



Telecommunications Competition Regulation

Inquiry Report

Report No. 16 20 September 2001 © Commonwealth of Australia 2001

ISBN 1 74037 055 4

This work is subject to copyright. Apart from any use as permitted under the *Copyright Act 1968*, the work may be reproduced in whole or in part for study or training purposes, subject to the inclusion of an acknowledgment of the source. Reproduction for commercial use or sale requires prior written permission from AusInfo. Requests and inquiries concerning reproduction and rights should be addressed to the Manager, Legislative Services, AusInfo, GPO Box 1920, Canberra, ACT, 2601.

Publications Inquiries:

Media and Publications Productivity Commission Locked Bag 2 Collins Street East Melbourne VIC 8003

Tel:	(03) 9653 2244
Fax:	(03) 9653 2303
Email:	maps@pc.gov.au

General Inquiries:

Tel: (03) 9653 2100 or (02) 6240 3200

An appropriate citation for this paper is:

Productivity Commission 2001, *Telecommunications Competition Regulation*, Report No. 16, AusInfo, Canberra.

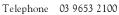
The Productivity Commission

The Productivity Commission, an independent Commonwealth agency, is the Government's principal review and advisory body on microeconomic policy and regulation. It conducts public inquiries and research into a broad range of economic and social issues affecting the welfare of Australians.

The Commission's independence is underpinned by an Act of Parliament. Its processes and outputs are open to public scrutiny and are driven by concern for the wellbeing of the community as a whole.

Information on the Productivity Commission, its publications and its current work program can be found on the World Wide Web at www.pc.gov.au or by contacting Media and Publications on (03) 9653 2244.

Canberra Office Level 3, Nature Conservation House Cnr Emu Bank and Benjamin Way Belconnen ACT 2617 PO Box 80 Belconnen ACT 2616 Telephone 02 6240 3200 Facsimile 02 6240 3399 Melbourne Office





21 September 2001

The Honourable Peter Costello MP Treasurer Parliament House CANBERRA ACT 2600

Dear Treasurer

In accordance with Section 11 of the *Productivity Commission Act 1998*, we have pleasure in submitting to you the Commission's report on *Telecommunications Competition Regulation*.

Yours sincerely

Mike Woods Presiding Commissioner

Richard Snape Deputy Chairman

Terms of reference

REVIEW OF TELECOMMUNICATIONS SPECIFIC COMPETITION REGULATION

Section 151CN of the *Trade Practices Act 1974* requires that before 30 June 2000, the Minister for Communications, Information Technology and the Arts should cause to be conducted a review of Part XIB of that Act which deals with anti-competitive conduct in the telecommunications sector. At the Minister's request, the following reference is made to the Productivity Commission.

I, PETER COSTELLO, Treasurer, pursuant to Parts 2 and 3 of the *Productivity Commission Act 1998*, hereby:

- 1. Refer telecommunications specific competition regulation for inquiry and report within twelve months of receipt of this reference.*
- 2. Specify that in conducting the review, the Commission has regard to the intent of the Parliament in establishing the review, the state of competition in the telecommunications market, and the impact of new technologies and delivery platforms.
- 3. Specify that in making its recommendations, the Commission aim to improve the overall economic performance of the Australian economy.
- 4. In particular, request that the Commission examine and report on:
 - (a) The operation to date of Parts XIB and XIC of the Trade Practices Act 1974, and the following provisions of the Telecommunications Act 1997:
 - (i) Part 17, which deals with pre-selection in favour of carriage service providers;
 - (ii) Division 5 of Part 21, which deals with technical standards about the interconnection of facilities;
 - (iii) Part 22 as it pertains to number portability;
 - (iv) Division 3 of Part 25, which deals with ACCC inquiries, particularly in relation to the declaration of services under Part XIC; and
 - (v) Parts 2 to 5 of Schedule 1, which deal with various access matters;
 - (b) The community and economic benefits and costs, including ongoing network investment, flowing from the provisions mentioned in paragraph 4(a);

- (c) Whether the provisions in paragraph 4(a) are sufficient to prevent integrated firms taking advantage of their market power with the purpose or effect of substantially lessening competition in a telecommunications market, or whether alternative arrangements are required or appropriate; and
- (d) Whether any or all of the provisions mentioned in paragraph 4(a) above should be repealed or amended.
- 5. Specify that the review:
 - (a) Take account of any recent studies undertaken;
 - (b) Have regard to the established economic, social and environmental objectives of the Australian Government; and
 - (c) Not encompass the structural separation of Telstra, in line with Government policy on this issue.
- 6. In undertaking the review, the Commission is to advertise nationally, consult with key interest groups and affected parties, and release a draft report. The Government will respond to the final report produced by the Commission within six months from the date it is received.

PETER COSTELLO

* Received 21 June 2000. The reporting deadline was subsequently extended to 22 September 2001.

On 3 January 2001, the Productivity Commission received a letter from the Assistant Treasurer, Senator The Hon. Rod Kemp, specifying that in undertaking the review the Productivity Commission should:

- have regard to the differing levels of competition across Australia and consider whether a greater recognition of those differing circumstances should be incorporated into competition regulation; and
- specifically consider the implications of current pay television programming arrangements for the development of telecommunications competition in regional Australia, and consider whether any additional regulatory measures are needed to facilitate access to pay television programming.

These additions arise from the Report of the Telecommunications Service Inquiry (the Besley inquiry).

Contents

Ter	rms of	reference	iv
Ab	brevia	tions and explanations	xviii
Key	y mess	ages	XX
Ove	erview		xxi
Recommendations			xxxvii
1 Why this inquiry matters		1	
	1.1	The importance of telecommunications	1
	1.2	The future of telecommunications in Australia	3
	1.3	Background to the regulatory environment	6
	1.4	Scope of the report	6
	1.5	The broad telecommunications framework	8
	1.6	The Commission's approach to the inquiry	12
	1.7	Other inquiries and reports	13
	1.8	WTO commitments	13
	1.9	Consultation	15
	1.10	Report structure	15
2	Com	petition issues	17
	2.1	Overview of the report's analytical framework	18
	2.2	What are the prima facie rationales for regulatory intervention?	22
	2.3	Regulatory options	39
	2.4	Two critical concepts: markets and convergence	54
	2.5	The risks of regulatory failure	61
3	Teleo	communications industry	67
	3.1	Introduction	68
	3.2	Who are the main players?	68
	3.3	Overview of telecommunications industry	73
	3.4	Nature of main service providers	82

CONTENTS

	3.5	Infrastructure investment	87
4	State	of competition	99
	4.1	Introduction	100
	4.2	Competition in telecommunications	100
	4.3	Assessing the state of competition	101
	4.4	Local access services	106
	4.5	Local fixed telephony services	112
	4.6	Long distance telephony services	119
	4.7	Mobile services	127
	4.8	Fixed and mobile telephony	132
	4.9	Internet services	134
	4.10	Data services	137
	4.11	Broadband services — residential	140
	4.12	Has effective competition developed sufficiently to dismantle regulations?	147
5	Anti-	competitive conduct	151
	5.1	Competition, anti-competitive conduct and regulation	152
	5.2	Establishing assessment criteria	155
	5.3	Regulatory approaches	156
	5.4	Experience under Part XIB	165
	5.5	Assessment	170
	5.6	Policy options	187
6	Infor	mation provisions and reporting requirements	203
	6.1	Tariff filing directions	204
	6.2	Section 155 of the Trade Practices Act	206
	6.3	Record keeping rules	207
	6.4	ACCC reporting functions	210
	6.5	Participants' views	210
	6.6	Conclusions	215
7	Teleo	communications access: current arrangements and their use	217
	7.1	Introduction and guide to access in the inquiry	218
	7.2	The telecommunications access regime	218
	7.3	The use of Part XIC	224

8	Ratio	onale for access	243
	8.1	Introduction	243
	8.2	What regime will best encourage efficient competition in final markets?	244
	8.3	Is there a rationale for a <i>specific</i> telecommunications access regime?	246
9	Scop	e of the access regime	255
	9.1	Introduction	255
	9.2	The objects of access	256
	9.3	Assessing the existing declaration criteria	261
	9.4	Narrowing the scope of the competition tests with auxiliary requirements	266
	9.5	New declaration criteria	277
	9.6	Maintaining incentives for investment	285
	9.7	Monitoring as an alternative to declaration	295
	9.8	Exemptions	297
	9.9	The duration of declaration	299
10	Eval	uating institutions and processes	303
	10.1	Introduction	304
	10.2	One or two regulators of competition regulation?	305
	10.3	Specific versus generic regulators	306
	10.4	Decision makers: courts, bureaucrats and others	308
	10.5	The right processes	320
	10.6	Efficient use of regulatory resources	322
	10.7	Avoiding regulatory errors and reducing business uncertainty	336
	10.8	Decentralised decision making: the role of and incentive for commercial negotiations	350
11	Acce	ss pricing	363
	11.1	Introduction	364
	11.2	Are pricing principles useful?	364
	11.3	Current pricing principles and practices	369
	11.4	An access pricing framework	372
	11.5	Are regulated access prices too low or too high?	392

