Australian
Competition &
Consumer
Commission

Inquiry into varying the exemption provisions in the final access determinations for the WLR, LCS and PSTN OA services

Issues paper

September 2011

Contents

List of abbreviations and acronyms

ABS	Australian Bureau of Statistics
ACCC	Australian Competition and Consumer Commission
ACMA	Australian Communications and Media Authority
AER	Australian Energy Regulator
CACS Act	Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Act 2010
CAN	customer access network
CBD	central business district
CCA	Competition and Consumer Act 2010
CSP	carriage service provider
c-i-c	commercial-in-confidence
DSLAM	digital subscriber line access multiplexer
ESAs	exchange service areas
FAD	final access determination
HFC	hybrid-fibre coaxial
IAD	interim access determination
LCS	local carriage service
LSS	line sharing service
LTIE	long-term interests of end-users
MSAN	multi-service access node
NBN	National Broadband Network
PSTN OA	public switched telephone network originating access service
PSTN TA	public switched telephone network terminating access service
RAF	regulatory accounting framework
RKR	record keeping rule

SAOs	standard access obligations
SIOs	services in operation
SSU	Structural Separation Undertaking
TPA	Trade Practices Act 1974
Tribunal	Australian Competition Tribunal
ULLS	unconditioned local loop service
VoIP	voice over internet protocol
WLR	wholesale line rental service

1 Introduction

In its *Inquiry to make final access determinations for the declared fixed line services: Final report*,[1] released on 21 July 2011, the Australian Competition and Consumer Commission (ACCC) stated that the issue of the future operation of the exemptions relating to the Wholesale Line Rental (WLR), Local Carriage Service (LCS) and PSTN Originating Access (PSTN OA) services required further investigation and consideration.

Section 152BCN of the *Competition and Consumer Act 2010* (CCA) allows the ACCC to vary a final access determination (FAD) provided certain procedures are followed. Except in limited circumstances, the Commission is required to hold a public inquiry under Part 25 of the *Telecommunications Act 1997* (Telco Act) about a proposal to vary a final access determination.

This issues paper commences the public inquiry into varying the FADs for the WLR, LCS and PSTN OA services in respect of the exemption provisions of those FADs. Specifically, the inquiry will consider whether the exemption provisions in the FADs should be varied, revoked or maintained. The inquiry will not consider varying or revoking any other provisions in the FADs that do not relate to exemptions.

The ACCC recognises that its decision to make the FADs, including the exemption provisions, was made recently. It also recognises that the first round of exemptions only took effect from 30 December 2010 and as a result the evidence on the competition impacts of those exemptions is currently limited. However, the ACCC considers that further examination of the matter of exemptions is warranted by, among other considerations, the change in the legislative framework (discussed in chapter 2) and the rapidly evolving competitive environment (referred to in chapters 5 and 6).

This issues paper sets out the matters, and discusses the issues, on which the ACCC is seeking information and industry views. It calls for submissions by industry participants and other interested parties.

This paper meets the requirement under section 499 in Part 25 of the Telco Act to issue a discussion paper as part of a public inquiry.

1.1 Background

On 20 July 2011, the ACCC decided to proceed to finalise its decision on pricing for the six declared fixed line services and to make FADs for those services.[2] The FADs expire on 30 June 2014. The ACCC noted that pricing issues had been subject to extensive consultation and consideration by the ACCC since December 2009. Finalising prices would provide industry with certainty and stability.

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1 ACCC, *Inquiry to make final access determinations for the declared fixed line services – Final report*, July 2011. The Final Report is available at: www.accc.gov.au/content/index.phtml/itemId/990530.

2 The six declared fixed line services are: the unconditioned local loop service (ULLS), the wholesale line rental (WLR) service, the line sharing service (LSS), the local carriage service (LCS), and the PSTN originating access (PSTN OA) and terminating access (PSTN TA) services. The two final services are known together as PSTN OTA.

In regard to the issue of exemption provisions, the ACCC noted that exemptions had only been the subject of public consultation since April 2011. Submissions received during the previous consultation on making the FADs were extensive and raised a number of complex and contentious issues. The ACCC decided that it needed further information to be in a position to properly assess the issue of exemptions.

