companies.[57]

Broadband market

3.45 Telstra has 68% of the broadband market on its several fibre and copper networks and is strong in both metropolitan and regional markets. Optus has about 22%, predominantly in metropolitan markets, and the other competitive providers share the remaining 10%.[58] Bits on Light submitted the following comprehensive summary:

Both metropolitan and regional coverage

- Telstra HFC network - coverage is passing 2.5M homes - 40,000km of cable covering Melbourne, Sydney, Brisbane, Gold Coast, Adelaide & Perth. This required an investment of $4B. There is currently no retail competition on this network.

- Telstra Fibre network – Telstra has deployed over 140,000 km of fibre in Australia. Significantly in the metropolitan, suburban, and regional network the breadth and depth of Telstra fibre coverage is without parallel.

Predominantly metropolitan coverage

- Optus HFC network - coverage available to 1.4M homes – 21,000km of cable covering Melbourne, Sydney, and Brisbane. Notably it is widely believed there is an 80% overlap with the Telstra HFC. This required an investment of $3B. The total number of Broadband customers on the Optus HFC network is 110K and other Optus broadband networks is at most 9.5K. There is currently no retail competition on this network.

- Optus Fibre, LMDS and DSL network - Optus has deployed over 8,700 km of fibre (1/16th of that of Telstra), including inter-capital and CBD fibre rings in the capital cities. In addition over 100 exchanges have coverage with DSL. There is some retail competition on these networks.

- Other Competitive DSL providers include Request Broadband, NEC/Nextep, Primus, AAPT and Powertel. These have all focused on the business market & therefore collectively only currently have coverage in <110 largely overlapping exchanges. The non-Telstra DSL networks rely

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57 Australian Competition and Consumer Commission, Commissioner Graeme Samuel, *A competitive telecommunications industry: Issues in competition and consumer law,* Speech to the Australian Financial Review Telecom Summit, 27 November 2003, Sydney, p.7.

58 Bits on Light Pty Ltd*, Submission 23*.

heavily on the declared services of Facilities Access to exchange building, ULL and spectrum sharing. In addition they rely on transmission services (bandwidth), which is not declared, to the exchange buildings. There is significant retail competition on and between these DSL networks, however the retail "floor" price for these business services is currently close to $100, due to the high input costs of the declared services. The estimated number of Broadband customers on these DSL provider networks is < 20K.

- Uecomm Fibre network - Uecomm has fibre to over 650 buildings primarily in the CBD areas Brisbane, Sydney, Melbourne and the Gold Coast, with some metropolitan coverage. There is some retail competition on this network.

- Powertel Fibre network - Powertel has fibre to over 400 buildings primarily in the CBD areas Brisbane, Sydney, Melbourne and the Gold Coast, with some metropolitan coverage. There is some retail competition on this network.

- Other CBD Fibre networks include AAPT, Primus and MCI/Worldcom. These networks are often limited to the CBDs of the capital cities. There is some retail competition on these networks. The estimated number of Broadband customers on these fibre networks is < 5K.

Predominantly regional coverage

- TransACT Fibre/VDSL network (Canberra ACT). Coverage goal of 100K homes in the ACT, with currently around 60K homes and 5K businesses covered with an investment of approx. $300M. TransACT has at least 20K customers on their network (incl. Pay TV, telephony & Broadband). There is retail competition on this network. The estimated number of Broadband customers on TransACT is 4.2K .

- Neighborhood Cable HFC network (Geelong, Ballarat, Mildura in Victoria). By the end of 2003, the coverage will extend to 90K homes with an investment of approx. $60M. Neighborhood Cable has 5.4K customers on their network (incl. Pay TV, telephony & Broadband).The estimated number of Broadband customers on Neighborhood Cable is 1.1K.[59]

3.46 The Committee consistently heard that Telstra's control over considerable sections of the telecommunications sector and its near monopoly control of the infrastructure in regional and rural Australia was a significant impediment to competition in broadband.[60] Key barriers include: the lack of facilities or

59 Bits on Light Pty Ltd, *Submission 23*, pp.3-4.

60 Neighborhood Cable, *Submission 49*, p.3.

infrastructure based competition, especially in outer suburban and rural and regional areas; Telstra's slow investment in alternative infrastructure technology; the power of the 1st tier carriers to peer; and the interconnection of both Telstra's wholesale and retail markets with Telstra's ability to bundle services and wall customers.

Investment in infrastructure and technology

3.47 The high cost to build infrastructure and Australia's small geographically dispersed population significantly restricts infrastructure-based competition in the telecommunications sector. The current level of infrastructure based broadband competition in Australia is minimal outside of CBDs. The Committee heard from Mr Fred Grossman from Neighborhood Cable who argued that:

> Australia is a long way behind most developed countries. I think that is a fact that I do not need to talk about. One of the reasons for that is the lack of infrastructure based competition. One of the reasons the US has done well is the infrastructure based competition between telecommunications and cable TV networks.[61]

3.48 As noted in Chapter 1 the Committee heard that in late 2003 the ACCC allowed Telstra, under merger regulations, to purchase the IP1 fibre optic network which runs from Melbourne to Bunbury. The network was originally rolled out to provide direct competition to Telstra across Western Australia and that the recent acquisition of this network by Telstra is argued to have had a negative impact on broadband competition.

3.49 Of the decision to allow Telstra to purchase the IP1 network and the effect on wholesale prices of infrastructure competition, Mr Paul Budde said:

> The reality, unfortunately, is that Telstra was the only one to do it. My heart bled, because when IP1 was announced—not installed; announced—prices went down 40 per cent; that is, wholesale prices for Telstra. In your state of Queensland, Chair, in Central Queensland, with a whole new backbone, prices dropped by 25 per cent instantly. That is what IP1, Next-Gen and all these new backbones are doing. In Tasmania, where there is no competition, prices are 40 to 60 per cent higher than on the mainland…. from a state development point of view that it really is a sad story.[62]

3.50 Optus has HCF cable networks in certain parts of Sydney, Melbourne and Brisbane.[63] Nexium Telecommunications, Neighborhood Cable and TransACT have invested and rolled out limited cable infrastructure in Queensland, Victoria

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61 Neighborhood Cable, *Committee Hansard*, Ballarat, 5 February 2004, p.25.

62 Mr Paul Budde, *Committee Hansard*, Sydney, 13 November, 2003, p. 68.

63 Optus, *Submission 36*, p.7.

and the ACT respectively. However, infrastructure roll-out costs continue to limit the number of competitors in this sector of the telecommunications market:

> Neighborhood Cable as a publicly listed private company has invested private funds to build something for the community for the long term. Yesterday we launched a network in Geelong. There is $17 million in Geelong. What was the last investment in Geelong of $17 million? What was the last investment in Ballarat of $15 million or $16 million to put in infrastructure for the community?[64]

3.51 Additionally, the lengthy delays to recoup these costs prevent infrastructure investment:

> The problem was that after 1997 the industry … made some bad decisions. The industry went a bridge too far in terms of its build. It built more capacity in the broadband space than the market could take. Therefore, the capital markets now are not seeing a return on the assets that have been invested. They will not return any true value probably for five to 10 years. We are talking about the big broadband builds that were built that are not going to give any return.[65]

3.52 The Competitive Carriers Coalition told the Committee that:

> I would simply suggest that the people at this table represent investment in telecommunications infrastructure in this country in the order of about $4 billion…. I think Primus is proudly EBITDA positive. Nobody else at this table has seen any return on their investment.[66]

3.53 Similarly, Optus contended:

> Infrastructure investment is high cost and high risk. This is particularly the case in the residential and SME market. A bold move, such as that taken by Optus with its HFC network means large amounts can be spent and take a long time to earn a return. When faced with a strong and powerful incumbent, these risks are even higher.[67]

3.54 It has been argued that Telstra will not develop any new CAN infrastructure before the end of this decade.[68] And a number of submitters claimed that Telstra

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64 Mr Fred Grossman, Neighbourhood Cable, *Committee Hansard*, Ballarat, 5 February 2004, pp.28-29.

65 Mr John Stuckey, Comindico, *Committee Hansard*, Canberra, 12 November 2003, p.10.

66 Mr David Forman, Competitive Carriers Coalition, *Committee Hansard*, Canberra, 10 March 2004, p.22.

67 Optus, *Submission 36*, p.14.

68 Mr Paul Budde, *Submission 6*, p.3.

will not invest in new technology which will erode income from or cannibalise their existing infrastructure revenue. Mr Christopher Eckermann from TransACT Communications said:

> If you are dominant in that revenue and with minimal expenditure you can capture the low end of the data market with ADSL, there is very little incentive to spend a lot of money refurbishing your network. You risk cannibalising existing products.[69]

3.55 Additionally, the Committee was told that Telstra uses its powerful market position to limit infrastructure investment by its competitors,[70] and, that it uses its monopoly status to restrict the development of alternative infrastructure and future technologies which would challenge its market position:

> Telstra has most effectively leveraged its incumbency and market power to deter investments in alternatives to the existing copper access network. Telstra's success in equating DSL with broadband is important in that it delays the emergence of market demand and investor support for alternative access technologies that are truly future-proof.[71]

3.56 Similarly the Committee heard:

> Telstra has a large influence in the progress (or lack thereof) of this process by virtue of being the gatekeepers/owners of the copper loop network, and arguably can slow the process down until or unless they themselves have commercial plans to deploy the more advanced technology, as otherwise they have no incentive to assist in introducing any changes.[72]

3.57 The Committee is concerned that there are limited incentives for Telstra to invest in new technologies and that current Commonwealth programs, such as HiBIS (as discussed in Chapter 1) continue to support Telstra's position of limited investment and the roll out of old technology. Mr Paul Budde told the Committee:

> …countries around the world are now implementing, on a commercial basis, fibre to the home. In my discussions with Telstra, Telstra have clearly indicated that fibre to the home is not on their agenda; they do not see a need for that. They believe that the copper cable network can be upgraded

69 Mr Christopher Eckermann, TransACT Communications, *Committee Hansard*, Canberra, 12 November 2004, p. 48.

70 Optus, *Submission 36*, p.14.

71 Comindico, *Submission 31*, p. 8.

72 Australian Telecommunications Users Group, *Submission 33a*, p. 6.

> and will be sufficient for a long time into the future. If that is the case, are those 30 or 40 countries absolutely stupid? I don't think so.[73]

3.58 While a number of submitters argued the need for increased infrastructure investment and build as a means of increasing broadband competition, the Committee believes that Australia's vast size and low population density does not support a business case for multiple national infrastructure builds:

> We do not have the population density to support lots of people rolling out infrastructure. I think the national challenge is to get the whole nation equipped with one good set of infrastructure. If you think about the pay TV roll-outs, there are 2.7 million homes passed but 2.2 million of those homes are passed by two companies offering very little differentiation in terms of technical capability. If, instead of 2.7 million homes passed with a high level of overlap, you put those figures end to end and we had Optus's 2.2 million and Telstra's 2.5 million, we would have 4.7 million homes passed and in a much better position than they are today.[74]

Access to infrastructure

3.59 Telstra's copper network (the local loop) is the only ubiquitous telecommunications network reaching the majority of Australians and all ISPs and carriers are dependent on Telstra. The Communications Expert Group told the Committee that:

> There is limited competition in the Broadband market because all ISPs and carriers are dependent on either Telstra wholesale broadband carrier products, or the purchase of Telstra backhaul capacity from points of aggregation.[75]

3.60 Telstra is the owner of bottleneck infrastructure and affects operators both upstream and downstream of its infrastructure. It is widely recognised that this vertical integration is a key impediment to competition in broadband services. Despite the declaration of the local loop and attempts by the ACCC at regulation, Telstra maintains control over access to its network by competitors. The ACCC has argued that progress in achieving effective competition in telecommunications has slowed and the regulatory regime directed largely at the incumbent has failed to deliver the level of competition originally envisaged. Comindico submitted that:

> Telstra presently is in a position to control and determine sectoral outcomes and overall industry structure to a greater degree than in most advanced

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73 Mr Paul Budde, *Committee Hansard*, Sydney, 13 November 2003, p.63.

74 Mr Christopher Eckermann, TransACT Communications, *Committee Hansard*, Canberra, 12 November, 2004, pp.51-52.

75 Communications Expert Group Pty Ltd, *Submission 30*, p.4.

> economies. This leads to systemic market distortions in the Australian telecommunications sector. Telstra is the owner of bottleneck infrastructure and acts both a supplier of retail and wholesale services utilising this infrastructure. Regulation seeks to employ purely behavioural remedies to force Telstra not to use this power to its advantage against direct competitors. Put simply, regulatory mechanisms to create competition rely almost exclusively on creating an obligation for one company (Telstra) to sell services it does not wish to sell.[76]

3.61 Similarly, Primus told the Committee that:

> Telstra's control over bottleneck facilities continues to frustrate Primus' ability to deliver broadband services to its customers.[77]

3.62 Resellers without infrastructure are at the mercy of Telstra, which is in a position to use its monopoly over the infrastructure that carries services (backhaul) and of the infrastructure that delivers services to individual users (last-mile services) to 'tighten the collar' on regional competition, thus making network expansion difficult.[78] Mr Ian Slattery from Primus told the Committee that:

> Primus's contention is that competition is far from effective in this area. That is largely due to Telstra's control over the network which all competing carriers require access to in order to supply broadband based services and drive the take-up and penetration of broadband services in this country.[79]

3.63 However, not all submitters were critical of Telstra's behaviour in regard to network access. Mr Charles Reed from Personal Broadband Australia told the Committee that:

> I would like to add that we are purchasing some transmission from Telstra, and in fact they have been terribly constructive to date. They have been very professional about their relationship with us and they have worked very closely with us.[80]

3.64 The ACCC is sensitive to the fact that new entrants are unlikely to enter the market without first purchasing access services from the incumbent and gaining a

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76 Comindico, *Submission 31*, p.10.

77 Primus, *Submission 32*, p.3.

78 Neighbourhood Cable Limited, *Submission 46*, pp.3-4.

79 Mr Ian Slattery, Primus, *Committee Hansard*, Ballarat, 5 February 2004, p.46.

80 Mr Charles Reed, Personal Broadband Australia, *Committee Hansard*, Sydney, 13 November, 2003, p.99.

customer base. Commissioner Ed Willett in a recent paper on challenges in telecommunication competition and regulation said:

> The key challenge for a regulator, therefore, is to develop a framework that provides incentives for competitors to seek access to a fuller set of services over the shorter term while also providing incentives for these competitors to build their own infrastructure and rely less on the incumbent over the longer term.[81]

Access to information

3.65 Information asymmetry is argued to be a barrier to broadband competition as without appropriate geospatial information the telecommunications industry is unable to plan, analyse and invest in broadband infrastructure. The Committee was advised that:

> Telstra's role in the provision of information to a successful broadband industry is critical and well understood. However, subtle differences in what Telstra chooses to provide industry can hinder its competitors, and therefore, the development of a broadband-empowered Australia.
>
> Nowhere are these subtleties more apparent than in the different approaches between the provision of DSL-enabled telephone prefix lists and the provision of exchange boundaries in digital map form….
>
> The impact to industry of not having ready access to comprehensive exchange/ RIM boundary information includes the following:
>
> - uncertainties about market size (inc DSL deprived) in particular areas;
> - reduced opportunity to employ precision-based tools such as Addressed-based DSL prequalification. Such tools have the ability to improve provisioning yields and reduce ordering frustration amongst customers;
> - delayed resource allocation decisions (infrastructure planning, marketing, provisioning) by competitive providers; and
> - frustration amongst State government bodies who have strategies to facilitate competition and reduce entry barriers. These bodies may have negotiated exchange boundaries for their own planning purposes – typically over lengthy timeframes. However, they can't necessarily promise that Telstra would provide competitive providers with the exchange/RIM boundary information critical to a successful commercial implementation.[82]

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81 Australian Competition and Consumer Commission, *Challenges in Telecommunications Competition and Regulation* Accessed on 30 June 2004, URL: http://www.accc.gov.au /content/item.phtml?itemId=518743&nodeId=file40dbc06cdfb57 fn=20040625%20SPAN.pdf

82 Australian Telecommunications Users Group, Callpoint, *Submission 33e*, pp.2-3.

3.66 Members of the Committee were informed that Telstra has four geospatial data sets, of which DCITA has access to two. Telstra's reluctance to make publicly available information which may be perceived as commercial in confidence significantly impinges on Telstra's competitors being able to offer a service or plan the deployment of infrastructure. Comindico told the Committee:

> The problem of information asymmetry – where Telstra holds far more information about network conditions and costs, customer profiles, and competitors' product designs, than those it is competing against – undermines confidence further and makes risk profiles of new ventures almost impossible to quantify.[83]

3.67 During estimates hearing questioning on 24 May 2004, Telstra told the Environment, Communications, Information Technology and the Arts Legislation Committee that it does not charge its competitors for technical information about the copper network for the purpose of accessing HiBIS subsidies to install ADSL or DSLAMs in exchanges. Mr Bill Scales, the Managing Director of Regulatory, Corporate and Human Relations said:

> We do not sell that information….They would talk to our wholesale division and they would provide.[84]

3.68 Despite these claims the Committee has taken evidence which is critical of Telstra withholding or selling, at high prices, geospatial information on its copper network. ATUG argued:

> ATUG understands from industry that … Telstra has elected to charge entities a fee between four and five digits, depending on the combination of geospatial datasets required. In ATUG's view this sizable fee further hinders the development of broadband, particularly for niche regional players who cannot justify these sums.[85]

3.69 Similarly, PowerTel made a submission to the Committee in regard to Telstra's claims on information access raised at the estimates hearing. It stressed the detrimental effect of restricted information access on its ability to compete with Telstra in an effective manner, as was Telstra's intention to charge competitors for information access. PowerTel submitted that:

> It has been PowerTel's experience that the obtaining of ESA [Exchange Service Areas] information from Telstra has been a long and arduous

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83 Comindico, *Submission 31a*, p.5.