	11.6	How do existing approaches to telecommunications pricing fare?	404
	11.7	More detailed pricing guidance	406
	11.8	The impact of social regulations on efficient access pricing	413
12	Carr	ier licence conditions	417
	12.1	Industry development plans	418
	12.2	Facilities access	423
	12.3	Network information	437
13	Stan	dards and industry codes	443
	13.1	Introduction	443
	13.2	Current procedures	445
	13.3	Participants' views and discussion	448
14	Num	ber portability	453
	14.1	Introduction	454
	14.2	Defining number portability	454
	14.3	The rationale for regulation — why mandate number portability?	454
	14.4	The current regulatory framework and its application	458
	14.5	Evaluation of the implementation of number portability	460
	14.6	The benefits and costs of implementing number portability	465
	14.7	Pricing principles	470
15	Carr	ier pre-selection	475
	15.1	Introduction	475
	15.2	The rationale for regulation	477
	15.3	The current regulatory framework and its application	478
	15.4	Costs and benefits of carrier pre-selection	482
	15.5	Options for refining the current regulatory requirements	485
16	Regi	onal differences in competition	491
	16.1	Introduction	492
	16.2	Geographic differences in competition	493
	16.3	Forms of competition in telecommunications markets	496
	16.4	Infrastructure investment in regional areas	500

	16.5	Should competition regulation take account of regional differences in competition?	502
17	Pav '	ΓV and regional telecommunications	511
1,	17.1	Introduction	512
	17.2	Ownership links and other key relationships	513
	17.3	Access to pay TV content	518
	17.4	Options for access to pay TV content	539
	17.5	Anti-siphoning and digitisation	557
18	Univ	ersal service arrangements	561
	18.1	Universal service regime	562
	18.2	Competition and USOs	568
	18.3	Process issues	578
	18.4	Customer service guarantee	580
	18.5	TTY equipment	580
A	Regu	latory background	583
B	Parti	cipation	603
С	Netw	orks deployed by carriers	607
D	Acce	ss pricing approaches	621
E	Num	ber portability	657
F	Indu	stry development plans	667
G	Delay	ys in the access regime	675
Η	The A	Australian pay TV industry	685
Ι	Adm	inistrative and compliance costs	699
J	Servi	ces declared under Part XIC	707
Glo	ssary		715
Ref	erence	es	721
BO	XES		
1.1	The	e role of Internet and data services in the 'new' economy	2
2.1	Ke	y messages	17
2.2	Ge	neral issues about regulation	18
2.3	Na	tural monopoly	24

2.4	What the TPA and ACCC say about market definitions in telecommunications	54
3.1	Key messages	67
3.2	Main types of telecommunications providers	69
3.3	Telecommunications regulatory bodies	72
3.4	Key features of the telecommunications industry	74
3.5	Use of telecommunications and related services, 2000	75
3.6	Selected capital expenditure projects undertaken or planned	89
3.7	Examples of planned network deployments in regional areas	96
4.1	Key messages	99
4.2	A selection of views on the state of competition	105
4.3	Participants' comments on competition with the local loop	111
4.4	Selected price offerings in residential local call market — August 2001	116
5.1	Key messages	151
5.2	Extracts from Part XIB of the Trade Practices Act	158
5.3	The ACCC's comparison of the pre and post July 1999 competition notice regime	161
5.4	Competition notices issued	166
5.5	Other 'major' investigations under Part XIB (to August 2000)	169
5.6	Repeal of Part XIB and Australia's international obligations	189
5.7	What does it mean to 'take advantage' of market power?	195
6.1	Key messages	203
6.2	Tariff filing — Telstra	206
6.3	Regulatory accounting framework	208
6.4	Reporting requirements of the RAF	209
7.1	Key messages	217
7.2	Standard access obligations	221
7.3	Non-price issues in the ACCC's assessment of Telstra's first three undertakings	233
8.1	Key messages	243
8.2	Specific versus generic access regime? Some participants' views	247
8.3	Appropriate generality and specificity in regulation	248
9.1	Key messages	255
9.2	Declaration criteria in the general access regime (Part IIIA)	266

9.3	The Commission's draft report declaration criteria	279
9.4	Analysing the ACCC's response to the proposed draft report declaration criteria	281
9.5	Possible elaborations of the tests	284
9.6	The effect of declaration on investment: participants' views	287
9.7	Views about access holidays	291
10.1	Key messages	303
10.2	Does the right to reject an interim determination reduce an access seeker's risk?	317
10.3	The need for speed?	330
10.4	How does the TPA prevent multiple or conflicting actions under Part XIC and Part IIIA?	347
10.5	When might there be gains from commercial negotiation for seekers and providers after declaration?	353
10.6	The effects of final offer arbitration	358
11.1	Key messages	363
11.2	Incentives for higher cost entrants with marginal cost access pricing	387
11.3	Views about the level of access prices	393
11.4	Profitability of the PSTN	397
12.1	Key messages	417
12.2	The Facilities Access Code	426
12.3	'Facilities' and 'services'	429
13.1	Key messages	443
13.2	Standard and code setting legislation in the Telecommunications Act	444
13.3	Interconnection codes and standards — key outputs of the ACIF's Network Reference Panel	449
14.1	Key messages	453
14.2	Consumer switching costs resulting from a lack of number portability	455
15.1	Key messages	475
15.2	Summary of the key elements of the Telecommunications Act 1997 relating to carrier pre-selection	479
15.3	Participants' views on asymmetric pre-selection	490
16.1	Key messages	491
16.2	Examples of new regional telecommunications models	500

16.3	Selected examples of the ACCC's assessment of the geographic dimension of markets	504
17.1	Key messages	511
17.2	Participants' experience in seeking pay TV content	519
17.3	The cost of sourcing content direct from program supplies	521
17.4	Foxtel's arguments for exclusive contracts	531
17.5	The ACCC's views of the nature of the problem	533
17.6	Experience in the United States and the United Kingdom	534
17.7	The importance of pay TV content for regional rollouts	537
17.8	ACCC's proposal no longer restricted to vertically integrated pay TV operators	545
17.9	The ACCC's specific proposals	546
17.10	Defining some key terms	547
17.11	Non-discrimination and access	549
17.12	A possible pricing principle for retail pay TV	553
18.1	Key messages	561
A.1	Summary box: pre 1990	586
A.2	Summary box: 1990 to 1996	589
A.3	The regulators and their responsibilities	598
A.4	Summary box: 1997 to date	600
C.1	List of licensed carriers — to end June 2001	608
C.2	TransACT network	615
D.1	TSLRIC components — operating, common and capital costs	623
D.2	Equi-proportional and additive markups to recover common costs	625
D.3	Asymmetric effects in the social surplus function	632
D.4	Assessing the prudence of investment	635
D.5	Accounting for the early provisioning of capacity	636
D.6	The effect of incumbent downstream market power on the optimal access price markup	650
E.1	Summary of key elements of the Telecommunications Act 1997 relating to portability	658
E.2	Summary of the key elements of the Numbering Plan relating to portability	659
E.3	Technical solutions for providing number portability — on-switch and off-switch solutions	661
F.1	AAPT industry plan, 1997 to 2001	668

F.2	Global Dial, 1 December 1999 to 1 December 2001	668
F.3	Telstra, 2000 to 2001	669
F.4	Uecomm (formerly United Energy Telecommunications), 1 January 1999 to 30 December 2000	669
F.5	Legislative requirements of industry development obligations	670
H.1	Pay TV and exclusive programming in Australia: Foxtel's view	687
H.2	Access to programming content: the views of a content provider — the AFL	694
H.3	The anti-siphoning list	696
H.4	The ABA's recommended changes to the anti-siphoning list	697
I.1	Regulatory sections within telecommunications firms	702
FIGU	JRES	
1.1	The impact of convergence	5
2.1	A framework for competition policy in telecommunications	19
2.2	Instruments for dealing with market power	39
3.1	Number of licensed carriers	70
4.1	Telstra's share of retail long distance markets	123
4.2	Mobile services wholesale market shares, 1993–2000	129
7.1	Declaration under Part XIC	220
7.2	Setting terms and conditions of access under Part XIC	223
9.1	The effects of 'have regard to' clauses versus required conditions	267
10.1	Decision makers under Part XIC	309
10.2	Choices among processes for achieving access	321
11.1	International comparisons of net origination charges	394
15.1	Pre-selection churn	484
17.1	Key vertical relationships in the Australian pay TV industry	515
D.1	Concavity of the profit function generates asymmetric effects from regulatory errors	631
E.1	Take up rate of local number portability	660
E.2	Take up rate of local rate and freephone portability	660
E.3	Cable & Wireless Optus network architecture for LNP	662
E.4	Redirection from terminating exchange	663
E.5	Redirection from terminating exchange with IN lookup	664
E.6	Query on release (Step one — the call attempt)	664
E.7	Query on release (Step two — the query and redirected call)	665

CONTENTS

G.1	Resolution of telecommunications arbitrations by the ACCC	675
	-	
G.2	Individual disputes before the ACCC over time	677
G.3	Number of generic disputes before the ACCC over time	678
G.4	The impact of dispute characteristics on dispute length	682
TAB	LES	
2.1	Comparing key instruments for dealing with market power	53
3.1	Number and size distribution of ISPs	71
3.2	Telecommunications services revenue	76
3.3	Internet use	79
3.4	Largest players by type of provider	83
3.5	Telstra — sales revenue and other indicators	84
3.6	Cable & Wireless Optus — sales revenue and other indicators	85
3.7	Profitability performance — main players	86
3.8	Nature of ownership — largest carriers	87
3.9	Capital expenditure — largest 3 players	88
3.10	Current and proposed network operators on long-haul routes	92
3.11	Cable (HFC, fibre) customer access networks	95
4.1	Local access lines in service	107
4.2	Fixed and mobile wholesale services — combined market, early 2001	109
4.3	Local telephony retail revenue	113
4.4	Local telephony retail market shares	114
4.5	Long distance telephony revenue — largest 3 players	120
4.6	Long distance retail market shares	122
4.7	Indexes of prices of national long distance and international calls, 1996-97 to 1999-00	124
4.8	Mobile subscribers and wholesale market shares	129
4.9	Fixed and mobile telephony — wholesale market shares, early 2001	133
4.10	Internet services (dial-up) — retail market shares	135
4.11	Data services and enhanced voice retail market shares	138
4.12	Data services market shares	139
4.13	Pay TV service providers — delivery systems and coverage	142
4.14	Pay TV services — customer reach and national market shares	143
4.15	High speed internet services — selected providers	146

7.1	The use of declaration provisions under Part XIC	227
7.2	The status of arbitrations under Part XIC, by service	237
10.1	Main powers of access seekers and providers	315
11.1	How the application of existing pricing methods rates against the pricing principles	405
14.1	Classification of number portability services in Australia	455
14.2	Percentage of customers that would change provider with and without portability — by service	458
14.3	Slippage in number portability implementation	461
14.4	STM Consulting estimates of benefits from introducing portability	466
14.5	Articulation of technical versus financial obligations for number portability	471
15.1	Costs arising due to the introduction of carrier pre-selection	482
16.1	Competition in telecommunications markets in Queensland	495
16.2	Regional markets in WA telephony services	496
16.3	Examples of new infrastructure providers in regional Australia	501
17.1	Ownership links with delivery platforms and telecommunications companies	517
C.1	Trunk network carriers (current and planned networks)	610
C.2	Carriers with networks in capital city CBDs (inc. planned)	612
C.3	Customer access networks in capital cities	614
C.4	Some network providers in regional Australia	617
C.5	Cellular mobile network operators (current and planned)	618
D.1	Estimates of PSTN access prices over time	629
D.2	Illustration of the impacts of sub-caps on recovery of the access deficit	649
F.1	Reports on carrier performance, 1992 to 1997, 1997-98 and 1998-99	673
G.1	Notified disputes by type of service	676
G.2	Estimated probability of a resolution to a dispute in the telecommunications access regime	680
G.3	Delay in arbitrations associated with different types of dispute	681
H.1	Selected suppliers of programming for pay TV	690
I.1	Administrative and compliance costs of the Australian telecommunications regime, 1999-00	704

Abbreviations and explanations

Abbreviations

ACA	Australian Communications Authority
ACCC	Australian Competition and Consumer Commission
ACIF	Australian Communications Industry Forum
ADSL	Asynchronous Digital Subscriber Line
ATUG	Australian Telecommunications Users Group
AUSTEL	Australian Telecommunications Authority (now defunct)
CBD	Central Business District
CDMA	Code Division Multiple Access
Commission	Productivity Commission
CSP	Carriage service provider
DCITA	Department of Communications, Information Technology and the Arts
DDSO	Digital data service obligation
DFAT	Department of Foreign Affairs and Trade
DSL	Digital Subscriber Line
GATS	General Agreement on Trade in Services
GSM	Global System for Mobiles
HFC	Hybrid Fibre Coaxial
IAP	Internet access provider
IP	Internet Protocol
ISDN	Integrated Services Digital Network
ISP	Internet service provider
LMDS	Local Multipoint Distribution Service
LNP	Local number portability

XVIII ABBREVIATIONS AND EXPLANATIONS

MMDSMultichannel Multipoint Distribution ServiceNUSCNet universal service costPOPPoint of PresencePSTNPublic Switched Telephone NetworkTATelecommunications Act 1997	Minister	Minister for Communications, Information Technology and the Arts
POPPoint of PresencePSTNPublic Switched Telephone Network	MMDS	Multichannel Multipoint Distribution Service
PSTN Public Switched Telephone Network	NUSC	Net universal service cost
1	POP	Point of Presence
$T\Delta$ Telecommunications $\Delta ct 1007$	PSTN	Public Switched Telephone Network
111 Telecommunications Act 1777	ТА	Telecommunications Act 1997
TAF Telecommunications Access Forum	TAF	Telecommunications Access Forum
TCPSS ActTelecommunications (Consumer Protection and Services Standards) Act 1999	TCPSS Act	
TIO Telecommunications Industry Ombudsman	TIO	Telecommunications Industry Ombudsman
TPATrade Practices Act 1974	TPA	Trade Practices Act 1974
TSLRIC Total Service Long Run Incremental Cost	TSLRIC	Total Service Long Run Incremental Cost
TTY Teletypewriter	TTY	Teletypewriter
ULL Unconditioned Local Loop	ULL	Unconditioned Local Loop
USL Universal service levy	USL	Universal service levy
USO Universal service obligation	USO	Universal service obligation
USP Universal service provider	USP	Universal service provider
VDSL Very high speed Digital Subscriber Line	VDSL	Very high speed Digital Subscriber Line
VoIP Voice over Internet Protocol	VoIP	Voice over Internet Protocol
WTO World Trade Organization	WTO	World Trade Organization

Explanation

Submission page reference numbers	The page reference numbers for submissions cited in this report are taken from printed copies held by the Commission. Because many submissions and documents were originally received as electronic files or downloaded from the internet, the cited page numbers may differ from page numbers in printed copies held by others.
Transcript page reference numbers	Transcript page reference numbers are taken from electronic copies held by the submission in which all transcript pages for this inquiry are number sequentially.

Key messages

Australia needs an efficient and innovative telecommunications sector. To achieve this and to gain the greatest benefit from the convergence with broadcasting and the internet, the regulatory regime should promote economically efficient use of, and investment in, telecommunications services and the many network technologies that are unfolding.

The fixed phone network remains important and is still in transition to competition. There is a need for effective access to this network at prices that allow efficient competition, while not destroying the incentives for long-term investment. There are grounds for lighter regulation of other telecommunications services, such as mobile.

There are two key regulatory requirements aimed at increasing effective competition in telecommunication services:

- telecommunications-specific provisions for controlling anti-competitive conduct (Part XIB of the Trade Practices Act), with competition notices and a threshold test easier than Part IV, based on 'effect or likely effect'; and
- a telecommunications-specific access regime (Part XIC) that provides for access to telecommunications infrastructure.

Part XIB may have both a preventative and remedial role in stemming anti-competitive behaviour. It is speedier and less costly to implement than Part IV. However, it has been used when alternatives would have been more appropriate. It lacks appropriate transparency and accountability. The Commission recommends its retention conditional on the introduction of a better appeals mechanism intended to enhance procedural fairness and to test the validity of the ACCC's actions. The Commission also recommends:

- that a competition notice should no longer constitute prima facie evidence of the matters set out in the notice;
- an increase the transparency of the arrangements; and
- that the ACCC develop guidelines about when Part XIB is preferred to Part XIC or other mechanisms for dealing with access-related issues.

The Commission recommends the retention of a telecommunications-specific access regime (Part XIC). However, the current arrangements have deficiencies. The declaration criteria in Part XIC are vague and provide excessive discretion to the regulator. The processes for determining conditions for access under Part XIC are slow and inefficient. This reflects the failure of undertakings as a mechanism and the predominance of lengthy bilateral arbitrations between conflicting parties.