84 Mr Bill Scales, Telstra, Senate Environment, Communications, Information Technology and the Arts Legislative Committee, *Senate Budget Estimate Hearings*, Canberra, 24 May 2004, p.84.

85 Australian Telecommunications Users Group Limited, *Submission 33b*, p.2.

> process. PowerTel has sought this information for a considerable period of time from Telstra and found it excessively difficult to obtain. Notwithstanding this, Telstra has recently provided PowerTel with ESA data however, in doing so, Telstra required an acknowledgement from PowerTel that the provision of future ESA data would be subject to new terms and conditions, including the imposition of charges.[86]

Interconnection between wholesale and retail markets

3.70 The Committee has heard evidence which was critical of Telstra's wholesale and retail pricing activities. A number of submissions argued that the structural integration of Telstra is the primary point of failure of telecommunications competition. As ACIL Tasman has argued:

> The market power of the incumbent owner of the local loop is significantly magnified if the owner, as in Telstra's case, is part of a vertically integrated company that also operates downstream from it. Being an essential facility owner and retailer at the one time places the vertically integrated firm in a kind of conflict of interest. The extra power enjoyed by the vertically integrated firm comes from its ability to monopolise areas of the downstream market by providing its own subsidiary with local loop access on favourable terms.[87]

3.71 Comindico told the Committee that Telstra uses its monopoly control of infrastructure to deny wholesale services to competitors:

> There have been many cases reported by wholesale acquirers of Telstra ADSL connection services where the application by a customer for a non-Telstra retail service has been refused on the grounds that Telstra wholesale cannot provide the service over the copper line available to that particular residence, only for that same customer offered an ADSL service by Telstra's BigPond retail arm.[88]

3.72 Additionally, companies who do not own their own infrastructure are subject to Telstra's interconnection charges. The Committee heard that Telstra's wholesale prices are not sufficiently separated from Telstra retail prices. Optus argued that:

> Telstra does not provide competitors with a wholesale local calling product (a local call resale service) at prices that permit effective competition — or that reflect costs Telstra avoids from not retailing local services. Hence Telstra's competitors, when adding their own retailing costs, are required to loss-lead in the provision of local calling via resale if they are to provide consumers with the one-stop shop or complete telephony service. This has

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86 PowerTel, *Submission 55*, p.1.

87 ACIL Tasman, *Submission 7*, p.3.

88 Comindico, *Submission 31*, p.13.

> decreased effective competition in both local and long-distance calling as well as the Internet services market…. If competitors are to match Telstra's retail price, they have little room if any to add in their retail and customer acquisition costs. This price squeeze which erodes access seekers' margins, is promoted by regulation and maximised by Telstra's regulatory gaming behaviour. The end result is that it constrains competition and harms end users. Resale competition is a vital stepping-stone to infrastructure competition.[89]

3.73 Since regulatory intervention in late 2001, retail competition in ADSL has grown with over 200 residential broadband ISPs. The Committee heard that Bigpond Broadband (including ADSL, Cable and Satellite) retail grew by 12% (or 26K) to 240K end customers.[90] However, while the Committee is encouraged by the growth in broadband ISPs, evidence to the inquiry suggests that Telstra as both the supplier of wholesale and retail services uses this position to 'provide it with a seemingly impassable advantage over competitors'.[91] Bond Wireless argued:

> There seems to be a lack of a Chinese Wall between Telstra's wholesale and retail business as we have potential customers that have requested ADSL access for a very long time but upon learning of our solution, Telstra Countrywide suddenly is able to provide MiniMux solutions.[92]

3.74 In mid February 2004 the media reported that Telstra lowered the cost of its ADSL broadband services by $10 to $29.95 per month for 200Mb of data. It also offered unlimited access for $59.95 per month, which was $20 less that the then equivalent Optus service.[93] It was argued that this pricing policy was to undermine long-term competition in the broadband market.

3.75 Telstra's cutting of retail broadband prices was of major concern to its competitors. The Committee was told that the cost of buying bandwidth from Telstra at wholesale had become higher that the retail price and this price was below the wholesale price being charged for its tails in non-metropolitan regions, and was an unsustainably small margin below its metropolitan wholesale price.[94] A detailed case study of this episode is included at page 73 of this chapter.

3.76 The Townsville City Council told the Committee that:

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89 Optus, *Submission 36*, pp.17-18.

90 Bits on Light Pty Ltd, *Submission 23*, p.2.

91 Comindico, *Submission 24,* p. 8.

92 Bond Wireless, *Submission 44*, p.1.

93 The Australian, *Telstra in new internet price war*, 16 February 2004, URL: http://www.theaustralian.news.com.au/printpage/0,5942,8696382,00.html

94 Competitive Carriers Coalition, *Committee Hansard*, Canberra, 10 March 2004.

> Predatory pricing can be anti-competitive if it leads to a vertical price squeeze. In this case, a carrier with significant market power or dominance sets prices below a particular measure of cost, thereby sacrificing short-term profits, with the effect of lessening competition by squeezing out equally efficient competitors and/or deterring future market entry.[95]

3.77 Some broadband wholesalers felt that Telstra's entry-level plan was not uncompetitive - because of the low data limit set - but voiced concerns about Telstra's higher-priced unlimited plan.[96] However, the Committee believes that Telstra's current broadband prices, while appearing positive for the consumer, are anti-competitive in the long-term. By pricing wholesale only marginally below the retail price it is uneconomic and unprofitable for many ISPs to compete. Mr Ian Slattery from Primus said:

> Primus believes it will potentially send smaller ISPs to the wall. That is to put it in simple terms. In a bizarre sort of way, there might be an upside for carriers like Primus whereby we can then acquire them, but I do not think that is necessarily the ideal outcome. It is just a possible outcome. But as I said before, a substantial percentage of Primus's dial-up customer base is at threat here. Bear in mind that the $29.95 plan will lock in customers for 12 months. They will have a Telstra modem. They will then more than likely realise they are exceeding the 200 meg download limit and Telstra will quite happily push them up the price scale.[97]

Accounting separation

3.78 The 2002 *Telecommunications Competition Act* made a number of amendments to the *Trade Practices Act 1974* to enable the ACCC to exercise its record keeping rule (RKP). Under these powers carriers can be required to keep records and supply reports to the ACCC and for those reports to be published.

3.79 In June 2003 the Minister issued a direction to the ACCC requiring it to implement an enhanced form of accounting separation intended to address competition concerns arising from the level of vertical integration of Telstra's wholesale and retail services. The Act requires accounting separation of Telstra's wholesale and retail operations, with Telstra to prepare current cost accounts to provide transparency to the ACCC about Telstra's ongoing and substantial

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95 Townsville City Council, *Submission 15*, p.31.

96 ZDNet Australia, *More ISPs join broadband price war*, 23 February 2004, URL: http://www.zdnet.com.au/news/communications/0,2000061791,39116261,00.htm

97 Mr Ian Slattery, Competitive Carriers Coalition, *Committee Hansard*, Canberra, 10 March 2004, p.18.

wholesale and retail costs, and that Telstra publish financial statements in respect of core interconnection services.[98]

3.80 Telstra summarises accounting separation as follows:

> The Government requires Telstra to make information available showing whether Telstra (i) prices competitor access to its network fairly; (ii) sets its retail and wholesale prices at levels sufficient for competitors to generate satisfactory returns and (iii) does not favour its retail customers compared to its wholesale end-users.
>
> The information can be classified into three limbs:
>
> Limb 1 is the requirement for Telstra to update its regulatory accounting records from historic to current costs – being the costs that would be incurred if the network were to be built using today's up to date technology;
>
> Limb 2 requires that Telstra provide data to the ACCC to show the margins available between Telstra's average retail prices for access/local, STD, IDD and fixed to mobile services and the costs that a competitor would incur in supplying these services if it were relying solely on Telstra's wholesale products for network inputs. The average available margin across the full set of these retail services (the margin of relevance to full service carriers) is also published; and
>
> Limb 3 requires Telstra to publish a series of measurements that compare its performance in terms of new service connections and fault rectification for both wholesale and retail customers.[99]

3.81 The ACCC received its first reports under the three RKPs in November 2003 and these were released publicly by the ACCC in December 2003. To a Question on Notice to the Senate Economics Legislation Committee the Regulator Affairs Division at the ACCC stated that:

> On the basis of the first set of reports the ACCC did not identify any specific areas of concern pertaining to Telstra's treatment of its competitors in using its access services. However the ACCC noted that it was hard to draw firm conclusions from a single set of reports that were based on limited data, and further reports could produce different results. The highly aggregated nature of the reports could also serve to mask specific instances of conduct that may require investigation.[100]

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98 TransACT, Australian Capital Territory Government, *Submission 14*.

99 Telstra, URL: http://www.telstra.com.au/communications/corp/accounting.cfm

100 Australian Competition and Consumer Commission, Senate Economics Legislation Committee, Answers to Questions on Notice, Additional Estimates, 18 & 19 February 2004.

3.82 While there is community and industry support for the introduction of accounting separation of Telstra's wholesale and retail[101], concerns over Telstra's ability to manipulate the reporting process were expressed to the Committee:

> Without going into too much detail about the accounting separation, I am sure Telstra will come out with a lot of imputation test information to support the $29.95 pricing. They will say that, if you look at the suite of broadband services, this pricing passes all the tests. One has to question whether you can actually use the current accounting separation testing regime to bring to them to task on these things. The first report that was run and released earlier this year was, in my view, an example of the system being manipulated in some fashion. The strict guidance of the process was not adhered to, so one would have to question whether you can actually use that information to benchmark the next report and how effective it is.[102]

3.83 The Committee is concerned that the model used for imputation testing to assess whether Telstra is engaged in a margin squeeze is unreliable, as the ACCC has used highly aggregated data which is unlikely to reveal a vertical price squeeze.

Bundling

3.84 The Committee heard that Telstra's vertical integration allows it to implement pricing strategies, such as the 'bundling' of different services into a single offering.[103] Bundling allows discounts to be offered to buyers who acquire numerous services from one supplier. The strategy brings a number of customer benefits:

> Bundling can generate a range of benefits in terms of efficiencies and pro-competitive outcomes. Economies of scope and scale may be achieved through bundling; and consumers may experience retail price reductions and service improvements.[104]

3.85 Similarly, TransACT told the Committee:

> Communications technology convergence has prompted Telecommunications providers to offer bundled services…. Bundling has the capacity to increase efficiencies and to encourage take up through the provision of consumer benefits such as lower prices and single bills. For example, ACTEW is now offering bundled services including ISP services.

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101 Townsville City Council, *Submission 15*.

102 Mr Rajiv Jayawardena, Competitive Carriers Coalition, *Committee Hansard*, 10 March 2004, p. 17.

103 Comindico, *Submission 31*, p.13.

104 Townsville City Council, *Submission 15*, p.30.

> Bundling also offers the potential for smaller Telecommunications providers to form partnerships to offer cheaper services at a price that is competitive with established Telecommunications providers.[105]

3.86 Telecommunications operators benefit from bundling voice, video, and data services into a single offering by increasing average revenue per customer, reducing potential customer churn and attracting new customers by their range of services. Telstra's ownership of a wider range of businesses and services than any of its competitors allows it to offer unique bundles from their own resources. Telstra's competitors argue that some aspects of bundling are anti-competitive:

> On the other hand bundling may have anti-competitive effects. Potentially bundling will make it more difficult for new and developing companies to break into the market as larger telecommunications providers, with the capacity to offer greater discounts, dominate the market.[106]

3.87 Evidence to this inquiry suggests that by bundling services Telstra is able to offer customers retail prices which are below the wholesale price charged to competitors:

> There are situations that appear unjustifiable, such as where elements of bundles are offered to retail customers at prices lower than the wholesale price for which competitors can acquire the same services from Telstra. Comindico understands anecdotally that there are corporate customers who pay less for fixed to mobile calls than the wholesale price other fixed networks pay Telstra to terminate a call from their network to a Telstra mobile phone user.[107]

3.88 Similarly, the Competitive Carriers Coalition told the Committee:

> It impacts on the business. I will mention one example of that to you. Bundling is the underlying methodology of delivering it. Fixed-to-mobile call prices are a very good example…. a recent initiative which allows a 50 per cent discount on a Telstra fixed line to a Telstra mobile service on call prices. That discount is not available anywhere else. No equivalent can be delivered. There is a terminating access wholesale price arrangement on mobile networks which, given that kind of discount off retail, would leave absolutely no margin to compete with. You could not possibly compete with that in offering a service in the retail market, as our colleagues are trying to do.[108]

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105 TransACT, Australian Capital Territory Government, *Submission 14*, p.5.

106 ibid.

107 Comindico, *Submission 31*, p.15.

108 Mr Steve Wright, Competitive Carriers Coalition, *Committee Hansard*, Canberra, 10 March 2004, p.19.

3.89 Neighborhood Cable told the Committee:

> Neighborhood Cable objected to Telstra's notification to the ACCC of its third-line forcing conduct over the bundling of Austar's pay-TV product with Telstra's telecommunications services on the basis that this amounted to anti-competitive conduct. As Telstra pay TV would be simply reselling the standard Austar offering, the public would not benefit from any of the classic results of true competition.[109]

3.90 The Committee heard that package deals involving the bundling of products are an attempt by Telstra to circumvent price regulations.[110] It is concerned that bundling may be detrimental to competition in the longer term by enabling the leveraging of market power from one market to another to foreclose or discourage competition.

> To be clear, I guess any carrier can match it. The point is for how long do you want to take a loss?[111]

3.91 Additionally, the Committee heard assertions that the bundling of Foxtel with Telstra's broadband services was an inhibitor of market competition. Dr Walter Green, the Director of Communications Expert Group, told the Committee:

> There is no doubt that the bundling of Foxtel with Internet and telephone services, where significant reductions are offered on Foxtel, is proving an inhibitor to competition, simply because the other carriers and Internet service providers do not have the same access to Foxtel that Telstra has.[112]

3.92 Telstra's ability to bundle services was argued to restrict Telstra's competitors from achieving adequate returns on their infrastructure investments. Mr Fred Grossman argued:

> I think it is public knowledge that we at Neighborhood Cable opposed an issue that we thought was third-line forcing where Telstra applied to the ACCC to allow itself to bundle the Austar pay TV product and rebrand. We claimed in that submission … that that was doing absolutely nothing for competition, in fact stifling competition. The ACCC in its wisdom saw fit to allow Telstra to bundle. We believe that adds absolutely no value. It is the same product to the same customers, just a little bit branded build, stifling our competition.

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109 Neighbourhood Cable, *Submission 46*, p. 4.

110 ACIL Tasman, *Submission* 7, p. 51.

111 Mr Ian Slattery, Competitive Carriers Coalition, *Committee Hansard*, Canberra 10 March 2004, p.10.

112 Dr Walter Green, Communications Expert Group, *Committee Hansard*, Canberra, 12 November 2003, p.38.

> Why does that bother us? It bothers us—going back to the opening statement—because we have invested $60 million of private funds to build a true broadband network for 250,000 local loop customers. We need to make a commercial payback on that, as did railways and anybody else who did it a century ago.[113]

3.93 The Committee appreciates that consumers find it easier to receive bundled services with a single bill.[114] However, the Committee is concerned that few competitors of Telstra can offer a similar service:

> Telstra's ability to bundle wholesale access elements with a full suite of services and content, including Foxtel Pay TV and mobile voice services, is the most obvious manifestation of its ability to use its structural integration to curtail inroads into its market share by competitors. This is particularly evident in corporate and residential broadband markets.[115]

Peering and backhaul costs

3.94 The Department of Communications, Information Technology, and the Arts defines 'peering' as the exchange of traffic between two internet service providers (ISPs) on a settlement-free basis. In Australia there are currently four companies peered and accepted as Tier 1 providers for Internet backbone. These are Telstra Bigpond, Telecom NZ/AAPT, Ozemail/Worldcom, and OptusNet. Optus told the Committee:

> The arrangements that we have for peering are effectively a more efficient version of the alternative approach, which would be paying the counterparty for data we download from their network and them paying us for data they download from our network.
>
> Our approach has been consistent in that we have a set of objective criteria as to who we will enter into a peering arrangement with, which are based essentially on traffic volumes. The underlying economic factors that they relate to are the amount of investment that we need to be put into a network to have points of presence that are widely distributed and a capacity to physically carry and receive traffic. There is no particular magic about who it is that we peer with—it is just whoever has a volume of traffic that is broadly equivalent to the volume that we have.[116]

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113 Mr Fred Grossman, Neighbourhood Cable, *Committee Hansard*, 5 February 2004, p.27.