For prospective new telecommunications facilities the risk of future declaration and regulated pricing under the current regime could prove to be a barrier to investment, with long-run consequences for consumers and for Australia's overall economic efficiency; There are also adverse interactions between certain social regulations and incentives for facilities competition and efficient access pricing.

The Commission recommends:

- the replacement of the existing declaration criteria with more objective and targeted requirements and the introduction of appeal and sunset provisions,
- the ability to determine prices jointly for a group of access seekers, rather than always using bilateral arbitration, combined with binding time limits for many regulatory processes;
- a range of measures such as legislated access pricing principles, elimination of the access deficit and provisions for limiting the application of declaration and regulated access pricing to new investments that recognise the importance of investment in telecommunications facilities.

Overview

The main thrust of the report

An efficient and innovative telecommunications sector is a key element in Australia's future economic growth. It is an enabling technology for the economy more generally. As well as basic telephony, there is now a plethora of new services (internet, messaging, email, videoconferencing) and network technologies (mobile, satellite and cable) — and many other services and technologies are on the horizon. Separate sectors, such as broadcasting and telecommunications, are converging. Content, data and mobile services will become increasingly important — and play a bigger role.

In the context of this rapidly evolving sector, future policy making needs to recognise that:

- networks with broadband capacity will assume greater importance and will be the conduit for a large array of services beyond basic telephone services;
- open access networks, by encouraging downstream competition and innovation, have major advantages over those that restrict entry;
- exclusive arrangements for providing content to particular network technologies (satellite, cable, mobile or copper-based) are not likely to deliver the most efficient outcomes;
- effective telecommunications competition regulation should reduce denial of access;
- the incentives for innovation and investment in telecommunications infrastructure are maintained by reducing barriers to entry by new operators, while ensuring that regulation does not expropriate the returns that are needed for risky investment; and
- investors and entrants are likely to perceive that the risks are lower where the regulatory environment is transparent, independent, timely and administratively efficient.

The Commission's review of telecommunications competition regulation has closely scrutinised the effectiveness of current arrangements and also has assessed the policies that will be required as the environment changes.

In contrast to its position in the draft report, the Commission considers that telecommunications-specific provisions for dealing with anti-competitive conduct remain relevant and a modified version of Part XIB of the TPA should be retained for the next few years. However, the absence of appropriate transparency and accountability in the current provisions potentially encourages regulatory error and overreach — and the Commission has proposed measures to deal with this.

The Commission considers that telecommunications-specific regulation of access terms and conditions (Part XIC of the TPA) is still required to maintain efficient competition over the medium term.

Nevertheless, current regulatory processes for access to telecommunications facilities are slow, uncertain and inefficient — with adverse consequences for parties seeking access. There are potential pitfalls in the criteria that determine services that are subject to access and in determining access prices. Associated with this there is a risk of reduced investment in core telecommunications infrastructure — with long-run consequences for consumers and for Australia's overall economic efficiency. The Commission has advocated a number of reforms to the telecommunications-specific access arrangements to address these shortcomings.

Telecommunications policy issues raise complex conceptual and practical problems. The goal of policy should not be to mimic outcomes that might be achieved in a purely competitive market or to determine a regulatory approach that purports to guide the industry over the long run. The limits to effective regulation and the speed of technological change make this an unachievable ideal. A more pragmatic and modest policy goal is to devise a set of arrangements that are workable, that improve efficiency over the medium term, that reduce some of the bigger risks of making regulatory errors and that promote the contribution of telecommunications to Australia's future economic growth.

The Commission argues that the focus of regulation should be on the core bottlenecks, best exemplified by access to the local loop. The competition regime it advocates is less heavy-handed than the current one, but it is not light-handed — because the market is not yet sufficiently competitive.

As one protection from excessive regulation, the Commission recommends the legislated sunsetting of declared services — so that services where market power has diminished can be freed from access regulation. But if the pace of technological change is more revolutionary (wireless local loops, new fibre optic networks and additional satellite services), there may be even greater capacity for reducing regulation in the future. Inevitably, telecommunications competition regulation — and in particular, the anti-competitive provisions — will have to be re-visited in the next five years because of the rapid pace of technological and market change.

How important are telecommunications services?

Telecommunications services comprise one of the key sectors of the Australian economy — accounting for revenue of around \$25 billion in 2000. There is no comparably sized sector with as fast a rate of growth. Investment has been substantial. More than \$9 billion of capital expenditure is expected to have taken place in 2000-01 alone.

Since new regulations allowed free entry in mid-1997, the number of telecommunications carriers has grown rapidly from just 3 to 77 in June 2001. Over the same period, prices have fallen for all services — particularly the most competitive services, such as long distance and mobile services.

Despite strong growth over the last five years, recently there has been a downturn in the global telecommunications market, with spectrum values falling and future investment plans reassessed. A major Australian carrier, One.Tel, failed during the period of this inquiry, and others have experienced large losses. However, the longer-term importance of telecommunications to the economy is unlikely to diminish.

Why should telecommunications services be regulated?

The single most important factor underlying the need for regulation in telecommunications is the ubiquitous local loop (the last mile) owned by Telstra. These are the lines and switches that are used for sending or receiving voice and data on fixed phone lines. If a rival to Telstra wishes to compete in non-local services — such as mobile, national and international long distance calls — it must have access to the local loop to offer call origination and termination services to its customers. In the absence of regulation, Telstra could exercise market power through its domination of local loop services. That power arises from several obstacles that weaken entry into certain telecommunications services. The most important are the:

- large costs of local network construction relative to the size of the market and the high cost of exiting the industry. In this case, there will usually be just one provider of the facility a natural monopoly;
- desire by customers to be able to make calls to and receive calls from anyone (the value of any-to-any connectivity) so that, if they have to make a choice between a small network and a large one that are not interconnected, they will generally prefer the large one; and

• legacy of an historical statutory public monopoly in telecommunications services that led to the dominance of one firm in the provision of the customer access network and in terms of subscriber numbers.

The barriers to entry posed by these obstacles are exacerbated by some (otherwise less important) additional factors:

- an incumbent with a large subscriber base has the capacity to manipulate artificially the costs borne by consumers when switching between carriers (by, for example, denying or delaying number portability which allows customers to keep their telephone number when they change carriers); and
- a vertically integrated carrier has the incentive to resist access in subtle ways through anti-competitive behaviour, such as delaying access ('forgetting the keys to the exchange' as one participant put it).

These barriers to entry generate market power and can lead to higher prices for consumers than would otherwise be the case, with associated efficiency losses across the economy. Comfortable monopolies may also be less cost conscious and innovative.

In telecommunications, two-way access problems may also occur if competition arises in the provision of facilities for mobile or fixed origination services. In this case, carriers must buy termination services from each other, with the possibility that they may levy high terminating charges or, in some cases, collude. Even small non-dominant networks may exercise market power and levy high terminating charges if they deal with a large dominant network that has its access charges determined by a regulator — the 'hunter becomes hunted'.

Of course, new technologies, the process of convergence, new services and growing demand can erode the market power of established players in unexpected ways. When Alexander Bell patented the telephone in 1876 it was seen as a fleeting novelty. Western Union, the largest telegraph service of the time, sealed its long-term fate by passing up the opportunity to buy the patent. The lesson is that competition can emerge from surprising sources, so that contented incumbents find market power weakened by new technologies and changing patterns of demand. Thus, in telecommunications, internet and new wireless networks may, in the future, threaten revenues based on long distance charging and on local loop dominance.

How should telecommunications be regulated?

The key measures for dealing with the problems posed by significant market power in telecommunications are:

- *Downstream price controls*, such as retail price caps, which seek to remove excess profits. Currently, Telstra must set its prices so that they do not change by more than a specified amount (a CPI-x approach). However, such price caps are imperfect and, if used by themselves, can blunt the incentives for efficiency in the regulated firm. Also, such measures do not necessarily lead to entry and therefore competition in downstream markets.
- An access regime, which aims to provide access at regulated interconnection prices. If prices are set correctly, this encourages downstream competition and efficient entry and buy/build decisions by new entrants in telecommunications. For certain services (declared and deemed services), Part XIC of the TPA stipulates the obligations of parties for providing access to telecommunications services.
- Laws against anti-competitive conduct, which aim to stop parties from defending monopoly positions by deterring entry or denying supply (so encompassing access regulation issues). This is not seen as an effective substitute for laws dealing directly with access. However, once access is separately regulated, incumbents have greater incentives to deter effective competition in other ways (such as slow interconnection). Part XIB of the TPA sets out telecommunications-specific rules intended to discourage anti-competitive conduct.

None of the instruments is light-handed and most involve an element of, at least, tacit price control. All are imperfect. As in all regulation, there are also costs and risks:

- Administrative and compliance costs arise for the regulator and telecommunications carriers and service providers associated with the inevitably detailed requirements of the regime. Processes are often protracted, legalistic and encourage 'gaming'. As testimony to the resources involved, Telstra has been cited as the biggest consumer of legal services in Australia.
- There are risks of regulatory failure because the information requirements of decision making are very high. There is a great deal of uncertainty about the level and structure of efficient access prices. There is also the danger that the regulator may be influenced by populism, precedent or other forms of 'regulatory capture'.
- The risk of eroding the incentive to invest in risky, rapidly changing, telecommunications technologies is probably the greatest challenge of such regulation.

Process issues and the detail of regulations can be as important as choosing between the broad range of options. Proper processes ensure the timely, transparent and efficient resolution of problems and guard against regulatory creep and gaming. As many participants indicated to the Commission, the 'devil is in the detail'.

A key issue is whether telecommunications should be subject to generic or telecommunications-specific policy. In this context, the Commission considers that regulatory issues should be dealt with at the highest level of generality possible. Departures from a generic approach should only be justified either by policy-relevant features of telecommunications that are unique, or by transitional costs associated with moving from an existing specific approach to a general one.

While there are few policy relevant features that, taken separately, are unique to telecommunications, the overall combination of features makes telecommunications quite different from other regulated utilities in some policy-relevant dimensions. Of particular prominence are any-to-any connectivity issues and the need for speedy processes given fast moving markets and technologies. Moreover, a specific regime can set out some telecommunications-specific aspects of interconnection — such as standard access obligations under the current Part XIC. They also provide for regulatory measures — such as number portability and pre-selection — that are only relevant to telecommunications (and which the Commission sees as being useful in promoting competition).

These features of telecommunications provide some grounds for a specific set of access arrangements that are different from, or extend, those that apply under the national access regime (Part IIIA of the TPA).

Who should be the regulator?

In the generic access regime, there are two regulators, the National Competition Council, which conducts declaration inquiries, and the Australian Competition and Consumer Commission (ACCC), which conducts arbitration under the access regime. Separation of the declaration and arbitration phases of the access regime accords with good regulatory practice. In the parallel inquiry into Part IIIA, the Productivity Commission argues for the retention of the dual regulator approach on this basis. However, the Commission considers that one regulator should continue to oversee telecommunications-specific competition regulation as the procedural advantages of a dual regulator approach for telecommunications would not justify the transition costs and delays in decision making.

Unlike many countries, the bulk of Australian telecommunications regulation is overseen by a general competition regulator, the ACCC, rather than by a telecommunications-specific regulator. There is little to choose between the two approaches. The Commission proposes that the status quo be maintained.

Is telecommunications-specific anti-competitive legislation still needed?

Part XIB was intended to promote competition in telecommunications by facilitating speedy action against anti-competitive conduct. The Part operates in addition to that which applies generally under Part IV of that Act, in particular section 46 relating to *misuse of market power*. There are two central differences.

First, the test for anti-competitive conduct under Part XIB is 'effect or likely effect' of behaviour, rather than 'purpose' as under section 46 of Part IV.

- 'Effect or likely effect' is more expansive than the 'purpose' test in section 46. While under Section 46 purpose may be inferred from effect, it may not always be possible to establish purpose, even if an effect were observed.
- The economic rationale for anti-competitive conduct regulation is to prevent conduct that is regarded as being against the public interest, and this objective stands irrespective of the intent of the firm involved. However, there is also a risk that 'likely effect' may capture actions that appear anti-competitive, but are not so.

Second, Part XIB, but not Part IV, allows the ACCC to issue competition notices to firms it alleges are engaged in anti-competitive conduct. Firms are subject to the risk of heavy penalties if they cannot demonstrate to a court that the alleged conduct is not anti-competitive, reversing the usual onus of proof. They face fines up to \$1 million a day for each day that anti-competitive conduct continues after the issue of the notice. However, the competition notice regime avoids the costly and slow court-based processes of Part IV because the firm receiving the notice usually ceases the alleged anti-competitive conduct before the matter reaches a court. Even though competition notices have been issued in only three cases (internet peering, commercial churn and broadband ADSL), the threat of notices is likely to discourage anti-competitive behaviour in the first place. Thus, Part XIB may have both a preventative and remedial role in stemming anti-competitive behaviour by telecommunications carriers with market power.

Part XIB has the further advantages relative to Part IV of speed, and being more able to deal with several cases simultaneously at reasonable administrative cost. Speedy action is particularly important in telecommunications, given the rapid movement of markets and the ability to acquire first mover advantages.

Australia is not alone in using arrangements specific to telecommunications:

• Other countries use similar screening mechanisms — such as 'purpose and effect' — to detect anti-competitive behaviour and also legislate ex ante preventative measures, for example, through licence conditions.

However, the capacity for speed and deterrence in the regulations also increases the potential that the ACCC might threaten anti-competitive action in circumstances where it is not warranted (or that a firm may fear such action), with adverse effects on innovation, commercial business strategies and investment. The risk arises because the accountability mechanisms under Part XIB are poor. A firm can only appeal against a competition notice if a notice is in force. If the firm stops the apparent anti-competitive behaviour to avoid the heavy penalties, the notice is withdrawn, removing the capacity for independent review of its merit.

Telstra has claimed that competition notices issued by the ACCC were inappropriate. However, on the limited public information available, the Commission considers that:

- the ACCC appears to have been cautious in taking complaints to the competition notice stage; and
- there was a reasonable basis for some policy intervention on at least the internet peering and commercial churn cases.

Thus, while Part XIB has the potential negative effect of encouraging regulatory error and overreach and deterring acceptable pro-competitive conduct, the Commission judges that this has not been a large problem to date. The Commission nevertheless notes that measures superior to Part XIB might have been used for at least some of these matters — such as a code for transferring customers from one carrier to another (churning) in the Telecommunications Act or possible use of Part XIC for broadband ADSL.

While it has some strengths, Part XIB lacks procedural fairness and transparency. As noted, the scope for appeals is small. Also, there are no requirements for public transparency in a number of other areas including the receipt of a complaint, the commencement of investigations or their conclusion. The ACCC does not even need to inform a firm that it is the subject of a complaint, or that it may be seeking information from others. There are no requirements for a public inquiry or draft reports or, indeed, for any report at all.

After weighing up its strengths and weaknesses, the Commission supports retention of a modified version of Part XIB, pending the development of more sustainable competition in telecommunications. This support is conditional on the introduction of a better appeals mechanism intended to enhance procedural fairness and to provide a record of the validity of the ACCC's actions. The Commission also recommends that the arrangements be amended so that a competition notice no longer constitutes prima facie evidence of the matters set out in the notice. Some changes that will increase the transparency of the arrangements are also strongly warranted. The Commission also recommends that the ACCC develop guidelines about when Part XIB is preferred to Part XIC or other mechanisms for dealing with access-related issues.

There remains a need for the sort of information obtained through the tariff filing and record keeping rules of Part XIB, and the Commission proposes their continuation.

As Part XIB should only be a transitional measure, it should be further reviewed in three to five years.

Reform of the access regime

The telecommunications-specific access regime was intended to be relatively 'light-handed'. The access regime seeks to:

- provide scope for co-regulation through an industry forum when deciding on access issues (the Telecommunications Access Forum (TAF));
- encourage an access provider to develop some standard terms and conditions (an 'undertaking') for ratification by the ACCC; and
- resolve many matters through commercial negotiation, providing for arbitration in the absence of agreement.

However, in practice, the telecommunications-specific provisions have been far from light-handed. The ACCC has rejected Telstra's four undertakings, and Telstra has said it will not be proposing any more. The TAF has been ineffective — and the Commission recommends its removal for that reason. While there have been many commercially negotiated arrangements, for many major players and key services the ACCC has been obliged to determine access prices in arbitrations. These have involved protracted processes that, when appeal processes are considered, are not yet complete in most cases.

The Commission considers that the aspiration for 'light-handed' regulation — while commendable — is not realistic at present. This is because the key to an effective access regime is the determination of access prices. Such price regulation, whether implicit or explicit, is not light-handed. The key to reform, however, is to ensure that the regulations are well designed by following six strategies.