114 Small Enterprise Telecommunications Centre Limited, *Submission 29*, p.6.

115 Comindico, *Submission 31*, p. 21.

116 Mr Paul Fletcher, Optus, *Committee Hansard*, Sydney, 13 November, 2003, p.123.

3.95 All other carriers and ISPs rely on these Tier 1 providers for transit arrangements. Non Tier 1 providers were critical of the current peering arrangements. Neighborhood Cable told the Committee that:

> Because of Telstra's position in the marketplace and its peering arrangements it does not have the same backhaul costings or data costings that we do. Therefore, how does a competitor compete with an unlimited product when it is not able to purchase something that is unlimited?[117]

3.96 The Townville City Council submitted that:

> Council is concerned that existing peering arrangements that operate between the nation's 'top 4' Internet Service Providers are creating cost disadvantages for small regional providers. Such a situation has potential anticompetitive consequences and could either squeeze otherwise efficient competitors out of the market or deter future market entry.[118]

3.97 The Committee heard that Internet peering is an important factor in the cost of domestic bandwidth and that the lack of affordable peering arrangements makes international bandwidth cheaper than domestic bandwidth for smaller ISPs:[119]

> Again, I will make it very simple: we need to connect our networks back to the Internet world and, in most cases, to use the backhaul capacity and the peering. To remain competitive you have to look at what pricing is out in the marketplace and how you price into that, and you have to be able to buy for less than you need to sell for. We find that difficult in certain circumstances…. There is not a large capacity to negotiate.[120]

3.98 The costs associated with international peering arrangements was raised by ATUG's Ms Rosemary Sinclair:

> The way we see it is that the current situation creates a negative impact for Australian users. The cost to Australian providers of getting traffic to and from the US is more expensive because the Internet peering arrangements do not apply to them. The reason people say that we have to charge users for downloads and that we have to have download caps and that prices have to be download limit related is that that is the way we buy the service. Within tier 1 carriers internationally, they swap traffic without these kinds of imposts and charges. We see an opportunity for this matter to be raised between Australia and the US—which is the main focus of our concern—as part of the free trade agreement. If we are interested in economic growth and

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117 Mr Fred Grossman, Neighborhood Cable, *Committee Hansard*, Ballarat, 5 February 2004, p.28.

118 Townsville City Council, *Submission 15*, p.31.

119 Bits on Light Pty Ltd, *Submission 23*, p.7.

120 Mr Fred Grossman, Neighborhood Cable, *Committee Hansard*, Ballarat, 5 February 2004, p.30.

> international cooperation, and in the knowledge society and the information economy that we all talk about then cost-oriented access is an important fundamental tool.[121]

3.99 Dr Paul Brooks when on to argue that:

> Few people know that Telstra is part of that club of tier 1 peering carriers. By virtue of putting its equipment over in the US, it peers - with no data charges and no interconnect charges - with the United States and the international Internet backbone operators. But Telstra's argument is that it has to pay for the international circuit that links Australia to the US, to carry that traffic on. Part of that was built with shared funds from the American carriers, in terms of building the physical fibre infrastructure and rolling out the cable ships.
>
> It is also not metered on a cents per megabyte rate. They connect into the Internet, the traffic gets exchanged at no charge and the link between Australia and the US - even though, essentially, the broadband service is paying itself for the transmission carriage - is the same amount per month or per year, regardless. That is true of other carriers which have capacity on the under-sea fibre cables as well. By putting equipment in the US, you can interconnect at no cost with all the other carriers and essentially become part of that tier 1 peering club. Some carriers in Australia are already part of that, but the recognition that they are no longer paying US carriers for content has not filtered through into their pricing models or, obviously, their arguments to various inquiries and commissions.[122]

3.100 Mr Maha Krishnapillai from Macquarie Corporate Telecommunications also commented that:

> Domestic peering is the gang of four I referred to earlier: Telstra, Optus, AAPT and OzEmail. They have a domestic peering arrangement that was entered into under the auspices of the ACCC in 1998. This has exactly the same impact on the Internet industry and, therefore, broadband in Australia, whereby those four carriers are able to swap traffic at no cost and either maintain a higher profit margin or gain a higher market share.[123]

3.101 The Committee heard that backhaul costs are charged on a distance basis and therefore rural customers are financially disadvantaged. Mr Jonathan Withers from Personal Broadband Australia noted that government policy was

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121 Ms Rosemary Sinclair, Australian Telecommunications Users Group, *Committee Hansard*, Sydney, 13 November 2003, p. 16.

122 Dr Paul Brooks, Australian Telecommunications Users Group, *Committee Hansard*, Sydney, 13 November 2003, p.17.

123 Mr Maha Krishnapillai, Macquarie Corporate Telecommunications, *Committee Hansard*, Sydney, 13 November, 2003, pp.19-20.

focused largely on supporting infrastructure roll-out in regional and rural areas with little regard for the cost of back-hauling traffic in these rural areas:

> The thing that generally degrades the business case, if you like, for these rural areas, is the cost of back hauling the traffic…. While a lot of previous government policy has put money into the capital requirements of putting infrastructure into rural areas that does not address what we call the ongoing opex requirements of supporting that. One of the things we note is that the Internet is the first telecommunications space which has absolutely no distance based charging; you can access a site here in Sydney, over in the US or in the UK for exactly the same price—it is a characteristic of the Internet. What works against you in terms of wide-area deployment is that at the moment the back haul costs are not following the same model, so it is considerably more expensive to provide access in rural areas.[124]

3.102 The issue of backhaul costs is complex and significant, as even modest bandwidths of two megabits per second for some rural locations can cost in the order of $100,000 per year.[125]

Universal Service Obligation

3.103 The Universal Service Obligation (USO) ensures that under the *Telecommunications (Consumer Protection and Service Standards) Act 1999* standard telephone services, payphones and prescribed carriage services are reasonably accessible to all Australians on an equitable basis, wherever they reside or carry on business. Telstra is currently the only designated Universal Service Provider and this has been identified as an impediment to broadband competition. Under the USO other carriers cross-subsidise Telstra by in excess of $50 million per annum to provide services in non-metropolitan Australia. The Committee has been told that, where capital is already limited, the USO is another major impediment to smaller companies investing in infrastructure.[126]

> Smaller carriers operate on low profit margins, and the USO [that is based on income or revenue] significantly reduces their available capital for investment in broadband infrastructure. There is one case where a carrier gave up its licence because of the impact of the USO, and withdrew from providing broadband services in areas not serviced by Telstra. ISPs are further penalised by the USO, as their USO contribution is based on their

124 Mr Jonathan Withers, Personal Broadband Australia, *Committee Hansard*, Sydney, 13 November, 2003, p.90.

125 ibid, p.96.

126 Communications Expert Group, *Submission 30.*

> total Internet and Telecommunication revenue. There appears to be an emerging market for small carriers servicing ISP needs.[127]

3.104 Submitters were critical of the USO, and the policy position which supported it, as it did not encourage infrastructure investment. Dr Michael Bourk from the Small Enterprise Telecommunications Centre argued:

> We lament the reduction in competition—and, in particular, facilities competition, which is really the engine, if you like, of competition in the long term. We regret that. We think that, to a degree, that is a problem with policy. Had the USO perhaps been able to naturally evolve as the network was evolving and as we moved to an ISDN network, we would not be facing a lot of these issues, because the bootstrap would have already naturally occurred. Then you already have an increased, advanced take-up, if you like, of broadband already occurring and making provision for the competitors. So we see that as a policy problem.[128]

3.105 A number of submitters argued that the USO had reduced the growth in broadband infrastructure and consequently reduced the competitive pressures on Telstra. Optus submitted that the current USO funding arrangement that requires competitive carriers to fund the provision of Telstra's service in rural and regional Australia has a number of negative consequences for the promotion of competition:

- in an environment where competitive carriers are struggling to make inroads against the continuing massive dominance of the incumbent, the USO regime actually requires competitive carriers to cross-subsidise Telstra's activities, and thus strengthen Telstra's position;

- that the USO contribution acts as a significant disincentive for competitive carriers to provide their own regional and rural services. When a carrier is forced to pay another party to deliver standard services, there is no incentive to itself provide standard services, and a much more limited incentive to provide any additional services;

- that the contribution of other carriers to Telstra bolsters the significant value Telstra obtains from being the national carrier, and providing an ubiquitous service. These benefits are not considered when the USO is valued. Therefore, other carriers are paying Telstra to entrench its rural and regional dominance. Telstra makes much of its Australia-wide presence in its marketing – yet that presence in much of Australia is substantially cross-subsidised by Optus and other carriers; and

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127 Communications Expert Group, *Submission 30*, p. 5.

128 Small Enterprise Telecommunication Centre, *Committee Hansard*, Canberra, 12 November 2003, p.29.

- that there is no understanding amongst rural and regional consumers of the USO regime, and that the industry as a whole contributes to the provision of their standard telecommunications services. This creates a perception amongst regional and rural consumers cementing their loyalty to the incumbent, and making change less likely.[129]

3.106 Submitters to the inquiry argued that the USO could be modified in line with National Communications Fund or Networking the Nation type funding rather than being paid directly to Telstra. Carriers who are then interested in rolling out services to regional areas could access this funding on a dollar for dollar basis.[130]

3.107 The Minister for Communications, Information Technology, and the Arts released the Review of the Universal Service Obligation and Customer Service Guarantee in June 2004. The review analysed the current arrangements for costing and funding of the USO and whether network extension and trenching costs are impeding access to USO services. The findings of this review are discussed in the Committee's recent report on the Australian telecommunications network.

Walled Garden

3.108 It has been argued that Telstra's large retail customer base and network infrastructure has allowed the organisation to develop a pricing regime which keeps customers tied to the Telstra network. Described as a 'walled garden' or 'castle', end users are charged for data they download above a monthly minimum. Telstra uses its telecommunications network to establish itself as a content aggregator, and Telstra retail broadband customers accessing data from a Telstra website receive an exemption from their download limit for that data. Describing the strategy last year, an article in *The Australian* reported that:

> It involves Telstra's power as the owner of the bulk of Australia's telecommunications infrastructure and its ability to charge you more if you shop and surf anywhere else on the Internet other than a site of Telstra's choosing. Simply, Telstra is trying to herd the customer into its cyber castle … Telstra will lure them then slam the drawbridge shut. If they travel outside the castle a heavy toll will be exacted as download charges zoom.[131]

3.109 The Committee heard that individuals find this facility useful. Mr Steve Ireland told the Committee:

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129 Optus, *Submission 36*, p.22.

130 Dr Walter Green, Communications Experts Group, *Committee Hansard*, Canberra, 12 November 2003, p.40.

131 Comindico, *Submission 31*, p15.

> I actually take advantage of Telstra's "Free Sites" in which they don't measure downloaded data.[132]

Regulation

3.110 Industry regulation plays a significant role in the promotion or restriction of competition in the telecommunications sector (as outlined in Chapter 2). The Committee heard that the Australian Government is now reliant on the private sector as the primary driver for investment decisions, innovation and competition practices.[133] This strong reliance on the market has been seen as a key impediment to broadband growth:

> SETEL contends that the slow rate of uptake of broadband and e-commerce is primarily due to Policy failure. The Commonwealth Government has generically promoted the importance of broadband services and their usage to the community in general but has failed to implement policies to ensure that all users have access to ubiquitous, affordable broadband services.[134]

3.111 Neighborhood Cable was critical of the regulatory framework under which they and other carriers were given access to existing infrastructure:

> Government also needs to review the legislative framework under which infrastructure builders can access and secure tenure on existing infrastructure. For example, a carrier is entirely dependant on the utility whose infrastructure it must rent in order to construct a network. There is generally only one utility company, which has the potential to create a significant imbalance of bargaining power. This can result in the unreasonable shifting of costs and liabilities and insecurity of tenure over the long term.[135]

3.112 Within the current regulatory regime Telstra's continued market dominance is seen as a deterrent to many investors. Witnesses have told the Committee that they require a clearer indication from government on the management of Telstra's anti-competitive behaviour before they will commit to infrastructure investment:

> Investors in the present market circumstances are particularly “shy” of investing in the disruptive, higher risk end of the technology spectrum. An important reason for this is that they lack confidence in the competitive environment. The evidence of Telstra’s ability to use its size and market

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132 Mr Ireland, *Submission 8*, p.1.

133 The Institution of Engineers, Australia, *Submission 25*, p.6.

134 Small Enterprise Telecommunications Centre Limited, *Submission 29*, p.5.

135 Neighborhood Cable, *Submission 49*, p.8.

> power to curtail the entry of new technologies is powerful. The view that a new entrant will not get a "fair go" at leveraging its investment in new technologies is widespread, and supported by the ACCC's own analysis.[136]

3.113 Similarly, the Competitive Carriers Coalition told the Committee that:

> I think any suggestion that in this environment anybody else would come in to put billions of dollars on the table to invest in another network, particularly in the light of the events we have seen in the last few weeks, is optimistic in the extreme. I think these events, as much as anything we have seen in the last two years, says very clearly to investors: 'You would be insane to think that you can put money on the table and get a reasonable return on your investment. You are going to lose a lot of money for a long time.'[137]

3.114 The Committee heard evidence which was critical of the current 'light touch' regulatory regime, under which it is claimed Telstra acts with impunity. SETEL claimed:

> The application of 'light touch' regulation has resulted in the dominant carrier, Telstra, being able to increase prices of services to consumers with what appears to be a high degree of impunity.[138]

3.115 Similarly, the Competitive Carriers Coalition argued:

> From our observation, this means the regime itself is too weak, the administration of the regime is too weak or it is a combination of both of them. Ultimately, though, it shows that Telstra is unmanageable because it is structurally predisposed to manipulating wholesale and retail market power in ways to disadvantage other participants in the market.[139]

3.116 Additionally, submitters commented on the high cost of an inefficient regulatory system. Mr Ian Slattery of Primus told the Committee:

> The ACCC believes the current regulatory regime is ineffective. Its view is that the recent accounting separation legislation and the current access arrangements are unlikely to improve that. It also is of the view that, as opposed to what was intended in the 1997 Trade Practices Act amendments

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136 Comindico, *Submission 31*, p.8.

137 Mr David Forman, Competitive Carriers Coalition, *Committee Hansard*, Canberra, 10 March 2004, p.22.

138 Small Enterprise Telecommunications Centre Limited, *Submission 29*, p.3.

139 Mr David Forman, Competitive Carriers Coalition, *Committee Hansard*, Canberra, 10 March 2004, p.10.

> - when telecommunications was opened up to full competition - we now have more regulation and increased costs on the industry instead of less.[140]

3.117 The Committee heard from a number of witnesses about the ineffectiveness of the current regulatory regime and cited the recent Telstra/ACCC dispute over Telstra's lowering of ADSL retail prices to below wholesale prices as an example of this. The Case Study below outlines the situation.

CASE STUDY: The effectiveness of the regulatory system

On 15 February 2004, Telstra Bigpond announced it would offer an ADSL 256Kbps retail service for $29.95 per month. This price was claimed to be lower than the wholesale price which Telstra was offering to some of its competitors. Telstra defended its action by claiming that the reduction in price was to stimulate the retail broadband market - which had been declining - and competition more generally. In response to Telstra's new ADSL retail prices, Optus and a number of smaller ISPs announced cuts to their broadband plans to bring them into line with Telstra. However, smaller operators claimed that these prices were unsustainable and Telstra's 'pricing squeeze' was an attempt to manipulate the market.

In a submission to the Committee on 27 February, the Competitive Carriers Coalition wrote that:

> *The CCC members believe that these price changes represent a wilful and calculated attack on the integrity of the wholesale ADSL market. It is clear that Telstra is engaged in manipulating the development of the ADSL market by forcing too-high wholesale prices on independent service providers and by favouring its own retail arm to the detriment of other providers*.[141]

Telstra's competitors went to the ACCC claiming that Telstra was engaged in anti-competitive behaviour. On 6 March the ACCC issued Telstra with a consultation notice. On 9 March the consultation notice was extended by two days when Telstra requested more time to respond to the case of anti-competitive behaviour asserted by the ACCC.

In line with requests from the ACCC to reduce its wholesale prices to levels which were competitive, Telstra lowered its wholesale price.

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140 Mr Ian Slattery, Primus, *Committee Hansard*, Ballarat, 5 February 2004, p.47.