First, the scope of regulations should be appropriate. Access arrangements should only apply to those core telecommunications services where the case for intervention is strong. Additional layers of regulation — regulatory creep — should be avoided. The current scope of regulation may be too great. While the major

bottleneck is local loop services, other services have also come under the regime — such as various trunk services and mobile services. The Commission:

- recommends a tighter set of criteria for declaration. The Commission also recommends that the current objects clause (the 'long-term interests of endusers') be amended to focus on promoting efficiency in the use of, and investment in, telecommunications services. This would explicitly recognise the importance of maintaining investment incentives as well as efficient use, and would also maintain consistency with the Commission's recommended objects clause for Part IIIA of the TPA;
- proposes a range of options that deal with the problem that the risk of declaration may deter some investment. The problem arises because access regimes may reduce the expected returns from risky investments. For investments that would clearly not meet the declaration criteria, the Commission has recommended that the ACCC should be able to issue binding rulings in advance of the investment. For other investments, the Commission has mooted certain types of regulatory contracts and other approaches that reduce uncertainty for investors. The Commission proposes a process to refine the approaches;
- proposes on practical grounds that the sundry set of access arrangements (for example to mobile towers) currently prescribed by licence conditions should remain under the Telecommunications Act rather than be incorporated into the TPA. There are grounds for the ACCC to monitor whether inefficient pricing by power utilities for access to their poles is frustrating the rollout of new broadband networks. Industry Development Plans a current licence condition should be abandoned immediately; and
- recommends that the legislation specify sunset clauses for all declared services, as well as streamlined procedures for revoking declarations to services where access is no longer required.

Second, regulations should encourage commercial arrangements. Businesses should make their own decisions about pricing, markets and technologies to the greatest extent possible:

• the Commission recommends some changes to access pricing that may permit more flexibility.

Third, regulations should be applied only where there are problems. The Commission recommends that pre-selection and declaration only be applied to firms with significant market power. The narrowing of declaration in this way is contingent on dealing with the problem that even non-dominant networks may exert terminating market power as a result of the interaction of the access regime and social regulations. The Commission recommends a way in which this could be

achieved. The Commission also recommends that exemption criteria be altered to make exemption a more realistic option for particular services or carriers where declaration should not apply. The Commission recommends the revocation of declaration of mobile services, since it does not consider that enforced access is required in workably competitive services.

Fourth, policy instruments should be geared to the severity of the problems. In some cases, declaration may be used in circumstances where a lighter-handed alternative was superior. The Commission recommends that the ACCC should be free to use formal price monitoring for a fixed period as an alternative to existing regulatory options.

Fifth, the regime needs to recognise policy interconnections. Problems in other sectors can have adverse effects in telecommunications. For example, the Commission:

- raises the issue of whether access to pay TV content (discussed in more detail later), local council practices and access pricing by power utilities to their poles might frustrate the rollout of new broadband networks. The Commission proposes remedies for these potential problems; and
- reiterates the need to amend regulations in broadcasting (particularly antisiphoning and multi-channelling) that reduce the scope for effective competition in telecommunications services.

Finally, as far as possible access regulations should be consistent across industries. Differences in access regimes should exist only when justified:

• the Commission recommends that the objectives, principles and processes of Part XIC should only differ from the national access regime (Part IIIA) where that can be justified. The Commission makes a number of recommendations that bring the two Parts of the TPA closer together.

These regulatory strategies are intended to make the regime as tightly focused and light-handed as possible.

There is also a need for reform of the processes governing access. Current processes for determining access terms and conditions are resource-intensive, slow and inefficient, reflecting the failure of undertakings as a mechanism and the predominance of lengthy bilateral arbitrations between conflicting parties. Gaming permeates the operation of the regime, as parties strategically try to exploit the procedures to their advantage. An efficient regime must try to anticipate and mitigate such gaming.

The Commission recommends a range of options for greater regulatory efficiency:

- pricing principles that spell out the criteria for regulatory pricing decisions should be included in legislation both to reduce uncertainty by parties and also to encourage more efficient pricing. The Commission's approach to pricing principles recognises that the pricing rules that would be appropriate in a first-best world may not be efficient when other regulations (such as line rental price controls) distort markets or prices. The Commission also recommends that the ACCC indicate the broad pricing method that will apply to a service as part of the declaration inquiry this would help provide greater certainty to access providers and seekers;
- some form of multilateral price setting so that a group of access seekers can resolve their conflicts with an access provider simultaneously;
- a binding time limit of four months for interim determinations so that entrants can get access to bottleneck telecommunications services quickly;
- some practical guidelines for determining costs that should reduce uncertainty by all parties and which should allow determinations to be updated quickly, so as to stop repeated cycles of burdensome process; and
- a range of amendments that reduce the scope for gaming and deal with the ambiguity that arises with some existing provisions.

Although they add to delays, the Commission does not favour eliminating appeals against final determinations, nor reducing the scope of evidence that can be put to them. Such appeals are critical where regulatory decisions have such importance for investment incentives and efficiency for access seekers and providers. They recognise the sizeable potential for regulatory error and provide an incentive for the regulator to maintain balance in its decisions. However, the Commission also recommends that an indicative time limit should be placed on the Australian Competition Tribunal so that appeals can be resolved in a timely way.

Given the intrusiveness of declaration, the Commission also considers that declaration should have the scope for an appeal, but that such an appeal should not stay other processes under Part XIC. In this way, accountability and speed can be jointly achieved.

Guiding or reference access prices may help the transparency of the access regime, while still allowing bilateral negotiations where parties so wish.

The Minister for Communications, Information Technology and the Arts has the power to make access pricing determinations. This is a vestigial power from the previous more prescriptive regulatory regime, and lacks the accountability and transparency of good regulatory policy. The Commission recommends the removal of the discretion for Ministerial pricing determinations or, as a less preferred arrangement, a requirement for publishing reasons for pricing decisions.

The vexed issue of pricing

No area of infrastructure economics is probably as controversial as access pricing. Mistakes in setting the level and structure of access prices can have significant adverse implications for consumers and overall economic efficiency.

Excessively high access prices discourage service-based competition and lead to excessively high retail prices, less product variety and the potential for inefficient duplication of facilities.

Excessively low access pricing produces its adverse effects gradually, but its long-run welfare implications can be worse than where access prices are high. With low access prices, in the short term there would be ample entry of service-based providers into telecommunications markets to take advantage of cheap interconnection charges, with significant downstream investment. Consumers would face low final prices for services. This can occur because much of the huge cost of providing telecommunications services is sunk into trenches, copper wire and switches that cannot be used for any other purpose. Once the poles, holes and wires are in place, the actual costs of running a network are quite small. But if access prices remain too low, in time a long-run crisis in provision of telecommunications services will appear — no firm (including the incumbent) will make core network investments if it cannot expect a reasonable return on capital. Consumers will be worse off if there is no service or poor quality congested services than if the service is provided at higher prices.

Accordingly, access pricing is a balancing act that tries to avoid the dangers of either error — a theme that is also central in the Commission's parallel inquiry into the national access regime. But errors are inevitable — especially for the extraordinarily complicated networks used in telecommunications. Given the long-run consequences, the ACCC should try particularly to avoid large errors on the low side and closely monitor the basic network (the public switched telephone network or PSTN) for any reduction in investment or service quality.

The Commission considers that the ACCC's current methodology for calculating costs for PSTN services underestimate efficient long-run costs (and access prices), but that the effect this has on investment and efficiency are offset — in the *short* run — by the effects of downstream market power by the incumbent.

For the core PSTN, the risks of adverse investment effects from the ACCC's regulated access prices are currently not likely to be significant, although they may become more pronounced over the medium run as competition further develops in downstream markets. For prospective new facilities — such as a new generation mobile network — the risk of future declaration and uncertain regulated pricing may delay or deter investment.

The structure of access prices is also very important. Currently, most access prices are set as per minute or per call charges, when ideally access prices should allow for more flexibility, such as a flat charge and a variety of use charges (so-called multi-part tariffs). The Commission suggests some ways in which a better structure for access pricing might be achieved.

Some of the inefficiencies in access and access pricing are the unintended consequence of social regulations. As a result of retail price regulations, the costs of Telstra's local lines cannot be wholly recovered from users — the 'access deficit'. This is funded through usage and access charges, with adverse impacts on efficiency. The ACCC's report into price controls recommended their removal (and the use of better targeted measures), and the Commission agrees. Over the transition period, the Commission also advocates a less distortionary way of funding the access deficit by collecting contributions from carriers through a levy — as for universal service obligations.

Regional issues

There is less competition in regional areas than in metropolitan areas. This stems from the high cost of duplicating facilities and more dispersed demand. However, there is a range of telecommunications services in regional Australia and new ones are developing:

- the three main mobile carriers provide coverage of up to 97 per cent of the population, and satellite services offer 100 per cent coverage;
- regional areas have more comprehensive pay TV content, via Austar's services, than metropolitan areas;
- satellite services are also being used to provide high speed internet; and
- in some regional cities such as Mildura, Ballarat, Canberra and Cooma cable networks are being or have been rolled out.

However, new networks and smaller pay TV companies face difficulties in obtaining access to content, which may frustrate the rollout of cable networks. The main pay TV companies are linked by contracts or ownership to content supply and

to the provision of telecommunications services. This provides the incentive and the means to use the control of content to limit competition in pay TV and related telecommunications markets by reducing the commercial viability of new or proposed delivery platforms.

The major likely consequence of any denial of content is delay in the availability of very high bandwidth facilities in regional Australia, weakened competition in basic telephony and less product innovation (for example, less scope for unbundling of pay TV channels). While a definitive diagnosis of the severity of the problem is difficult because the industry is new and developing and alternative platforms for broadband services and sources of content are emerging, the Commission considers that a problem exists.

Existing potential remedies, such as Part IV of the TPA (or indeed, Part XIB) probably would not suffice as an instrument to tackle this issue. However, other policy interventions — such as prohibitions on exclusive or discriminatory supply arrangements between program suppliers and pay TV operators — involve extensive regulation. Such regulation has uncertain, but potentially dramatic effects on the pay TV industry's structure, may not be warranted by the scale of the problems so far apparent and may not effectively remedy the difficulties being faced by regional networks. Given the development of video on demand and other internet-based content, the basis for intervention may also lessen.

That said, the Commission does have concerns about the potential anti-competitive effects of control of pay TV content. It recommends that the ACCC report publicly and annually on the state of competition in the relevant markets and investigate and report on instances where new networks are having difficulty accessing content or pay TV services. The Government should signal a clear intent to legislate if there is evidence from the ACCC's reports of a sustained threat to effective competition in either the pay TV or a telecommunications market as a result of the control of pay TV content. This additional role for the ACCC should be subject to sunset provisions.

The Commission also reiterates the findings of its broadcasting report that there are major flaws in the regulation of multichannelling and anti-siphoning with effects that flow on to telecommunications in regional and other areas.

The universal service obligation (USO) also has significant regional implications. Under the USO, all Australians are guaranteed a certain standard of telecommunications service at a reasonable cost, regardless of where they live. The cost deficit is currently funded by Telstra, with reimbursement by a levy on carriers, including Telstra itself. However, there have been large discrepancies between the estimates of the size of the USO to be funded, inconsistency between the methods used for pricing access and calculating the USO, and a concern about the transparency and accountability of the process. This raises potential risks for competitive neutrality and efficiency if the estimates are significantly different from the actual costs of provision. The Commission recommends that power to determine the aggregate universal service levy lie with the ACA, rather than the Minister, with provision made for full merit review of determinations by the Australian Competition Tribunal.

Telstra is currently the only universal service provider, but new arrangements that may encourage competitive provision have been introduced. However, they also have the risk of distorting competitive neutrality and efficiency. The Commission recommends that, as part of the evaluation of these new arrangements, consideration be given to the possible advantages and disadvantages, and practicality, of a marketbased tendering process for encouraging efficient competition in the provision of universal service. It has discussed options that may allow for more appropriate market-based contestable provision of the USO.

Recommendations

[Note: 5.1, for example, refers to the first recommendation in chapter 5.]

Anti-competitive conduct

- **5.1** The Commission recommends that the anti-competitive conduct provisions of Part XIB of the TPA be retained, subject to the introduction of an appeal mechanism such as that proposed in recommendation 5.2. [page 188]
- **5.2** The Commission recommends that Part XIB of the TPA be amended to allow for appeal against the merits of a competition notice, even after its withdrawal. [page 193]
- **5.3** The Commission recommends that Part XIB of the TPA be amended so that a Part B competition notice no longer constitutes prima facie evidence of the matters set out in the notice. [page 196]
- **5.4** The Commission recommends that the ACCC be required to issue a public report for all allegations of anti-competitive conduct that proceed beyond the 'reason to suspect' phase into the investigative phase. Each report should include a justification of the use of Part XIB in preference to other possible regulatory mechanisms such as Part XIC. [page 197]
- **5.5** The Commission recommends that the ACCC be required to develop and publish, after public consultation, guidelines for deciding which regulatory mechanism is most appropriate in particular cases. [page 198]
- **5.6** The Commission recommends that the ACCC include a much greater range of information about activity under Part XIB in its annual publication on 'Telecommunications competitive safeguards' or, at least annually, in some other suitable public document. [page 198]
- **5.7** The Commission recommends that Part XIB of the TPA be amended so that damages are not restricted to conduct that occurs while a competition notice is in force and that action for damages is allowed irrespective of whether a competition notice is in force. [page 199]

- **5.8** The Commission recommends that the maximum penalty for delay in providing information under section 155 of the TPA be increased substantially. [page 201]
- **5.9** The Commission recommends that the anti-competitive conduct provisions of Part XIB of the TPA be reviewed within a timeframe of three to five years. [page 202]

Information provisions and reporting requirements

6.1 The Commission recommends that the information provision and reporting requirements of Part XIB of the TPA be reviewed in association with the review of the anti-competitive conduct requirements of Part XIB proposed in recommendation 5.9. [page 216]

Rationale for access

8.1 The Commission recommends the retention of provisions for a telecommunications-specific access regime. However, its objectives, principles and processes should adopt those in Part IIIA wherever possible. [page 253]

Scope of the access regime

- **9.1** The Commission recommends that:
 - the objects clause in s. 152AB(1) of Part XIC of the TPA be changed from the long-term interests of end-users to 'The object of this Part is to promote economically efficient use of, and investment in, telecommunications services'; and
 - the relevant sections of the Telecommunications Act 1997 be amended so as to adopt the new objects clause in Part XIC. [page 260]
- **9.2** The Commission recommends that Part XIC should be amended so that where a non-dominant network sets an 'unreasonable' terminating charge, the provider of a declared service can charge a fee to the terminating party for terminating on that party's network, with that fee subject to arbitration by the ACCC. [page 277]

9.3 The Commission recommends the adoption of stringent new declaration criteria, crafted to achieve the following intention:

The ACCC may not declare the telecommunications service of a carrier or carriage service provider unless it is satisfied of all of the following matters:

- (a) that access (or increased access) to the service would promote a substantial increase in competition in at least one telecommunications service;
- (b) that there is enduring market power in the service;
- (c) that the service is of national significance, having regard to:
 - (i) the consideration that provision of a similar service in a number of smaller areas can be jointly described as a 'service';
 - (ii) the importance of the service to the national economy;
- (d) that access to the service can be provided without undue risk to human health or safety; and
- (e) that access (or increased access) to the service would not be contrary to the public interest. [page 282]
- **9.4** The Commission recommends that s. 152AB(4) in Part XIC be amended to provide more explicit guidance to the ACCC to the matters to which it should have regard when making an assessment of competition and market power in a declaration inquiry. [page 283]
- **9.5** The Commission recommends that there be scope in Part XIC for the ACCC to issue a binding ruling that the services provided by a prospective investment would not meet the declaration criteria. In that instance, the services concerned would be exempt from declaration.

A telecommunications infrastructure provider should have rights of appeal to the Australian Competition Tribunal against a determination of the ACCC.

A ruling should apply in perpetuity unless the ACCC could demonstrate that circumstances had materially changed. Such revocation should be appealable to the Australian Competition Tribunal. [page 286]

9.6 The Commission recommends that, on the completion of a declaration or revocation inquiry, the ACCC may use formal price monitoring for a fixed period as an alternative to existing regulatory options. [page 297]

- **9.7** The Commission considers that s. 152AS(4) and s. 152AT(4) should be amended so that the ACCC must grant an exemption to a carrier from declaration unless it is satisfied that the declaration criteria are met for the services subject to the exemption request. [page 298]
- **9.8** In addition to the existing revocation mechanism under s. 152AO, the Commission recommends that Part XIC of the TPA should include an explicit provision for sunsetting declaration. The maximum life of any given declaration should not exceed five years unless a further inquiry recommends its extension, but there should be scope for earlier sunsetting based on:
 - a shorter pre-specified period; or
 - the achievement of pre-specified observable conditions based on the declaration criteria.

Six months prior to the sunsetted expiry of a declaration, the ACCC could seek public comment on whether re-declaration may be required and conduct a new declaration inquiry.