141 Competitive Carriers Coalition, *Submission 50*, p.3.

However, as Mr Simon Hackett, the Managing Director of Internode, argued:

> *It's a myth that $29.75 is the wholesale access price compared to the Telstra $29.95 retail price…. The $29.75 charge is EX GST. When you remove the GST from $29.95, it becomes $27.23 – or $2.52 BELOW the tail circuit charge. Also, that tail circuit charge is only one component of the full cost to mount a working ADSL service. When you add the other necessary costs in, you are up at more like $35 as a minimum underlying cost.*[142]

On 19 March the ACCC issued a Part A Competition Notice to Telstra in relation to the pricing of Telstra's broadband internet services. The ACCC noted that it had reason to believe that Telstra had engaged and was engaging in at least one instant of anti-competitive conduct and was using its substantial market power to lessen and hinder competition.

Since at least 15 February 2004:

a) Telstra has supplied, and continues to supply, wholesale Broadband Services to its Wholesale Customers at wholesale process set at a level whereby there was and is only a small positive or negative difference between those wholesale prices and the Retail Prices; and

b) Telstra has refused, and continues to refuse, to supply wholesale Broadband Services to its Wholesale Customers at prices other than wholesale prices set at a level whereby there was and is only a small positive or negative difference between those wholesale prices and the Retail Prices.[143]

The Part A Competition Notice against Telstra opened the way for a Part B Competition Notice to be issued with a possible fine of $10 million - rising by $1 million a day - and legal action from Telstra's competitors.

On 23 March Telstra's strategy was being commented on in the following terms:

> *At this stage it appears Telstra's strategy is to defuse the threat of the competition notice by commercially agreeing on deals on wholesale prices. Presumably it believes the potential volume gains,*

142 Simon Hackett, Managing Director Internode, Opinion from Australian IT.com.au readers, *Broadband price squeeze*, 22 March 2004, URL: http://australianit.news.com.au/common/print/0,7208,897342361542566nbv6,00.html

143 Australian Competition and Consumer Commission, *ACCC issues competition notice to Telstra over broadband internet pricing*, 19 March 2004, URL: http://www.accc.gov.au/content/item.phtml?itemId=490779&nodeId=file405a5f8237919&fn=Competition%20notice.pdf

and the potential to migrate entry-level customers to higher-capacity, higher-margins plans, will still offset the loss of wholesale margins.[144]

On 1 April Telstra announced two new wholesale access packages aimed primarily at addressing the ACCC's Competition Notice and the concerns of Telstra's wholesale customers. Telstra offered its wholesale customers the following options:

> ***'Protected Rates' Option***.
> *This option provides wholesale prices at a 40 per cent discount to retail access and connection prices across all plans. Wholesale prices will be tied directly to BigPond's pricing plans by taking BigPond's effective starting retail prices and deducting a 40 per cent discount for retail costs and further deductions to cover other wholesaling costs. This will suit customers who want certainty over wholesale/retail pricing relativity.*
>
> ***'Growth' Option.***
> *This package will assist broadband ISPs to drive profitable growth across the spectrum of retail pricing. It will offer attractive price reductions for higher speed plans, on the basis that sustainable industry outcomes can be achieved via migration of retail end-users from lower value plans. It will suit those ISPs who see the commercial opportunity to upgrade their customers to higher-speed plans; and who want full flexibility over their retail pricing options.*[145]

It was reported that Telstra's price reductions appeased the ACCC's current concerns with ACCC Chairman, Mr Graeme Samuel, stating that Telstra's new offer 'appears to be a victory for commonsense'.[146] However, while the ACCC was apparently satisfied with the outcome, many of Telstra's competitors were critical, with a number of Telstra's largest wholesale customers claiming that Telstra had not consulted with them on the new pricing arrangements and that they had heard of the new pricing arrangements via the media. Additionally, it was claimed that the options available to Telstra's wholesale customers tied them into Telstra's retail structure. It was argued that the 'Protected Rates' Option introduced a third variable cost for ISPs and the 'Growth' Option had not dropped the cost of 256k port pricing despite the fact that this was the area in which the current price squeeze existed.[147]

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144 Stephen Bartholomeusz, Sydney Morning Herald, *Telstra strung up by its broadband plan*, URL: http://www.smh.com.au/articles/2004/03/22/1079939582767.html

145 Telstra, Media Release, 1 April 2004, *Low broadband prices preserved*, URL: http http://www.telstra.com.au/communications/media/mediareleases_article.cfm?ObjectID=31526

146 Kate Mackenzie, The Australian, *Telstra BigPond Backflip*, 1 April 2004, URL: http://australianit. news.com.au/common/print/0,7208,9146732^15318^^nbv^15306,00.html.

147 Phil Sweeney, Whirlpool News, 6 April 2004, URL: http://whirlpool.net.au/article.cfm/1257

Commentators noted that the new pricing structure was largely an attempt to deflect ACCC intervention:

> *Telstra appears to have attempted to move focus away from that by introducing bizarre wholesale offerings on the side, which appear to be ultimately unattractive to their customers*.[148]

On 9 June it was reported that the Competition Notice was still alive and as of that date Telstra had accumulated $91 million in possible fines. *The Australian* indicated a seeming hesitancy from Mr Samuel to act and Telstra's propensity to:

> *Fight the case in court, but the fabulously paranoid telco never ever makes it past the courthouse steps, preferring always to let a large sack of shareholders' cash do the talking.*[149]

Reported on 12 June, Mr Bruce Akhurst, Telstra's group managing director for wholesale defended Telstra's action as merely stimulating the market and providing broadband at affordable prices. The discounting had led, over a five-month period, to a 46% increase in broadband subscriptions. The action led Telstra to forecast that it would sign up its millionth broadband customer by July 2004, six months ahead of earlier forecasts.[150]

On 25 June, the ACCC warned that the Competition Notice still remained in force and that a number of potential options were open to the Commission in relation to the notice.[151]

On 19 July 2004 the ACCC issued a further media release stating that it still had reason to believe that Telstra was engaged in anti-competitive conduct of a kind described in the Competition Notice. Consequently, the ACCC had decided to keep the notice in force.[152]

This situation prevailed at the time of the Committee's finalisation of this report.

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148 Phil Sweeney, Whirlpool News, 6 April 2004, URL: http://whirlpool.net.au/article.cfm/1257

149 Michael Sainsbury, The Australian, *Telstra taunts the watchdog*, 9 June, 2004.

150 Blair Speedy, Weekend Australian, *Broadband cuts 'altruistic'*, 12 June 2004, p.35.

151 Australian Competition and Consumer Commission, *Challenges in Telecommunications Competition and Regulation*, p. 3. At 30 June 2004, URL: http://www.accc.gov.au/content /item.phtml?itemId=518743&nodeId =file40dbc06cdfb57&fn=20040625%20SPAN.pdf

152 Australian Competition and Consumer Commission, *ACCC leaves competition notice in force,* 19 July 2004, URL: http://www.accc.gov.au/content/index.phtml/itemId/524972/fromItemId/ 2332

3.118 The Committee heard a substantial amount of evidence that claimed that the current regulatory framework which relies on sanctions by the ACCC was largely ineffectual against Telstra's considerable market dominance. The Competitive Carriers' Coalition argued that Telstra engaged in anti-competitive behaviour with little concern for sanctions that the ACCC may bring against it:

> In other words, the ACCC has already used the most powerful and direct weapon in its regulatory armoury for dealing with anti-competitive activity in precisely this market. That Telstra has been willing to deliberately pursue a course of action that would result in the spectre of the same sanction being applied again shows that Telstra has no fear of competition notices.[153]

3.119 The ACCC has recently argued there was not necessarily a contradiction between access or service-based competition on the one hand and facilities-based competition on the other. And there remained the need for a combination of wholesale, access-based and facilities-based competition under the current regulatory regime in recognition that full-based competition is not viable in all areas and, for more remote areas, may not be viable for some time to come. In seeking to obtain the right regulatory balance, Commissioner Ed Willett said:

> The Commission has been cautious of regulating end-to-end wholesale broadband services under the telecommunications access regime contained in the Trade Practices Act.
>
> We are mindful that doing so could result in long-term regulatory dependence that may stifle or delay the move towards more sustainable long-term competition. Rather, the Commission has relied on the competition provisions of the Act to address anti-competitive concerns in wholesale broadband markets as they have arisen. We will continue to monitor the effectiveness of this approach in light of any future industry developments in this area and cannot rule out the need for a more direct regulatory approach to this service.[154]

Conclusions

3.120 The Committee has identified a number of impediments to the uptake of broadband services in this chapter. These include issues of network capability, cost and customer knowledge. The Committee also examined the current impediments to competition in broadband services. Significant amounts of evidence suggest that Telstra's monopoly position and control over the telecommunications infrastructure and its vertically integrated structure was a point at which broadband competition broke down. It is apparent that in light of the barriers to competition

153 Competitive Carriers Coalition, *Submission 50*, p.3.

154 Australian Competition and Consumer Commission, *Challenges in Telecommunications Competition and Regulation* At 30 June 2004, URL: http://www.accc.gov.au/content/item.phtml?itemId=518743&nodeI=file40dbc06cdfb57&fn=20040625%20SPAN.pdf

the current regulatory regime will need to be reviewed. As Dr Michael Bourk from SETEL told the Committee:

> The problem remains the incredible incumbent strength of Telstra. That really does need to be addressed. It is a complex issue; we make no bones about that. But when you still have one carrier making over 90 per cent of the profits in the entire industry that is an issue that needs to be addressed.[155]

3.121 The following chapter outlines a variety of proposals that may address the issues raised in the evidence.

155 Dr Michael Bourk, Small Enterprise Telecommunications Centre Limited, *Committee Hansard*, Canberra, 12 November 2004, p.29.

Chapter 4

Convergence, content, competition and the future of broadband services

Introduction

4.1 This chapter examines the implications of communications technology convergence and the relationship and impact of content ownership and distribution on competition in broadband services. The chapter provides a number of recommendations which the Committee, after considering all the evidence to the inquiry, believes will enhance the state of competition in the broadband market. The Committee concurs with the sentiments expressed by Commissioner Ed Willett of the ACCC, who said:

> I should emphasise that in highlighting our concerns over the existing structure of the industry, our aim is not to try to stop Telstra from competing vigorously in emerging markets nor legitimately exploiting the economies of scale and scope it brings to these markets. What we want to see is both Telstra and other providers competing more effectively with each other and in so doing providing their customers with better and more affordable services.[1]

Technology convergence

4.2 In the past, different forms of communications, such as radio, free to air television, pay television, mail, newspapers, data transmission and voice telephony, used separate infrastructure platforms and technologies to transmit information. Over the last decade it has become increasingly possible for several, or all, of these services to be provided over a single telecommunications infrastructure platform. This process is being facilitated by the increasing use of digital rather than analogue transmission systems which can use the same method of transmission regardless of what type of information is being transmitted. This process is referred to as convergence. Mr David Edmonds, Director General of Telecommunications, Oftel has said that:

> The old differences between television, radio and telephony for the conveyance of different services and information are becoming outdated. What we have now are increasingly common electronic communications services. People will still use different networks to seek broadcast type content. But much of that content is transferable between different networks

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1 Australian Competition and Consumer Commission, *Challenges in Telecommunications Competition and Regulation* At 30 June 2004: http://www.accc.gov.au/content/item.phtml?itemId=518743&nodeId=file40dbc06cdfb57&fn=20040625%20SPAN.pdf

> now and will be increasingly transferable in future as the digital revolution drives increasing capacity across the networks.[2]

4.3 The capacity of broadband infrastructure to carry multiple services was highlighted by the Institution of Engineers, Australia who told the Committee:

> Broadband networks can carry any digital content, enabling the convergence of voice, data, photos, music and video and leading to service bundling resulting in lower subscription costs and improved services with new capabilities.
>
> Broadband telecommunications have the potential to compete directly with existing cable TV, free to air television and free to air radio networks. Broadband telecommunications with sufficient capacity enables high quality audio and video to be downloaded in real time.[3]

4.4 Practical examples of convergence include the use of HFC cables, originally designed for pay TV, to carry voice telephony and broadband; the use of copper voice telephony networks to carry broadband via ADSL; and the use of mobile phone networks to carry SMS messages, photographs and data. This trend is likely to continue and new networks are likely to be designed and built with the objective of carrying as wide a variety of services as possible. An example of this is the TransACT network in Canberra which provides voice telephony, broadband Internet access, pay TV, rebroadcast of free to air television, and video on demand. The ACT Government told the Committee:

> TransACT has made significant inroads into convergence. TransACT's network utilises existing electricity poles to give homes and businesses in Canberra a range of communication services, including a permanent 'high speed' data connection, allowing the provision of a wide range of service and content partners. All of these services including video on demand; permanent 'high speed' connections to the Internet; free to air and pay television services; and mobile and fixed line telephone services are delivered through the one medium.[4]

4.5 In recent years the demand for bandwidth has risen dramatically, driven by both the development of the Internet and the emergence of new, high bandwidth, formats such as high definition and interactive television.

4.6 Communications technology convergence has allowed telecommunications providers to offer bundled services. While bundling has cost benefits for customers

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2 Australian Telecommunications Users Group, *Submission 33*, quoting Mr David Edmonds, Director General of Telecommunications, Oftel, in a paper delivered to the Institute for Public Policy Research, 11 October 2001.

3 Institution of Engineers Australia, *Submission 25*, p. 9.

4 ACT Government, *Submission 14*, p 4.

the Committee heard that there were also anti-competitive effects, as discussed in Chapter 3. The Townsville City Council told the Committee:

> Convergence can have anti-competitive impacts particularly when a dominant carrier has ownership control over a number of potentially competitive networks and platforms. This is compounded by legislative restrictions on the ability of content creators to deliver converged telecommunications and data services (e.g. video) over new platforms that compete with traditional broadcast media.
>
> A key limiting factor in Australia is the cross-ownership by the dominant national telecommunications carrier and the nation's major pay-TV broadcaster. Telstra's 50% stake on Foxtel (and the Foxtel HCF cable network) creates an anti-competitive environment vis-à-vis Telstra's xDSL offerings. This has entrenched the market dominance of Telstra in ways that are unique to the western world.[5]

4.7 Additionally, the Committee heard that cross product bundling 'convergence' from large market participants, such as Telstra, has the danger of:

> leading to cross subsidisation from more profitable products (where there is less competition) to less profitable products (where there is more competition). This can lead to undesirable competition outcomes.[6]

4.8 However, Telstra has argued that technology convergence is not a threat to competition in broadband markets.[7] cBallarat told the Committee that communications technology convergence was significant for economic growth in regional centres as it will:

> Increase service competition, lower prices, and simpler service options will only encourage consumers to sign-on for broadband access.
>
> As more types of e-services are available online (consumer and business to business services), all of which require broadband access for ease of use, the demand for better/easier/faster access in provincial and rural communities will increase.[8]

4.9 The importance of the impact on new technologies and delivery platforms on broadband competition was recognised by the ACCC. Commissioner Ed Willett argued in late June 2004 that:

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5 Townsville City Council, *Submission 15*, p.32.

6 Bits on Light Pty Ltd, *Submission 23*, p.8.

7 Telstra, *Submission 21*, p.28.

8 cBallatrat, *Submission 49*, p.3.

> The new investment we are seeing is fortunately being focussed on the provision of services using new IP-based technologies on existing networks as well as the deployment of completely new access networks based on wireless technologies.
>
> These are potentially significant developments in promoting competition of the broader telecommunication, IT and media industries over time. If these new services gain sufficient traction, they can certainly provide a real competitive threat to existing networks and thereby provide the kind of competitive impetus in services such as broadband and voice that I spoke about earlier. For that reason, the Commission will be particularly vigilant in stopping any conduct by powerful incumbents aimed at stymieing the efficient development of such services.[9]

4.10 While many consumers remain satisfied with the services which can be delivered by traditional technologies; the evidence received by the Committee during this inquiry and during its inquiry into the Australian telecommunications network, clearly shows that businesses and consumers want affordable access to high bandwidth services. Whilst the focus of this inquiry is on broadband competition, in a convergent industry it is likely to become increasingly difficult to consider issues affecting broadband in isolation from developments in the whole telecommunications sector.

Meeting the demand for higher capacity

4.11 To meet the demand for higher bandwidth, telecommunications carriers have updated or adapted existing networks to provide greater capacity. Copper voice telephony networks such as Telstra's CAN have been conditioned to provide DSL services such as ADSL. Cable networks, originally designed to provide pay TV, have been enabled for Internet access via cable modems and for voice telephony. Telstra has announced that it will digitise its HFC cable network so as to provide a greater range of pay TV services. Similarly, successive generations of mobile phone technology are capable of supporting a ever wider range of services.

4.12 However, there are limits to the extent to which these existing networks can be adapted to meet the increasing demand for bandwidth. The ability to squeeze more capacity out of the copper network through further developments in ADSL, for example, appears to be limited.