If no inquiry takes place or the inquiry concluded against declaration, then at the sunset date, the declaration would automatically lapse. [page 300]

9.9 The Commission recommends that where a service has expired or becomes of residual importance, declaration may be revoked by the ACCC without a full public inquiry. [page 301]

Telecommunications access: evaluating institutions and processes

- **10.1** The Commission recommends the retention of one regulator to conduct declaration inquiries and oversee arbitration under Part XIC. [page 306]
- **10.2** The Commission recommends that the ACCC remains the appropriate body to oversee telecommunications-specific competition regulation under Parts XIB and XIC of the TPA. [page 308]
- **10.3** The Commission recommends the removal of the discretion for Ministerial pricing determinations under Division 6 of Part XIC of the TPA. If this is not accepted, published reasons for any Ministerial pricing decisions should be required. [page 312]

- **10.4** The Commission recommends the abolition of the Telecommunications Access Forum. [page 314]
- **10.5** The Commission recommends that s. 152CPA(3) of Part XIC of the TPA which does not permit the ACCC to make an interim determination if an access seeker objects to it be repealed. [page 318]
- **10.6** The Commission recommends that s. 152CN(1) of Part XIC of the TPA be modified to allow notifications by an access provider or seeker to be withdrawn only with the joint consent of the access provider and seeker. [page 320]
- **10.7** The Commission recommends amendment of the appeals process for undertakings (s. 152CE of Part XIC of the TPA) so that it mirrors the appeals process for final determinations (s. 152DO of Part XIC of the TPA). [page 324]
- **10.8** The Commission recommends that there should be the capacity under Part XIC of the TPA for class arbitration for bilateral disputes that have a sufficient degree of commonality. [page 328]
- **10.9** The Commission recommends that:
 - 1. The ACCC must make an interim determination within four months of the date of the notification of a dispute; and that s. 152CPA(5) of Part XIC of the TPA be amended so that:
 - (a) interim determinations remain in force for no longer than six months; and
 - (b) this period can only be extended if a public request stating reasons is agreed to by the relevant Minister.
 - 2. S. 152DO should be amended so that the ACT has a four month target time limit for completion of an appeal of a final determination after lodgement of the appeal. If the Tribunal wishes to extend a target limit in a particular case, it should be required to publish notification to that effect in a national newspaper with reasons. [page 334]
- **10.10** The Commission recommends that the ACCC should exercise its discretion in allowing the arbitrator to use and disseminate to contesting parties in an arbitration relevant material submitted in other telecommunications access arbitrations, subject to the requirement that the ACCC has regard to the material's potential commercial sensitivity. [page 335]

- **10.11** The Commission recommends that there be provision for the ACCC to publish an indicative price range that reflects the outcomes of an interim or final determination, so that other parties are in a better position to negotiate commercially. [page 338]
- **10.12** The Commission recommends that merit review of final determinations by the Australian Competition Tribunal be retained, but that provision for backdating of an appeal determination should be clarified by cross referencing to the Commission's proposed amendment to s. 152DNA of Part XIC. [page 343]
- **10.13** The Commission recommends that declarations be subject to a merit appeal process, but the appeal should:
 - be lodged within 21 days after the Commission has made its decision;
 - be limited to four months; and
 - not stay other processes under Part XIC, with the exception of the capacity of the ACCC to make a determination under an arbitration. [page 345]
- **10.14** The Commission recommends that s. 152CQ(1)(a) and (b), and s. 152AR(4) be amended so that the relevant time for assessing 'reasonably anticipated requirements' is the date at which the access request was made, as determined by the ACCC after consultation with the access seeker and provider. [page 348]
- 10.15 The Commission recommends that the words 'some or all of the costs' in s. 152CQ(1)(f) be amended to 'an unreasonable amount of the costs'. In deciding what was 'unreasonable' the ACCC would consider whether:
 - it was inconsistent with the objects clause of Part XIC;
 - it was possible or efficient for the enhancements being sought by the access seeker to be owned by the access seeker;
 - investment in the enhancements (by a party other than the access seeker) is economically inefficient; and
 - the access provider would not be able to recover the full costs of enhancements it was required to make. [page 349]

10.16 The Commission recommends the repeal of s. 152EF(1)(b). [page 350]

10.17 The Commission recommends that:

- (a) the ACCC produce a published method for calculating any backpayment under s. 152DNA of Part XIC of the TPA, which should include the provision for payment of interest and indicate how the appropriate time period for backpayment should be gauged;
 - while, as now, limiting backpayment to a date no earlier than the date of notification of the access dispute concerned.
- (b) s. 152DNA specify that an access price consistent with the published method should be backdated and that obligations to pay backpayments should not discriminate between access seekers and providers. [page 356]

Access pricing

- **11.1** The Commission recommends that a new section be included in Part XIC of the TPA.
 - 1. The ACCC in seeking to reduce access prices that are inefficiently high, must also have regard to the following principles:
 - (a) that regulated access prices should:
 - (i) be set so as to generate expected revenue across a facility's regulated services that is at least sufficient to meet the efficient long-run costs of providing access to these services;
 - (ii) include a return on investment commensurate with the regulatory and commercial risks involved;
 - (iii) generate revenue from each service that at least covers the directly attributable, or incremental, costs of providing the service; and
 - (iv) reflect any uncompensated costs associated with imposed community service obligations.
 - (b) that the access price structures should:
 - (i) allow multi-part tariffs and price discrimination when it aids efficiency; and
 - (ii) not allow a vertically integrated access provider to set terms and conditions that discriminate in favour of its downstream

operations, except to the extent that the cost of providing access to other operators is higher.

- (c) that access pricing should provide incentives to reduce costs or otherwise improve productivity.
- 2. Where there is a conflict between any pricing principle and the objects clause, (s. 152AB(1)), the objects clause has precedence. [page 391]
- **11.2** The Commission recommends that the ACCC commence a revocation inquiry for GSM services once the Commission's new declaration criteria are in place. The declaration of CDMA services should be postponed until the completion of the GSM revocation inquiry. [page 405]
- **11.3** The Commission recommends that in its inquiry report into declaration the ACCC indicate the broad pricing method that will apply to a service. [page 407]
- **11.4** The Commission recommends that there be public disclosure by the ACCC of the costing methodologies on which arbitrations are based and the justification for the approach adopted. This need not include publication of the prices associated with particular arbitrations or of particular commercial-in-confidence cost parameters. [page 411]
- **11.5** While recognising the need to address any consequent social issues, the Commission recommends that the telephone line rental sub-cap that leads to the access deficit be removed. [page 415]

Carrier licence conditions

- 12.1 The Commission recommends that the legislative requirement for Industry Development Plans should be repealed. Existing plans should cease. [page 423]
- **12.2** While there are some inconsistencies between access to facilities under the Telecommunications Act 1997 and Part XIC in the Trade Practices Act, the Commission recommends the continuation of Parts 3 and 5 of the Telecommunications Act on pragmatic grounds, subject to a re-assessment of their need and scope in 2005. [page 434]
- **12.3** The Commission recommends that the ACCC monitor whether inefficient access pricing by power utilities to their poles is frustrating the rollout of new broadband networks. [page 437]

XLIV RECOMMENDATIONS

- **12.4** The Commission recommends that the procedures and obligations under the mandatory network information requirement should be aligned, regardless of the type of information being requested. [page 440]
- **12.5** The Commission recommends that the Ministerial pricing power under Part 3 and Part 4 of the Telecommunications Act 1997 be abolished. [page 441]

Number portability

- **14.1** The Commission recommends that the ACA should determine the criteria for when a pre-porting study is required. [page 463]
- **14.2** The Commission recommends that timeframes for complex ports be revised after 2002 and that carriers regularly provide the ACA with data on the time taken to process ports so that the ACA can monitor the timeliness of porting processes. [page 465]
- **14.3** The Commission recommends that the relevant test for deciding whether to introduce number portability for a given service is whether the economywide benefits to the community of requiring the service outweigh the economy-wide costs. Further, the Commission considers that the ACCC should have regard to both the objects clause and the declaration criteria when deciding whether to 'declare' a service portable. [page 467]
- **14.4** The Commission recommends that the ACCC inform parties of the pricing principles that it is inclined to apply, if required to arbitrate over terms and conditions, at the same time that it informs parties of their obligation to provide portability for a given service. [page 471]
- **14.5** The Commission recommends that any future decision to require portability for a given service, and the associated pricing principles, should be subject to merits review by the Australian Competition Tribunal. [page 473]

Carrier pre-selection

- **15.1** The Commission recommends that the ACCC be responsible for determining which services should be subject to pre-selection requirements, consulting with the ACA on technical matters. [page 481]
- **15.2** The Commission recommends that pre-selection as a service be subject to the new declaration criteria and therefore the requirement to provide pre-

selection should not be applied to new entrants that do not have market power. [page 489]

Pay TV and regional telecommunications

- **17.1** The Commission recommends that the ACCC be required to:
 - report publicly and annually to the Government on the state of competition in the pay TV and related telecommunications markets; and
 - investigate and report on instances where it is aware that proposed or new networks are having difficulty accessing content or pay TV services. [page 556]
- **17.2** The Commission recommends that the Government signal a clear intent to legislate if there is evidence from the ACCC's reports of a sustained threat to effective competition in either the pay TV or a telecommunications market as a result of the control of pay TV content. [page 557]

Universal service arrangements

- **18.1** The Commission recommends that the evaluation of the contestability pilot program be based on the criteria of efficiency and competitive neutrality. As part of the evaluation, consideration should be given to the possible advantages and disadvantages, and practicality, of a market-based tendering process for encouraging efficient competition in the provision of universal service. [page 578]
- **18.2** The Commission recommends that power to determine the aggregate universal service levy lie with the ACA, rather than the Minister, with provision made for full merit review of determinations by the Australian Competition Tribunal. [page 579]