> Can you squeeze ADSL harder? The answer is: yes, you certainly can. We have done some research in the labs on how much further you could take it. There is a complicated set of technical constraints which you have to live within, but there is potential to squeeze a little more out of it with current technology. They are not radical gains, but they are nevertheless potentially

9 Commissioner Ed Willett, Australian Competition and Consumer Commission, *Challenges in Telecommunications Competition and Regulation,* p. 7. *A*t 30 June 2004: http://www.accc.gov.au/content/item.phtml?itemId=518743&nodeId=file40dbc06cdfb57&fn=20040625%20SPAN.pdf

> valuable gains. There is a new generation of technology coming onto the market called ADSL2+, which will give a bit more range and/or speed - there is always a trade-off there - and we have been investigating that. There are ways in which you might optimise the statistics of the infrastructure. This is a somewhat complicated point, but today the spectral sharing rules are done on a sort of common denominator basis and you could envisage that, with some clever modelling, you might be able to do it more efficiently. However, that has regulatory and other implications which would need to be investigated, so it is really a gleam in the eye rather than a fact as we stand. There is potential to squeeze a bit more out of the infrastructure as it stands, but I would hasten to add that we are not talking about orders of magnitude here. We are talking about percentage improvements, which I expect you will see over the next few years.[10]

4.13 In its report on the Australian telecommunications network the Committee discussed the limitations on the ability of the existing Telstra network to provide all Australians with access to ADSL because of its failure to enable all of its exchanges and because of the extensive use of pair gain systems in the network. That report also discussed the possible development of powerline communications systems which might allow broadband to be offered to consumers over the existing electricity distribution system.

4.14 Despite the possibility that the capacity of the existing infrastructure could be used to provide improved broadband access, it is reasonably clear that at some stage in the future existing networks will have to undergo major upgrades or be replaced with new technologies. Mr Malcolm Moore told the Committee:

> The notion that ADSL is a broadband panacea concerns me. It is not; it will not solve the situation. Almost all public submissions that mention ADSL are very critical of it. It must be obvious, even to the most inept people, that ADSL technology can only be seen as a stopgap, short-distance, slow-speed technology. ADSL needs to be phased out - as fast as it was brought in. As, with co-ax, twisted pair starts to age, ADSL is also about to come into the expensive stage, where maintenance costs are very high.[11]

4.15 Some new, high capacity, networks are already being deployed. Examples include the TransACT fibre to the curb network, mentioned above, and both Telstra and Bright Communications have, or are planning to trial, fibre to the home networks.

4.16 It is difficult to predict the future shape of the network in an industry which is characterised by rapid development of both technology and market forces. Evidence

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10 Dr Hugh Bradlow, Chief Technology Officer, Telstra, Environment, Communications, Information Technology and the Arts Reference Committee, Inquiry into the Australian Telecommunications Network, *Committee Hansard*, 6 August 2003, p 844.

11 Mr Malcolm Moore, *Committee Hansard*, Sydney, 13 November, 2004, pp.157 - 158.

received by the Committee suggests that it is likely that a combination of technologies will replace the ubiquitous copper CAN:

> While copper from the exchange was suitable to deliver voice services to all but the most remote parts of Australia, where satellite filled the breach, the demands on the new access network are far greater and will probably require a range of technical solutions. Fortunately, there is a wide and expanding range of technologies available, including wireless, fibre to the premises, and fibre to the curb with short-hop copper tails to fill the so-called last metre.[12]

4.17 Similarly, Personal Broadband told the Committee:

> No single broadband technology will provide all the answers…. In practice, most customers will adopt a complementary set of wireless and wireline broadband services to meet all their broadband and data needs. The market as a whole will benefit from competing technologies. The continued deployment of both fixed and wireless solutions will be needed going forward. However, as the need for mobility increases, wireless services may well start to become the only solution for many customers.[13]

4.18 In the course of the Committee's inquiry into the Australian telecommunications network, Telstra discussed where it thought the future of telecommunications was likely to go. One alternative Telstra outlined was that the existing network could be upgraded to provide very high-speed DSL by replacing parts of the existing CAN with optical fibre. However, it said that that architecture was unlikely to provide a sufficient increase in speed for long enough to justify the cost of its deployment. The more likely alternative is that a passive optical network, which delivered data to the home over an optical fibre, would be deployed.[14]

4.19 Additionally, Telstra outlined its views on the ability of wireless solutions to meet the future demand for bandwidth. While acknowledging the ability of improvements in technology to continue to expand the capability of wireless solutions, Telstra indicated that there are limits to the potential capacity of wireless networks:

> It must be recognised that there are laws of physics that you have to contend with and there are issues around the deployment of radio technology, so achieving wired equivalents is something of a challenge. There are issues like latency, which is the time for the signal to bounce back and forth. If you do not have low latency then you cannot offer services such as voice and IP in that environment. It is a shared medium, so radio technologies work well

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12 Comindico, Submission 31a, pp 3 - 4.

13 Personal Broadband Australia, Submission 11, p.5.

14 Dr Hugh Bradlow, Chief Technology Officer, Telstra, Environment, Communications, Information Technology and the Arts Reference Committee, Inquiry into the Australian Telecommunications Network, Official Committee Hansard, 6 August 2003, pp 836 - 838.

> in an environment where you have low uptake but, as soon as you start to get high levels of uptake, you start to load and stress the system beyond its capability. Spectrum availability is always going to be a limitation because, again, the laws of physics apply. Then there are issues around power limitations. Because of EME considerations, you cannot simply pump radio power into the atmosphere, and that will always limit the amount of capacity that you can put into any given radio system. So let me emphasise that radio systems, while they are very attractive for particular applications, are not a universal panacea as we go forward.[15]

4.20 As discussed in the previous chapter, rolling out a new fixed line network is expensive.[16] For a roll-out to be viable it must be able to capture a large customer base and be able to generate as high a level of revenue per customer as possible. The key to meeting these two objectives is likely to be the ability to offer as wide a range of services, particularly premium pay TV content, as possible to potential customers:

> Generating infrastructure competition in the residential and SME markets is more risky. Telecommunications investment returns in these markets are dependent on generating an effective mass-market strategy and signing up large numbers of users quickly to earn a reasonable return (i.e. reach economies of scale quickly).[17]

4.21 Communications Expert Group argued that:

> The business case and viability of small broadband carriers are dependent on the combined delivery of voice, data and video services to customers. Access to Foxtel (a content provider) services, are essential for the future growth and prosperity of this type of carrier. Current experiences in negotiating access to Foxtel have proved to be lengthy, complex and difficult. Telstra has an advantage in being able to bundle Foxtel with Internet and voice services to the disadvantage of carriers specialising in providing broadband and video access to customer premises.[18]

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15 Dr Hugh Bradlow, Chief Technology Officer, Telstra, Environment, Communications, Information Technology and the Arts Reference Committee, Inquiry into the Australian Telecommunications Network, Official Committee Hansard, 6 August 2003, pp 840.

16 While the Committee did not receive any detailed evidence on the cost of rolling out fixed line networks the cost per home passed can be estimated from the evidence received. In its submission Optus stated that its HFC network had cost over $4 billion to install since 1994 (Optus, Submission 36, p 7) and that the network passes 1.4 million addressable homes (Optus, Submission 36, p 6). On this basis the cost of rolling out the network can be estimated to be over $2800 per home. The cost obviously depends on the type of network being rolled out and the availability of access to existing infrastructure.

17 Optus, Submission 36, p 14.

18 Communications Expert Group Pty Ltd, Submission 30, p 7.

4.22 The ACT Government noted:

> The increasing convergence of broadcasting and telecommunications services requires unfettered access to major content services (eg pay TV and free to air TV) by telecommunications providers. Monopolisation of the content market by one or two major telecommunications providers will limit the opportunity for new and innovative telecommunications providers to acquire, develop and provide attractive new content to their customers.[19]

4.23 Similarly, Mr Paul Budde told the Committee:

> We estimate the margin of Foxtel's resellers to be between 5% and 10%. Resellers in Europe and the USA have margins that are double that, or more. In Australia small operators have no choice other than to go to Foxtel for their key entertainment content – sport and movies.[20]

4.24 The importance of access to premium pay TV content was also recognised by the ACCC:

> Premium pay TV content is critical to the development of pay TV offerings and therefore an inability to access premium pay TV content may act as a barrier to entry to new broadband investment. This may lead to less competition in the supply of broadband and telecommunications services.[21]

4.25 The economic dynamics of rolling out new infrastructure were demonstrated during the roll-out of the Optus and Telstra HFC cable networks. The roll-out of a new network by Optus, which had the potential to challenge Telstra's dominance in the market, was matched by Telstra with the result that two similar networks were rolled out in the same areas of some of Australia's major cities. Both parties competed vigorously to obtain exclusive access to the premium content which would induce customers to sign on to their service. Neither of these networks appears to have been an outstanding commercial success to date.

4.26 Although Optus reports that its HFC network has achieved a penetration rate of nearly 39% of homes,[22] in its submission Optus noted that:

> For Optus, expansion of our consumer broadband offering needs to be considered in the context of the operation of the whole of Optus' Consumer and MultiMedia division (CMM) which provides telephony, Pay TV, dial-up and broadband Internet services, most often acquired on a bundled basis.

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19 ACT Government, Submission 14, p 5.

20 Paul Budde Communications Pty Ltd, Submission 6, p 15.

21 Australian Competition and Consumer Commission, *Emerging Market Structures in the Communications Sector*, June 2003, p xvii.

22 Optus, Submission 36, p 6.

> CMM has struggled financially, and has only just made a profit at the EBITA level, although continues to be loss making in an economic sense.[23]

4.27 Optus went on to observe that it did not appear viable to extend the reach of its HFC network:

> Building-out the HFC cable is not an economically viable option. Other broadband technologies are more economic, particularly DSL. The main options for Optus are to re-sell a Telstra DSL service and/or build our own consumer DSL network.[24]

4.28 One way in which a new entrant can build a customer base which can justify the cost of developing new infrastructure is by reselling wholesale services acquired from another carrier, such as Telstra:

> For Optus, a decision to build a consumer DSL network, relies on it building an effective customer base through customers acquired from other services, such as local, long distance, dial-up Internet and wholesale DSL, that can be migrated to broadband. Optus' efforts in this respect are thwarted by the deliberate dampener that the ACCC seeks to impose on local call resale services (LCS). When Optus' costs are added, the LCS price means that Optus makes a loss on the service. Optus must loss lead the service, for its other services. However LCS pricing acts as an inhibitor to customer growth, which in turn will delay a DSL build decision.[25]

Competition

4.29 As discussed in Chapter 3 the current regulatory regime has failed to deliver strong competition in broadband services outside of the capital city CBDs. The most common technology for accessing broadband in Australia is ADSL which is provided almost exclusively over Telstra's fixed line network. Although resellers of ADSL have a significant share of the market, they are reselling a wholesale service provided by Telstra which still controls over half of the retail market. Telstra is also one of the only two carriers with extensive cable networks able to offer high speed access to the Internet.

4.30 The limited nature of competition in Australia has often been attributed to structural issues. In submissions to the Committee the current structure of the industry was raised as a significant factor influencing the level of competition. For example:

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23 Optus, Submission 36, p 3.

24 ibid.

25 ibid, p 4.

> Structural issues, in particular the internationally unparalleled vertical and horizontal integration of Telstra, is at the root of the problem of inadequate competition.[26]

4.31 Similarly, cBallarat told the Committee:

> By providing the infrastructure, wholesale and retail services, as well as obtaining strategic partners in various types of products and services, Telstra has an overwhelming advantage which inhibits competition and allows the company to set the agenda in available broadband technologies.[27]

4.32 The level of competition in the broadband market reflects Telstra's dominance in telecommunications generally. In its report *Emerging Market Structures in the Communications Sector* the ACCC said that:

> The Commission's analysis indicates that the progress of competition in telecommunications markets is slowing. To date, the type of benefits that have arisen from the introduction of competition in telecommunications markets have largely flowed from competition at the retail level of the market as opposed to competition between telecommunications infrastructure providers (the wholesale level of the market).
>
> The incumbent, Telstra, remains a dominant firm in telecommunications. It is one of the most integrated communications companies in the world, continuing to be the major wholesale and retail supplier of telecommunications services, including:
>
> - local, national, long-distance, international and mobile telephony
> - dial-up and broadband Internet
> - data
> - printed and on-line directories
> - pay TV (through its 50 per cent ownership interest in Foxtel).[28]
>
> The extent of Telstra's dominance of the sector is demonstrated by the fact it receives almost 60 per cent of total industry revenue, which is almost four

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26 Comindico, Submission 31, p 2.

27 cBallarat Ltd, Submission 49,

28 Australian Competition and Consumer Commission, *Emerging Market Structures in the Communications Sector*, June 2003, p xv.

> times the revenue that its closest rival, Optus, receives. It is reported to receive over 90 per cent of total industry profits.[29]

4.33 Overseas markets are generally characterised by higher levels of competition due primarily to infrastructure-based competition between telecommunications companies offering ADSL and well-established cable companies offering access by cable modem. In its submission Optus stated that infrastructure competition was an important driver of broadband take-up:

> Infrastructure competition also generates results for consumers. In areas where Optus competes with Telstra using its own Optus HFC network, household penetration is at 18%. This compares with the 4% penetration where Optus does not have competing infrastructure.[30]

4.34 In Australia Telstra not only has an effective monopoly on the fixed line network over which ADSL is offered, it also owns one of the two major, duplicated, cable networks and dominates the mobile phone market which may develop into an alternative platform for broadband.

4.35 Telstra enjoys further competitive advantages because of the size of its customer base, its ability to sustain short term losses, its ability to bundle multiple services and its access to content. Telstra currently holds a 50% interest in Foxtel which effectively controls access to premium pay TV content in Australia. Despite lengthy negotiations, this content is still not available over either the TransACT or Neighborhood Cable networks. While these networks have been able to remain viable without being able to offer this content to their customers, the absence of this content inevitably makes it more difficult for them to attract customers and to generate revenue from their customers.

4.36 Telstra, because of its size, also has the ability to match any new infrastructure by potential competitors and undermine the viability of their roll-out. Neither TransAct nor Neighborhood Cable networks has had to face direct competition from Telstra rolling out similar new networks in competition with their own. The Optus HFC roll-out, however, was matched by Telstra:

> An example of the ability of an incumbent to limit a new provider's entrance to a market is what happened with Optus' HFC cable rollout. Optus decided to make a very large investment in a combined pay TV and telephony network in the mid 1990s (which was later engineered for broadband use). This was the first challenge to Telstra's telephone network, as it enabled Optus to compete head on with Telstra in the local access telephony market.

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29 Australian Competition and Consumer Commission, *Emerging Market Structures in the Communications Sector*, June 2003, p xv.

30 Optus, Submission 36, p 13.

> In response, Telstra decided to protect its telephony revenues by duplicating Optus' cable build by rolling out a pay TV network as well. Telstra's network is installed in largely the same suburbs and streets in Sydney, Brisbane, and Melbourne as the Optus network.
>
> Telstra has a motivation to limit infrastructure competition, particularly where competing networks are challenging its traditional (monopoly) markets. Infrastructure investment is high cost and high risk. This is particularly the case in the residential and SME market. A bold move, such as that taken by Optus with its HFC network, means large amounts can be spent and take a long time to earn a return. When faced with a strong and powerful incumbent, these risks are even higher.[31]

4.37 The views of Optus were echoed by Comindico which argued:

> The combination of imbedded structural problems and their near term anti-competitive effects has the fundamental impact of deterring investment in new infrastructure investment, while creating no imperative or incentive for Telstra to reinvest in the network. The longer-term implication is that Australia will end up being a DSL island in a truly broadband world.[32]
>
> Investment by new entrants has significance beyond the quantum of money invested. Incumbents are driven to respond to the competitive threat of new entrants deploying new technologies that threaten established revenue streams. Without such a threat, incumbents tend to delay deploying new technologies for as long as possible to extract the maximum rents from their sunk investments. Comindico contends that the slow take-up of broadband in Australia relative to the rest of the world - as evidenced by the fall Australia has experienced on the OECD broadband ranking tables for example - demonstrates that exactly this phenomenon has been occurring in Australia.[33]

4.38 In contrast, Telstra contends that the broadband market is competitive and that there is no need for further regulatory intervention:

> Telstra submits that technology convergence is not a threat to competition in broadband markets, and:
>
> a) there is no evidence to suggest that divestiture of either Telstra's HFC cable network or its share in FOXTEL would lead to an increase in broadband penetration in Australia;
>
> b) the level of competition in Australian broadband markets suggests a market that is functioning effectively, and certainly does not indicate a level

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31 Optus, Submission 36, p 14.

32 Comindico, Submission 31, p 3.

33 ibid, p 5.

> of market failure that would justify such heavy-handed regulatory intervention;
>
> c) regulatory solutions such as those suggested by the ACCC in its Emerging markets in the communications sector report (ACCC Report) would not achieve the effects anticipated by the ACCC, nor lead to increased broadband subscriptions in Australia; and
>
> d) there has been extremely strong investment by Telstra in copper-based broadband technology (ADSL), of more than $1 billion to date. This infrastructure is available to all ADSL providers.[34]

4.39 Telstra's advantages in the broadband market are important for the future of competition because they will impact on the ability of other carriers to build infrastructure platforms and remain viable in the face of competition from Telstra. In Australia it may not be viable for multiple high capacity networks to be built and operated in competition with each other. Given Telstra's existing competitive advantages, it is likely to be Telstra which will own the single network and continue to dominate Australia's telecommunications industry in the foreseeable future.

Developing a competitive industry

4.40 The current regulatory regime, while encouraging the development of competition has, as discussed in Chapter 3, had limited success. There is strong competition for the provision of broadband services in the CBD's of Australian capital cities but, beyond this, strong competition has not developed. It is not surprising therefore, that the evidence presented to the Committee frequently expressed concern about this situation with, for example, Primus arguing:

> The regulatory regime introduced in 1997 to facilitate and promote full and open competition in telecommunications has clearly failed.[35]

4.41 In its submission Comindico said that Telstra's market dominance is a function of three factors:

> (i) Telstra is the largest service provider in each of the markets of fixed voice services, mobile communications, data services, the Internet, directories, and pay television and is the de facto monopoly supplier in most regional markets.
>
> (ii) Telstra controls the basic network infrastructure on which other service providers rely.

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34 Telstra, Submission 21, pp 28 – 29.

35 Primus Telecom, Submission 32, p 2.

> (iii) Telstra's vertical integration as a "full services" operator that enables it to bundle service offerings and to leverage market strengths from one product market to another.[36]

4.42 The Committee was told that the current regulatory regime had failed because it seeks to promote competition through mechanisms which are inherently weak and which cannot address the underlying problem. Primus argued that:

> The current regulatory regime has been ineffective in promoting a rigorous competitive telecommunications market primarily because it does not, and cannot deal with Telstra's considerable market power deriving largely from its strong level of vertical and horizontal integration.
>
> The Government's legislative amendments passed in December last year whilst a step in the right direction, do not however address these underlying structural issues.[37]

4.43 In the Committee's view the current regulatory regime is not vigorous enough to ensure that strong, sustainable competition develops in the broadband industry. While it could be argued that other carriers giving evidence to the Committee have a vested interest in weakening Telstra's market position, the same concerns have been raised by the regulator and by broadband users. The validity of those comments is supported by Telstra's ongoing dominance of both the broadband market and the wider telecommunications industry. In the Committee's view, the Government must take immediate action to create a more competitive broadband industry.

The access regime

4.44 The existing access regime has not led to the development of a competitive broadband market. Resellers of ADSL have made significant inroads into Telstra's customer base but to date this has not led to the development of infrastructure-based competition. However, the ability of its competitors to obtain access to wholesale services from Telstra places some competitive pressure on Telstra and enables competitors to build a customer base which may facilitate the later development of infrastructure-based competition. For these reasons the Committee supports the retention and strengthening of the existing access regime.

Divestiture of Telstra's HFC network and Foxtel stake

4.45 The Committee heard that the level of competition in the broadband industry would be enhanced if the Government required Telstra to divest its ownership of its HFC network and its stake in Foxtel. Mr Paul Budde argued:

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36 Comindico, Submission 31, p 10.

37 Primus Telecom, Submission 32, p. 5.

> Telstra's ownership of both the telephone and the HFC network is the single most important reason that we have such low broadband uptake in Australia.[38]
>
> For the common good it would make sense to divest Telstra's share in Foxtel and, ideally, to combine the two cable TV networks (this would mean a significant reduction in the total networks as most of it is duplication) and use the combined network as a platform to develop facilities-based competition.[39]

4.46 In its report on Emerging Market Structures the ACCC explored the option of requiring divestiture and outlined the expected benefits:

> For so long as Telstra owns or has an interest in a copper network and an HFC network, Telstra will be concerned about maximising the combined revenues of both networks, and will therefore be hesitant to introduce new services or pricing on one network which cannibalises its revenues on the other.
>
> Divestiture of the HFC network by Telstra would address this problem by introducing a new infrastructure competitor into the market against Optus and Telstra, establishing conditions for increased rivalry and innovation in the supply of a full range of telecommunications services. This competitor would have the potential to supply voice, broadband Internet and pay TV services directly to 2.5 million households passed by the HFC.
>
> Increased competition would also provide better incentives for Telstra to invest actively in its copper network to provide for the delivery of a range of advanced broadband services. Overseas experience and independent analysis (including by the OECD) strongly suggest that the enhanced competition between independent networks should improve broadband price and service offerings and thereby increase the take-up of broadband services.[40]

4.47 The ACCC went on to observe that the divestiture of the HFC network by Telstra required further analysis particularly in relation to the costs of divestiture.[41] The ACCC also examined the case for requiring Telstra to divest its interest in Foxtel and its influence over the behaviour of Foxtel:

> An example of the effect of Telstra's commercial interest in Foxtel is that Telstra was only prepared to allow supply of pay TV content to one of its

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38 Paul Budde Communications Pty Ltd, Submission 6, p 1.

39 ibid, p 3.

40 Australian Competition and Consumer Commission, *Emerging Market Structures in the Communications Sector,* June 2003, p xvi - xvii.

41 ibid.

> telecommunications competitors (Optus) if Telstra was also able to bundle Foxtel's pay TV service. This is even though Foxtel had identified the content supply arrangements with Optus to be in Foxtel's commercial interests.[42]

4.48 Having examined the issues relating to Telstra's ownership of its HFC network and its interest in Foxtel the ACCC said that:

> Whilst increasing transparency, the Commission has grave reservations that access arrangements and enhanced accounting separation and related provisions are sufficient of themselves to address ongoing competition concerns in the Australian telecommunications market. Therefore it believes that the government should consider introducing ownership restrictions.[43]

4.49 The ACCC went on to recommend the divestiture of Telstra's interest in these two businesses:

> The Commission recommends that the government introduce legislation requiring Telstra to:
>
> - divest the HFC network in full, and
> - divest its 50 per cent shareholding in Foxtel.
>
> Unless it can be shown that the costs of such divestiture outweigh the benefits flowing from the increased competition that divestiture would promote.[44]

4.50 The ACCC's recommendation was supported by the Queensland Government which argued:

> The Commonwealth needs to do more to encourage competition in the market for broadband services. In particular, the advice of the Australian Competition and Consumer Commission (ACCC) that Telstra should be required to divest itself of its cable network and its shareholding in Foxtel should be accepted.[45]

Access to premium content

4.51 The existing access regime requires controllers of key infrastructure and services to give competitors access to that infrastructure. However, successfully competing in a

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42 Australian Competition and Consumer Commission, *Emerging Market Structures in the Communications Sector*, June 2003, p xvi - xviii.

43 ibid, p 57.

44 ibid, p xx.

45 Queensland Government, Submission 39, p 11.

convergent telecommunications market also requires access to the content that consumers are seeking to access through the network. To date the importance of access to premium content to the development of competing networks has been largely overlooked by the regulatory regime.

4.52 The Committee considered above the possibility of requiring Telstra to divest its interest in Foxtel as a means of opening up access to the premium content controlled by that company. While this may help to address the immediate problem relating to access to content, the new owner of Telstra's current stake may be no more amenable to allowing widespread access to the content Foxtel controls. Nor would this step address problems which might arise in the future as a result of the emergence of monopolies over other types of key content. The Committee considers that the only way to address this issue in the long term is to develop an access regime for content.

4.53 This is consistent with the findings of the ACCC in its *Emerging Market Structures in the Telecommunications Sector Report*. The ACCC said that:

> The Commission recommends that the government introduce legislation to increase access to pay TV content for broadband networks.[46]

4.54 The issue of access to premium content was raised in evidence with the Committee. Mr Bruce Barclay from Silver Communities Pty Ltd argued:

> I would like to add my voice to those of others that are concerned about the state of play in the PayTV content area. Content is critically important to the user experience of broadband and therefore it is an important element that must be considered in reviewing the issues surrounding deployment and take-up….
>
> Foxtel has unquestionably a monopoly in this market and it is greatly concerning that they are doing deals that favour some service providers and not others. Governments must take action to ensure equitable access to this content, if the smaller niche players (who are so critical to deployment) are to survive.
>
> If niche players are unable to access this content on a commercially competitive basis, then the potential for the major players to squeeze them out of the market on the basis of content is very high. This will substantially slow the deployment of the high-quality, high-speed platforms that Australia requires to be competitive and thereby slow meaningful economic and social outcomes.[47]

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46 Australian Competition and Consumer Commission, *Emerging Market Structures in the Communications Sector*, June 2003, p xx.

47 Silver Communities Pty Ltd, Submission 45, p. 8.

Infrastructure competition and structural separation

4.55 Despite the fact that the Australian telecommunications industry was opened to full competition in 1997 Telstra has continued to dominate the industry and appears likely to do so for the foreseeable future. Telstra's dominance of telecommunications infrastructure and the other competitive advantages which it enjoys must bring into question the likelihood of Australia ever developing effective and sustainable competition based on competing infrastructure platforms owned by different carriers. The ACCC raised this possibility in its Emerging Markets Report:

> A particular concern is that the relationships between the markets will mean that the major firms in the existing markets will be able to leverage market power into emerging markets and for the delivery of new services. That is, the Commission is concerned that Telstra and Foxtel, in particular, will be able to protect or even reinforce existing market power, by utilising the advantage currently gained from their market power. The prospect of greater competition through new entry or between incumbents as a result of innovation will be lost – the status quo will remain.[48]

4.56 It is possible that development in telecommunications technology and changes in the marketplace will result in the development of a strongly competitive market for broadband in Australia as a whole. However, if that does not occur in the near future then serious consideration needs to be given to the structural separation of Telstra. Dividing Telstra into separate retail and wholesale businesses would remove the existing conflict of interest in which Telstra acts as both a supplier of a wholesale product to other retailers, and as a retailer competing for market share in a market in which it has a virtual monopoly.

4.57 Structural separation was supported in some of the submissions received by the Committee.[49] However, in its report on Emerging Market Structures the ACCC suggested that:

> Divestiture of the HFC network by Telstra may reduce the need for more interventionist approaches aimed at improving the competitive environment, such as the separation of Telstra's wholesale and retail businesses or separations of the local loop from the rest of Telstra's business.[50]

4.58 A number of arguments against structural separation have been put forward. Most of these relate to the potential legal and technical difficulties of splitting Telstra into two separate companies. Telstra is now a public company listed on the ASX.

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48 Australian Competition and Consumer Commission, *Emerging Market Structures in the Communications Sector*, June 2003, p 18.

49 See, for example: Comindico, Submission 31, p 18;

50 Australian Competition and Consumer Commission, *Emerging Market Structures in the Communications Sector*, June 2003, p xvi – xvii.

Almost half of its shares are in the hands of 1.7 million private shareholders based both in Australia and overseas.[51] If shareholders believed that the value of their investment would be reduced by separating the company they may seek to block any separation on legal grounds.

4.59 Some submissions to the Committee have argued that the impact of structural separation would not, or not necessarily, be negative.[52] ACIL Tasman provided the Committee with a detailed study which looked at the effects on shareholder value of vertical separation. The study examined the restructuring of British Telecom, British Gas and AGL and found that in each case shareholder value did not suffer and that the sharemarket supported those restructurings. The ACIL Tasman study concluded that:

> The examples examined all show that structural separation can enhance shareholder value. Although there is an element of 'noise' in each case as a result of a wide range of other events, it is clear that in each case the benefits of separation outweighed the disadvantages, and shareholder value was higher than it would otherwise have been. Thus the study shows that vertical separation does not necessarily detract from shareholder value, and indeed can increase value.[53]

Divestiture powers for the ACCC

4.60 It has been suggested that the structural issues in the telecommunications industry could be addressed if the ACCC were given the power to apply to the Federal Court for an order that a telecommunications company divest itself of certain assets or businesses:

> Comindico has for some time argued for the addition to the Trade Practice Act in relation to telecommunications of a compulsory divestiture power as a compromise course of action. This would provide a structural remedy that would not require immediate debate and resolution of the form of structural action.
>
> This remedy would involve providing the ACCC with an additional power to apply to the Federal Court for an order that a telecommunications company divest itself of certain assets or businesses because the continued ownership of those assets or businesses was harmful to competition. Such a power would arguably have a further advantage over pre-emptive structural separation in that it would tend to concentrate structural reform on those areas where there was demonstrable anti-competitive activity.[54]

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51 Telstra, *Half-year Report 2004*, p 16.

52 See, for example: Comindico, Submission 31, p 18; ACIL Tasman, Submission 7a

53 ACIL Tasman, Submission 7a, p 29.

54 Comindico, Submission 31, p 19.

4.61 The Senate Economics References Committee, which investigated the effectiveness of the *Trade Practices Act 1974* in protecting small business, found that greater divestiture powers were widely available to regulatory authorities in Europe and the USA and although these powers are rarely used, the threat of divestiture forms the heart of US antitrust law. This provides a legal remedy which is considered highly undesirable by large companies. Additionally, international experience suggests that, where the threat of divestiture fails, the implementation of divestiture provisions can be effective. The United States Federal Trade Commission's 1999 study of the divestiture process found that about three quarters of divestitures appear to have created viable competitors in the relevant market.[55]

4.62 The Economics Committee wrote:

> Australian trade practices law currently lacks the access to divestiture powers enjoyed by overseas jurisdictions; as a result, our competition authorities are limited in their ability to use divestiture either as a threat or as a remedy. Section 81 of the Trade Practices Act 1974 does allow the court to order divestiture, but only in the case of an offence against Section 50 (Prohibition of acquisitions that would result in a substantial lessening of competition). The Committee considers that the application of s.81 should be expanded, so that divestiture becomes a remedy for other breaches of the Act, including section 46 (Misuse of market power) and any new section introduced in line with the majority report's recommendation 12 (relating to the regulation of creeping acquisitions).[56]

4.63 The Economics Committee went on to argue that the extension of divestiture powers to section 46 was an entirely reasonable response to a corporation with substantial market power and who was found to be abusing that power. Such an approach, it was argued, could increase competition within the market by creating additional competitors. But, more likely, the existence of divestiture powers would act as a deterrent and cause companies to be more careful in their compliance with the section. The Committee noted a submission from the National Association of Retail Grocers of Australia who supported enhanced divestiture powers to section 46:

> The Courts should also have the power to order divestiture for repeated and intentional breaches of s46. Divestiture as a remedy should be available in instances where a large and powerful corporation is repeatedly engaging in abuses of market power as the corporation's obvious contempt for existing penalties means that a more potent remedy is needed.[57]

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55 The Senate Economic References Committee, *Report into the effectiveness of the Trade Practices Act 1974 in protecting small business,* 2004.

56 ibid, p. 65.

57 ibid, p. 66.

4.64 The Economics Committee noted that the ACCC, in both its submission to the Review of the Competition Provisions of the Trade Practices Act ('the Dawson Report') into the 'misuse of market power' provisions in section 46 of the Act and in its submission to a 2002 Senate Legal and Constitutional Committee inquiry into the Trade Practices Act, also favoured extension of divestiture powers to section 46:

> The ACCC does not support an open-ended divestiture remedy, but reiterates its previous position of support for a limited extension of the existing power by providing the Court with the option to order divestiture where there is a contravention of section 46 of the Trade Practices Act, noting it is unlikely that the power would often be invoked.[58]

4.65 This Committee endorses the recommendation of the Senate Economics References Committee that section 81(1) of the Act be amended so that section 81 can be applied where a corporation is found to have contravened sections 46 or 46A, or any new section introduced to regulate creeping acquisitions.[59]

4.66 Clearly, the current dominance of Telstra in the telecommunication markets is an impediment to broadband competition. The Committee has heard evidence on a number of strategies, outlined above, which aim to address this market dominance. The Committee acknowledges the issues involved are complex but believe that the Government must act to change the status quo and concurs with Mr Ian Slattery from Primus who argued:

> To dismiss these structural and legislative remedies out of hand without proper investigation, debate and analysis could have long-term irreversible consequences for the telecommunications industry.
>
> Primus contends that telecommunications competition is at a cross road and that this Committee has the opportunity to initiate a much needed overhaul of the regulatory regime by instigating a full review of structural arrangements in the Australian telecommunications industry.[60]

Recommendations

4.67 The Committee's recent report on the Australian telecommunications network examined the ability of the network to give all Australians affordable access to high speed data services. That report made a range of recommendations about improving access to broadband, which the Committee commends to the Government. The recommendations that follow are complementary to those made in that report, aimed as they are at enhancing broadband competition.

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58 The Senate Economic References Committee, Report into the effectiveness of the Trade Practices Act 1974 in protecting small business, 2004, p. 66.

59 ibid.

60 Primus, *Submission 32,* p. 7.

A national target

4.68 The Committee believes that Telstra's continued investment in ADSL technology is an interim solution. Optic fibre to the home in combination with wireless technology should be the long-term vision for telecommunications in Australia. To promote this vision the Commonwealth Government should show leadership and encourage the strategic deployment of optic fibre technology.

Recommendation 1

4.69 The Government should set, in consultation with industry, a ten-year national target for an optic fibre consumer access network roll-out and should invest the necessary regulatory and compliance powers with the Australian Communications Authority to ensure that this target is met.

Recommendation 2

4.70 The Committee recommends that the Government's accepted definitions of ADSL and broadband speeds reflect international best practice standards and should not be determined or overly influenced by product definitions of speed offered by Telstra and other carriers. The Government should review these definitions every twelve months to ensure that speeds remain contemporary.

Structural separation

4.71 Australia has not developed a strongly competitive broadband industry under the current regulatory regime. Some sectors of the market, such as the capital city CBD's and some geographic areas such as Canberra and parts of regional Victoria, are characterised by strong competition based on competing infrastructure. The Optus HFC cable provides competition in those parts of Sydney, Melbourne and Brisbane served by that network but the Optus cable has never been profitable in an economic sense and Optus has indicated that it is unlikely to extend the network to other areas.

4.72 Competition is also provided by the resellers of Telstra's wholesale ADSL services. These resellers have been able to establish a strong presence in the market. However, Telstra remains the largest retailer of ADSL services and the ability of its competitors to remain competitive will largely depend on their ability to access Telstra's wholesale offerings at reasonable prices. The recent events surrounding Telstra's announcement of significant price reductions for its retail ADSL offering emphasise the reliance of the resellers on strong, prompt action by the regulator for their continued competitiveness.

4.73 Prospective levels of competition in broadband services do not appear likely to be any stronger than at present. In its *Emerging Markets Structure in the Communications Sector* report the ACCC observed that the progress of competition in telecommunications markets is slowing. The evidence received by the Committee pointed to a number of competitive advantages enjoyed by Telstra. These included:

- Telstra's existing dominance of the telecommunications industry;
- Telstra's ownership of the copper CAN;
- Telstra's ownership of the largest network which could provide a potential source of competition with its copper CAN, its HFC network;
- Telstra's control of premium pay TV content through its 50% interest in Foxtel;
- Telstra's unrivalled ability to offer bundled services; and
- Telstra's control of the backbone network which many competing broadband networks would have to use for backhaul.

4.74 These competitive advantages are augmented when Government programs introduced for social reasons, such as HiBIS, simply act to entrench Telstra's economic dominant position.

4.75 The future shape of the telecommunications network is unclear but, as a result of convergence and the high cost of new infrastructure, it seems likely to be dominated by a limited number of fixed line and wireless infrastructure platforms which are capable of supporting multiple services. For the reasons outlined above Telstra is highly likely to be the owner of one or more of those infrastructure platforms. Telstra's competitors who are contemplating building rival infrastructure will have to consider the competitive advantages enjoyed by Telstra, and the possibility that any rival infrastructure roll-out will face strong competition from existing or new infrastructure owned by Telstra. Further, the demise of private platform providers in competition with Telstra, such as IP1, increases the caution in potential competitors' business cases.

4.76 The Committee notes that the current Federal Government has undertaken a number of inquiries to examine the current and future telecommunication markets and competition regulation in the industry. It is curious that the issue of the structural separation of Telstra was left out of the terms of reference and not examined by any of these inquiries. The Government requested the House of Representatives Standing Committee on Communications, Information Technology and the Arts to conduct an inquiry into the structural separation of Telstra, and then effectively terminated it. In view of the evidence received by this inquiry regarding Telstra's market dominance and vertical integration, this refusal to examine all possible options relating to industry structure, including structural separation, is inexplicable.

Recommendation 3

4.77 The Committee recommends that the Productivity Commission be tasked to undertake a full examination of all the options for structural reform in Australian telecommunications, including but not restricted to, the structural separation of Telstra.

Divestiture of Telstra's interest in Foxtel

4.78 Notwithstanding the above recommendations, the Committee considers that only a significant change in the structure of the industry will ensure the development of a strongly competitive broadband industry. The Committee supports the recommendation of the ACCC that Telstra be required to divest itself of its interest in Foxtel.

Recommendation 4

4.79 The Committee recommends that Telstra be required to divest its shareholding in Foxtel.

Recommendation 5

4.80 The Government should direct the Australian Competition and Consumer Commission to provide further advice on its recommendations in its report *Emerging Market Structures in the Communications Sector* on the feasibility of introducing a content access regime.

Recommendation 6

4.81 The Government should direct the Australian Competition and Consumer Commission to provide further advice on its recommendations in its report *Emerging Market Structures in the Communication Sector* that Telstra be required to divest itself of its HFC network.

Regulatory regime

4.82 It is clear to the Committee that the current regulatory regime is not of itself capable of producing a more competitive broadband industry in the face of Telstra's existing dominance. Faster and better targeted application of, or further refinement of, the existing access regime and competition legislation may improve the position of Telstra's rivals. In particular the ACCC should examine both the effectiveness of Part A and Part B competition notices against Telstra who appear undeterred by this regulatory mechanism. Additionally, the ACCC should investigate how the issue of a consultation notice delays the regulatory process and gives Telstra a significant 'first mover advantage'.

4.83 The ACCC should give consideration to access to backhaul for new entrants who are considering investing in broadband infrastructure and the ability of Telstra to use its control over the infrastructure over which ADSL is delivered to steal a march on its rivals when new services or price reductions are introduced.

Recommendation 7

4.84 The Government should review section 151AKA(10) of the *Trade Practices Act 1974* to determine whether, under some circumstances, it may prevent the Australian Competition and Consumer Commission from acting swiftly to address anti-competitive conduct. Consideration should be given to the necessity and the effectiveness of issuing consultation and competition notices in addressing anti-competitive conduct.

Recommendation 8

4.85 The Australian Competition and Consumer Commission should examine and report on the anti-competitive effects of the current peering arrangements which allow the exchange of traffic between Tier 1 providers on a settlement-free basis and which creates cost disadvantages for smaller ISPs.

Recommendation 9

4.86 The Australian Competition and Consumer Commission should examine the availability of access to, and cost of, backhaul services for carriers building or proposing to build new broadband infrastructure. Consideration should also be given to the high costs of backhaul services in regional and remote areas in light of the fact that distance based charging is not a characteristic of the Internet.

Information

4.87 The Committee heard evidence that Telstra was charging other carriers and ISPs a fee of between four and five digits for geospatial dataset information. The Committee understands that Telstra has the following datasets:

- Exchange boundary dataset
- Exchange coordinates list
- RIM polygon mapping photo tab file
- Distribution areas mapping photo tab file

Information asymmetry is a barrier to broadband competition as without appropriate geospatial information, the telecommunications industry is unable to plan, analysis and invest in broadband infrastructure.

Recommendation 10

4.88 The Committee recommends that the Australian Communications Authority be provided with all of Telstra's current geospatial datasets, and that the Australian Communications Authority make available these datasets on request, in a useable format, to other carriers and ISPs.

Conclusion

4.89 The Committee believes that Australia's broadband market is at a critical point in its development. Investment in infrastructure deployment has slowed and in the current regulatory - and Telstra dominated – environment, has lost momentum. The Committee acknowledges that the issues are complex and that there is no single solution to the impediments to broadband competition identified in this report. However, the evidence to this inquiry has confirmed the need for the Government to address the regulatory and competitive environment as a matter of priority. In summary, the Committee wishes to concur with the sentiments expressed in a submission to this inquiry:

> The central problem to be resolved is not a technological problem, such as how do we extend ADSL so that it is available to more people on the existing infrastructure. It is an investment problem: how do we find a way to pay for a replacement for the copper network.
>
> The existing network is obsolete because it has ceased to meet the requirements to deliver the basic level of services required to meet the social and economic needs of the Australian community. This is an ubiquitous need, not one that is relative to the distance from the nearest triple 0 postcode….
>
> At the very heart of this failure of competition is the unresolved problem of the structural integration of Telstra. While it owns access to customers, and the services that are delivered over that infrastructure, and the alternative cable delivery mode, and a large slice of the content, and a portion of the dominant Pay TV company, and is even sitting on spectrum that could be used for wireless CAN deployment in much of regional Australia, there is insufficient competitive tension to support new CAN investment….
>
> The length of time it takes for policy makers to realise that the CAN crisis must be confronted, and that the vertical integration of Telstra is the central problem preventing this from happening, will determine whether a reinvigorated approach to driving competition into the communications markets commences next year, the year after or three or more years from now.[61]

61 Comindico, *Submission 31a*, pp.2-5.

Government Members' Dissenting Report

Purpose of the inquiry

From the outset, the value of an inquiry into competition in broadband services was questionable. The Senate recognised this when rejecting a similar reference on 24 June 2003. The current reference was adopted two days later with a majority of just one vote. We are left to surmise what occurred in the interim to persuade some of the independent senators to change their votes.

Of the resulting inquiry, the then Minister for Communications, Information Technology and the Arts, Senator the Hon Richard Alston said:

> Today's decision to support a Senate inquiry that 100% duplicates the terms of reference of an existing, already twice-extended Senate inquiry demonstrates just how totally out of touch with reality the Labor Party has become… This latest inquiry is a gross waste of time and money and Australian taxpayers have every right to be appalled that the Senate, which obstructs every important reform that the Government brings forward, is spending its time on such a pointless exercise.[1]

Even a cursory reading of the majority report would show Senator Alston's comments had proven to be remarkably prescient. The inquiry provided nothing more than a platform for yet another attempt by the Labor Opposition to turn the clock back to a time characterised by excessive government control over a distorted telecommunications market – while ignoring the evidence of significant community benefits that have flowed from competition in related infrastructure services introduced under the 1995 National Competition Policy reform package. Ironically, that reform was carried through by an ALP Federal Government, with the support of the Coalition then in Opposition and the State Governments.

Interestingly, these repetitious and trenchant inquisitions into Telstra beg the question – at least for those who remember the quality of service provided by the 100 per cent government-owned entity – if it is still poorly managed as a part-privatised company, surely privatisation is the logical answer, rather than the problem.

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1 Senator the Hon Richard Alston, *Labor misuse of the Senate reaches a new low,* media release 104/3, 26 June 2003.

As the Senate's Environment, Communications, Information Technology and the Arts Legislation Committee noted in its report on the provisions of the Telstra (Transition to Full Private Ownership) Bill 2003:

> Despite suggestions that there is an obvious and necessary nexus between ownership and service quality, the Committee could find no evidence that full privatisation of Telstra would impede the Government's ability to regulate the level of services provided by Telstra.[2]

What this inquiry has shown, clearly, is that the current non-government parties are reliant – with only lightly concealed cynicism – on the expectation that telecommunications services have been sufficiently good for sufficiently long that Australians may have forgotten how bad services were in the days of the Postmaster-General's Department and (the corporatised but not privatised) Telecom Australia.

Once stripped of its anti-Telstra ideological propaganda, the majority report actually proves that the Government in fact has in place appropriate regulatory and budgetary settings to ensure that all Australians will have equitable access to broadband services – as these services evolve. The technology is relatively new, and the challenges are – admittedly – huge in the short term, especially in the more remote areas of Australia, but every day sees a new development which justifies the Government's faith in its approach.

Competition in broadband services

Government Senators observe that there is a strange and illogical reluctance in the majority report to acknowledge the fact that Australian consumers have benefited from changes to Telstra and telecommunications since the introduction of open competition in the telecommunications market in 1997. Significantly, the Government introduced the *Telecommunications Competition Act* in 2002. The Act implemented the Government's response to the Productivity Commission's Inquiry Report on Telecommunications Competition Regulation and introduced a range of measures to enhance the level of competition and improve the investment climate in the telecommunications sector.

2 Senate Environment, Communications, Information Technology and the Arts Legislation Committee, Report on the provisions of the Telstra (Transition to Full Private Ownership) Bill 2003, October 2003, p. 35.

The process of moving from a government-owned and operated monopoly to an open competitive telecommunications market is not achieved overnight. However, the Government has been driving this process of change, which has had major benefits for Australian telecommunications users, by developing an effective regulatory regime. The Productivity Commission's Inquiry Report on Telecommunications Competition Regulation recognised that the underlying regulatory philosophy of the current telecommunications competition regime is appropriate, and that since the introduction of open competition in telecommunications the Government has made a number of amendments to the regime to ensure that it continues to operate effectively.[3]

In April this year the Government again asked the Productivity Commission to review national competition policy arrangements.[4]

As with telecommunications generally, the Government's policy on competition in broadband services has been to:

> Make sure that people are able to get what they want and that there is maximum competition in there. That drives prices down and gets quality of services up….Maximum choice is what it is all about. At the end of the day the consumer will decide…. We think the market is the best place to decide the level of take-up, and it is pretty much sorting the players out right now.[5]

Mr Colin Lyons from the Department of Communications, Information Technology and the Arts told the Committee that sustainable broadband competition was reliant upon a regulatory policy which did not distort the market:

> I think the general policy of the government is to make sure there are the right regulatory settings to allow sustainable broadband competition rather than to distort the market. So the general philosophy, I think, is to have sustainable competition and make sure that the ACCC has a range of very strong regulatory powers—which it has—to intervene if there is anti-competitive conduct.[6]

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3 Senator the Hon Ian Campbell, *Senate Hansard*, 14 November 2002, p.6329.

4 Productivity Commission, *Review of National Competition Policy Arrangements,* Circular 27 April 2004.

5 Senator the Hon Richard Alston, Question on Notice, *Senate Hansard*, 16 June 203, p.11378.

6 Mr Colin Lyons, Department of Communications, Information Technology and the Arts, *Committee Hansard*, Canberra, 10 March 2004, p.33.

The Government members of this Committee have taken the opportunity during the course of this inquiry to carefully observe market competition in broadband services. We do not agree with claims that due to Telstra's incumbency, competition in this sector is limited. Australia has seen dramatic reductions in the cost of broadband services over the past six months. Broadband is now available for as little as $19.95 per month,[7] and a wide range of ISPs now offer a suite of services and prices allowing consumers a range of choices. The reduction in cost has seen a corresponding increase in the number of people connecting to, or switching from dial-up to, broadband services. Telstra claimed:

> Telstra's target to connect one million Australians to broadband will be reached six months sooner than expected, with recent discounts sparking a dramatic increase in demand.
>
> "Telstra has signed its 750,000th broadband customer this week, following a 46 per cent surge in demand in just five months," Mr Bruce Akhurst, Group Managing Director, Telstra Wholesale, Broadband & Media, said today.
>
> "Telstra will beat its target of one million broadband customers by the end of next year. We are now on track to achieve that six months early, by the end of June 2005," he said.
>
> "By dropping broadband prices, Telstra set off an avalanche of customer demand. We have been setting and then breaking records ever since".[8]

Similarly Optus reported that:

> OptusNet broadband customer base had expanded to 185,000 - marking a 36,000 increase in subscriber numbers since 31 March 2004. OptusNet Cable customers now total 162,000 and OptusNet DSL customers total 23,000. Scott Lorson, Acting Managing Director of Consumer and Multimedia said Optus has experienced unprecedented call volumes and sales in response to its broadband campaigns.
>
> "We are pleased to have reached this significant milestone in such a short timeframe and we expect the momentum to continue. Optus is playing a

7 TPG media advertisement. URL: www.tpg.com.au

8 Telstra, *Cheaper prices send broadband numbers soaring* , media release, 11 June 2004, URL: http://www.telstra.com.au/communications/media/mediareleases_article.cfm?ObjectID=31894

> major role in the expansion of the broadband market in Australia by increasing the level of competition," Mr Lorson said.[9]

The majority report has challenged Telstra's decision to lower broadband prices in February. The Government does not support Telstra, or any other carrier, misusing market power; however, the process of price reduction and competition within the sector has clearly simulated broadband uptake. Government Senators believe that this is evidence that the current level of regulation and competition is driving the market in a positive direction.

Divestiture of Telstra's Foxtel stake and HFC network

The majority report notes favourably that ACCC has called for serious consideration to be given to Telstra's divestiture of both its share in Foxtel and its HFC network. This hardly comes as a surprise given the Labor Party's – so far – declared position on Telstra's holding of Foxtel shares. However, Government Senators note that the ACCC had arrived at its view on the basis of a concern for a perceived conflict of interest on the part of Telstra, rather than from: (1) any behavioural evidence of a conflict of interest by Telstra; and/or (2) firm knowledge of real community benefits that would flow from such a divestiture. We further note that no witness has at any stage of the inquiry offered the Committee any evidence that the proposed divestiture would not simply result in other players in the broadband market being able to take over the market to the disadvantage of Telstra, and the Australian people.

Government Senators note that the Government will continue to refine the regulatory regime to ensure that no one sector of the community is disadvantaged. As Senator Alston as Minister for Communications, Information Technology and the Arts pointed out in 2002:

> We know that Telstra is in both of those networks. I have made it plain that, if there is any indication that Telstra is running dead on DSL, we would take a very dim view. That is one thing; it is another thing to say that simply because they are in Foxtel and there is a possibility that they might act in a way that you disapprove of that would then justify a policy decision to excise them, presumably against their wishes and against the wishes of the shareholders in Telstra, not to mention the shareholders in the Foxtel consortium. That would be a very big step.[10]

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9 Optus, *Optus reveals new plans as broadband number accelerate*, media release, 4 July 2004, URL: http://www.optus.com.au/Vign/ViewMgmt/display/0,2627,1031_36907-3_31346--View_303,FF.html

10 Senator the Hon Richard Alston, *Telecommunications Competition Bill 2002*, *Senate Hansard,* 19 December 2002, p.7376.

The new Minister for Communications, Information Technology and the Arts, Senator the Hon Helen Coonan, reinforced this position and rejected calls by the ACCC to compel Telstra to sell its 50 percent share in Foxtel.[11]

Conclusion

The Government's National Broadband Strategy seeks to make Australia a world leader in the availability and effective use of broadband, to deliver enhanced outcomes in health, education, community, commerce, and government and to capture the economic and social benefits of broadband connectivity.[12] Under this strategy the Howard Government, in partnership with State and Territory Governments, has invested $142.8 million on a range of programs directed specifically at supporting both competition and the uptake of broadband service. As Communications Minister Senator Coonan has said:

> Take-up is also being fostered by the Australian Government under the National Broadband Strategy, which includes significant targeted funding programs including the $107.8 million Higher Bandwidth Incentive Scheme (HiBIS) and the $23.7 million Coordinated Communications Infrastructure Fund. With the first registrations of ISPs under HiBIS, we can expect the uptake of broadband in regional and rural Australia to increase markedly. The use of broadband across the economy has great potential to increase the productivity of Australian business and to improve the delivery of essential services such as health and education.
>
> More importantly for the economy - the strongest take-up is being seen in the small business sector. In the latest Pacific Internet Broadband Barometer released last week, ACNielsen Consult reported that of those small businesses with an Internet connection, more than 52% are on broadband connections. This has more than doubled from 23% two years ago.[13]

The move to a fully competitive telecommunications market will continue to occur in stages. The Government will continue to support the market's move towards greater competition through a light touch regulatory regime, which aims at allowing market forces to flourish, rather than being crushed under the dead weight of some utopian central planning model as proposed in the majority report.

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11 *The Australian*, 26 July 2004, *No case for Foxtel sale*.

12 National Office for the Information Economy, *Australia's National Broadband Strategy*, 2004.

13 Senator the Hon Helen Coonan, *Broadband take-up climbs,* media release 117/04, 27 July 2004.

The recently released reports on broadband deployment confirm that broadband take-up is growing strongly and that this Government is supporting and encouraging competition in the supply of telecommunications in an appropriate and effective manner. ACCC Commissioner, Mr Ed Willett, issued an update of the ACCC's Snapshot of broadband deployment on 26 July 2004:

> The report shows that as at the end of March 2004, there were 829,300 broadband services connected across Australia, an increase of 130,600 since December 2003. This is the largest quarterly increase since the ACCC began collecting broadband statistics in 2001. Growth in broadband services increased to 18.7 per cent for the March 2004 quarter, reversing the downward trend in growth rates seen over the last three quarters of 2003.[14]

This Committee – the Senate Environment, Communication, Information Technology and the Arts Reference Committee – has undertaken a number of inquiries to examine the Australian telecommunications sector over the past few years. All, including this one, seemed to follow the same script – highly critical and politically motivated attempts to discredit Telstra. The following – unchallenged – observation made during the course of this inquiry seems to provide a good summing-up of these exercises :

> This is the fourth or fifth telecommunications inquiry I have been on since joining this committee three years ago. In just about every one of them I get the impression the inquiry is a matter of Telstra versus the rest of the world.[15]

Government Senators believe that Australian consumers recognise that - while Telstra services are not perfect - they continue to be improved, and that the Government has in place a regulatory regime that will assist Telstra and the telecommunications industry to bring state-of-the-art and affordable broadband services to ordinary Australian businesses and households.

Government Senators consider that, based on the evidence provided to the inquiry, the majority report's recommendations are a contrived solution in search of a problem, and dissent from them in their entirety.

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14 Mr Ed Willett, Commissioner ACCC, *New networks and services important for telecommunications competition: ACCC,* media release 138/04, 26 July 2004.

15 Senator Tsebin Tchen, *Committee Hansard*, Ballarat, 5 February 2004, p.72.

Senator John Tierney
Senator for NSW

Senator Tsebin Tchen
Senator for Victoria

Appendix 1

List of submissions

1	Mr Michael Orford
2	Mr Graham Leake
3	Mr James Nichols
4	Mr Steve Judd
5	Alice Springs Film and Television Australia
6	Paul Budde Communications Pty Ltd
7	ACIL Tasman
7a	ACIL Tasman
8	Mr Steve Ireland
9	Mr Stanley J. Tonkins
10	Gulf Savannah Development Inc.
11	Personal Broadband Australia Pty Ltd
12	Australian Communications Exchange Limited
13	Blacktown City Council
14	ACT Government
15	Townsville City Council
16	Townsville Catholic Education Office
17	Mr Kaon Li
18	Mr Duncan Raymont
19	Mr Malcolm Moore
19a	Mr Malcolm Moore

20	Country Women's Association of NSW
21	Telstra Corporation Limited
21a	Telstra Corporation Limited
22	Australian Association for the Deaf Inc.
23	Bits on Light Pty Ltd
24	Norlink Communications Ltd
25	Engineers Australia
26	Telecommunications Industry Ombudsman
26a	Telecommunications Industry Ombudsman
27	Cabonne Council
28	Interactive Entertainment Association of Australia
29	Small Enterprise Telecommunications Centre Limited
30	Communications Expert Group Pty Ltd
30a	Communications Expert Group Pty Ltd
31	Comindico
31a	Comindico
31c	Comindico
32	Primus Telecom
33	Australian Telecommunications Users Group Limited
33a	Australian Telecommunications Users Group Limited
33b	Australian Telecommunications Users Group Limited
34	Australian Industry Group
35	Mr Paul Johnson
36	Optus
37	Vertical Telecoms Pty Limited
38	Mr Tom Worthington

38a	Mr Tom Worthington
39	Queensland Government
40	Mr Danny Trestian
41	Gold Coast City Council
42	Uecomm Limited
43	University of Ballarat
44	Bond Wireless
45	Silver Connecting Communities Pty Ltd
46	Telecommunications and Disability Consumer Representation
47	Neighborhood Cable Limited
48	City of Ballarat
49	cBallarat Ltd
50	Competitive Carriers' Coalition
51	Confidential
52	Australian Competition & Consumer Commission
52a	Australian Competition & Consumer Commission
53	National Office for the Information Economy
54	Department of Communications, Information Technology and the Arts
55	PowerTel Limited

Appendix 2

Witnesses at public hearings

Wednesday, 12 November 2003 – Canberra

Alice Springs Film and Television Australia

Mr Christopher Tangey,

Comindico

Mr John Stuckey, Chief Executive Officer

Mr David Forman, Director, Corporate Affairs and Regulatory

Small Enterprise Telecommunications Centre Ltd (SETEL)

Mr Ewan Brown, Executive Director

Dr Michael Bourk, Policy Consultant

Communications Expert Group

Dr Walter Green

TransACT Communications

Mr Robin Eckermann, Chief Architect

Mrs Dianne O'Hara, Company Secretary and Regulatory Manager

Mr Tom Worthington – private capacity

Telstra Corporation Ltd

Mr Bill Scales, Group Managing Director, Regulatory, Corporate Relations and Human Resources

Dr Tony Warren, Group Manager, Regulatory Strategy

Mr Denis Mullane, General Manager, Data Business Development

Thursday, 13 November 2003, Sydney

Australian Telecommunications Users Group (ATUG)

Mrs Rosemary Sinclair, Managing Director

Mr Brian Beckor, Callpoint Pty Ltd: Member ATUG

Dr Paul Brooks, Founder and Managing Partner, Brooks Worrad and Partners; Member ATUG

Macquarie Corporate Telecommunications

Mr Maha Krishnapillai, National Executive Strategy

SingTel Optus Pty Ltd

Mr Scott Lorson, Consumer and Multimedia Marketing Director

Mr Paul Fletcher, Director, Corporate and Regulatory Affairs

Blacktown City Council

Mr Craig Dalli, Manager, Governance and Support Services

Vertical Telecoms Pty Ltd (Vertel)

Mr Andrew Findlay, Managing Director

Paul Budde Communication Pty Ltd

Mr Paul Budde, Managing Director

Mr Malcolm Moore – private capacity

Personal Broadband Australia Pty Ltd

Mr Campbell Nicholas, Company Secretary

Mr Charles Reed, Chief Executive Officer

Mr Jonathan Withers, Chief Technical Officer

Monday, 2 February 2004, Nerang, Queensland

Gold Coast City Council

Mr Grayson Perry, Manager, Economic Development

Ms Sarah Cobb, Senior Business Development Officer

Gold Coast Region Information Technology Forum Inc

Mr Geoffrey Provest, Chairman

Mr Neil McKee, Deputy Chairman

Delfin Lend Lease Ltd

Mr Carl Bruhn, Project Director, Varsity Lakes

Bond Wireless

Dr Clarence Tan, Chief Executive Officer and Chairman

Mr Christopher Lane, Chief Technical Officer, Coastalwatch Holdings Pty Ltd

Silver Communities Pty Ltd

Mr Bruce Barclay, Managing Director

Norlink Communications Ltd

Mr Keith Davidson, Chief Executive Officer

Bits on Light Pty Ltd

Mr Robert Farago, Director

Network Technology (Australia) Pty Ltd trading as OntheNet

Mr Tak Woo, Managing Director

Tuesday, 3 February 2004, Nerang, Queensland

Uecomm Ltd

Mr Graeme Ridler, State Manager, Queensland

Mr Brendan Park, Director, Products and Marketing , Melbourne Head Office

Australian Communication Exchange Ltd

Mr Leonard Bytheway, Chief Executive Officer

Telecommunications and Disability Consumer Representation

Ms Gunela Astbrink, Policy Advisor

Nexium Telecommunications

Mr Andras Deme, General Manager

Miss Megan McGregor, Commercial and Regulatory Manager

John Flynn Hospital; John Flynn Medical Centre Tenants Association; South Coast Radiology; and East Coast Cancer Council

Mr Lloyd Hill, Director of Hospital

Thursday, 5 February 2004, Ballarat, Victoria

City of Ballarat

Mayor David Vendy

Mr David Keenan, Executive Director, Economic Development

cBallarat

Ms Maria Angeloni, Executive Director

University of Ballarat

Mr Robert Hook, Pro-Vice-Chancellor, Finance and Development

Mr Jeffrey Dowsley, Manager, Information and Communications Technology Strategy and Planning

Neighborhood Cable Pty Ltd

Mr Fred Grossman, Chief Operating Officer

Mr Jeffrey Feldman, Commercial Manager

Mrs Sari Baird, Company Secretary

Telecommunications Industry Ombudsman

Mr John Pinnock, Ombudsman

Primus Telecommunications Pty Ltd

Mr Ian Slattery, General Manager, Regulatory

Mr Roger Nicoll, General Manager, Planning and Interconnect

Australian Industry Group

Mrs Gillian Gribble, Senior Industry and Policy Adviser

Mr Dean Wickenton, Economist

Australian Competition and Consumer Commission

Mr Ed Willett, Commissioner

Mr Michael Cosgrave, General Manager, Telecommunications

Wednesday, 10 March 2004, Canberra

Australian Communications Industry Forum

Ms Johanna Plante, Chief Executive Officer

Mr Terry Andersen, Project Manager, Operations Codes Reference Panel

Competitive Carriers' Coalition

Mr David Forman, Director, Corporate Affairs & Regulatory, Comindico

Mr Rajiv Jayawardena, Manager, Industry Services, PowerTel Limited

Mr Ian Slattery, General Manager Regulation, Primus Telecom

Mr Steve Wright, Director, Stakeholders Relations, Hutchison Telecommunications

Department of Communications Information Technology and the Arts

Mr Chris Cheah, Chief General Manager, Telecommunications Division

Mr Colin Lyons, General Manager, Telecommunications Competition and Consumer Branch, Telecommunications Division

Mr Simon Bryant, General Manager, Regional Communications Policy, Telecommunications Division

Tuesday, 30 March 2004, Canberra

National Office for the Information Economy

Mr John Grant, Acting Chief Executive Officer

Ms Anne-Marie Lansdown, General Manager, Access and International

Appendix 3

Exhibits

Canberra, 12 November 2003

Communications Expert Group Pty Ltd

Chart of availability of ADSL services at teleservice centres.

Nerang, 2 February 2004

Gold Coast Region Information Technology Forum Inc

Chart of broadband availability in the Gold Coast region.

Norlink Communications Ltd

Report entitled *The Key to the Puzzle of Regional Telecommunications.*

Canberra, 10 March 2004

Hutchison Telecommunications

Advertisement for Telstra Rewards Packages

Details of Telstra Rewards Packages and Family Phones Bonus

Canberra, 13 May 2004 (private meeting)

Ericsson Australia Pty Ltd

Powerpoint presentation entitled *Next Generation Broadband – Broadband Innovation Around the World* by Mr Colin Goodwin, Group Product Manager Broadband, Ericsson Australia - NZ

Appendix 4

Regulatory bodies

The role of industry self-regulation increased under the 1997 reforms, with the industry being made responsible for the development and administration of access arrangements, technical standards and consumer codes. The key features of the regulatory environment are:

- The Australian Communications Authority (ACA), established in 1997, which regulates technical and consumer issues in telecommunications and radiocommunications. It was formed from AUSTEL and the Spectrum Management Agency (SMA).

- The Australian Competition and Consumer Commission (ACCC), which handles competition regulation. This function was transferred from AUSTEL in 1997.

- Industry self-regulatory bodies: the Australian Communications Industry Forum (ACIF), which handles technical standards and consumer issues, established in 1997. And, the Telecommunications Industry Ombudsman (TIO), a company formed by the industry to handle consumer and small business complaints. The TIO's jurisdiction and powers were expanded significantly in 1997.[1]

Australian Communications Authority (ACA)

The ACA was established under the *Australian Communications Authority Act 1997* to regulate the Australian communication industry under the *Telecommunications Act* (TA), the *Radiocommunications Act 1992* (RA), the *Telecommunications (Consumer Protection and Service Standards) Act 1999* and a range of related legislation.[2] The role of the ACA is to:

- Administer the TA and RA

- Report to and advise the minister on telecommunications and radiocommunications issues

- Manage Australia's input into international standards-setting processes

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1 Alasdair Grant, Industry Structure and Regulatory Bodies, in *Australian Telecommunications Regulation (3ed.)* Alasdair Grant (ed.) (ed.), UNSW Press, 2004, p.45.

2 Department of Communications, Information Technology and the Arts, *Connecting Australia. Report of the Telecommunications Service Inquiry*, 2000, p. 27.

- Inform, advise and educate the public about relevant issues
- Provide facilities or services on a commercial basis.[3]

The ACA has powers to conduct public inquiries and investigations into the carriage of services and service content or if it suspects a contravention of the TA. The ACA must make its findings public. However, it has the authority to withhold publication if disclosure would adversely affect a trial, make public personal information, or confidential material.

The ACA has the powers to refer matters under investigation to the ACCC, the TIO or any other body it considers appropriate. It can also apply to the Federal Court to issue mandatory injunctions relating to infringement of the TA.

Australian Competition and Consumer Commission (ACCC)

The ACCC is a Commonwealth statutory authority which administers the economic and competition aspects of the telecommunications regulation, primarily under the *Trade Practices Act 1974* (TPA). It regulates anti-competitive behaviour under Part XIB and access regime under Part XIC of the TPA. The ACCC is also responsible for industry specific legislative provision under TA and arbitrates disputes over Telstra price controls, network access, service and physical infrastructure.[4]

Australian Communications Industry Forum (ACIF)

The ACIF, established in June 1997, is the peak self-regulatory body for the development of consumer codes, operational codes and technical standards. Membership to ACIF is open to all participants in the communications industry, to ensure that TA requirements for industry consultation in code development are met. The board of directors, drawn from carriers, service providers, industry groups and consumer and user groups, oversee the process of code and standard development. The development of codes and standards occurs via reference panels and working committees, which are formed from ACIF's members.

Telecommunications Industry Ombudsman (TIO)

The TIO was established in 1993 and was mandated under TA (1991) to resolve disputes between telecommunications companies and individual or small business consumers. TA (1997) enhanced the jurisdiction of the TIO to include resolution disputes involving Internet Service Providers (ISPs). The TIO is an independent,

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3 Alasdair Grant, Industry Structure and Regulatory Bodies, in *Australian Telecommunications Regulation (3ed.)* Alasdair Grant (ed.), UNSW Press, 2004, p.45.

4 Alasdair Grant, Industry Structure and Regulatory Bodies, in *Australian Telecommunications Regulation (3ed.)* Alasdair Grant (ed.), UNSW Press, 2004, p.47.

industry-sponsored body, which all telecommunications industry participants are required to join under the *Telecommunications (Consumer Protection and Service Standards) Act 1999*.[5]

5 Department of Communications, Information Technology and the Arts, *Connecting Australia. Report of the Telecommunications Service Inquiry*, 2000, p. 28.