To avoid delaying the finalisation of price terms in the FADs, the ACCC decided for the purpose of making the FADs to maintain the exemption provisions in the same form as in the interim access determinations (IADs). The ACCC considered that maintaining the exemptions in the FADs would promote regulatory certainty and stability until the ACCC concluded its further and more detailed consideration of whether the exemptions should continue in the future.

This approach balanced the need for pricing certainty with ensuring the ACCC has adequate time to consider thoroughly these significant exemptions issues.

1.2 Consultation process

As noted above, except in limited circumstances the ACCC is required to conduct a public inquiry about a proposal to vary an FAD. Once a public inquiry commences, the ACCC has six months to release a report on its decision. However, the ACCC may extend or further extend this period, provided that the extension or further extension is for a period of not more than six months, if the ACCC publishes a notice explaining the reasons for the extension.[3]

In considering the exemptions issue, the ACCC will have regard to the extensive submissions and information on the issue of exemptions received during its consultation on making the FADs.

The ACCC will also have regard to information provided in response to an information request to Telstra and a number of access seekers made on 18 August 2011. Details of the information sought and the parties subject to the request are available on the ACCC's website.[4]

After receiving submissions to the issues paper, the ACCC may seek further information from industry prior to the release of a draft report.

The ACCC has included question boxes in the issues paper to assist industry participants in structuring their responses and to ensure that the ACCC receives detailed information on the matters relevant to this inquiry. However, the ACCC invites submissions on any matters relevant to the exemption provisions. As noted above, this inquiry will not consider other provisions in the FADs that do not relate to the exemption provisions.

1.3 Related processes

The ACCC is concurrently assessing Telstra's Structural Separation Undertaking (SSU). The SSU contains interim equivalence and transparency measures in relation to the supply by Telstra of regulated services (which include the WLR, LCS and PSTN OA services)to apply until Telstra's structural separation is completed. If the

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3 Section 152BCK of the CCA.

4 The information request is available at: http://www.accc.gov.au/content/index.phtml?itemId=990530.

ACCC accepts the SSU, these measures would commence. Importantly for current purposes, however, Telstra has indicated that its proposed 'non-price' equivalence measures would apply to declared services that are exempt from the Standard Access Obligations, but that its price equivalence measures would not.[5]

The ACCC will consider the implications of the exemptions in the context of its assessment of the SSU.

1.4 Submissions

The ACCC seeks submissions to this issues paper by **no later than 5:00 pm on 30 September 2011**.

Any submissions received after this date may not be considered.

The ACCC prefers to receive electronic copies of submissions. Electronic submissions should be in either PDF or Microsoft Word format and allow for searchable text.

Please forward submissions and enquiries by email to the contact officer:

Kevin Cheung
Communications Group
Australian Competition and Consumer Commission
Email: kevin.cheung@accc.gov.au
Phone: (03) 9290 1852

Please copy email correspondence to: exemptions@accc.gov.au

To allow for an informed and consultative process, all submissions will be considered as public submissions and will be posted on the ACCC's website. If interested parties wish to submit commercial-in-confidence material to the ACCC, they should submit both a public and a commercial-in-confidence version of their submission. The public version of the submission should replace the commercial-in-confidence material with an appropriate symbol or '[**c-i-c**]'. The commercial-in-confidence version of the submission should clearly identify the commercial-in-confidence material by highlighting the confidential material and identifying it with an appropriate symbol or '[**c-i-c**]'. Alternatively, the commercial-in-confidence material may be provided in a separate commercial-in-confidence document provided with the public version of the submission.

The *ACCC-AER information policy: the collection, use and disclosure of information* sets out the general policy of the ACCC and the Australian Energy Regulator (AER) on the collection, use and disclosure of information. A copy of the guideline can be downloaded from the ACCC website: www.accc.gov.au.

1.5 Structure of this issues paper

This report is structured as follows:

Chapter 2 summarises the history of exemptions.

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[5] Details on Telstra's structural separation and the ACCC's consultation process on this issue are available on the ACCC's website at: www.accc.gov.au/content/index.phtml/itemId/1003999.

Chapter 3 sets out the relevant legislative framework and the criteria the ACCC must have regard to in relation to its decision to vary, revoke or maintain the exemption provisions in the FADs.

Chapter 4 summarises the reasoning behind the granting of geographic exemptions by the ACCC and the Australian Competition Tribunal.

Chapter 5 examines current evidence on the effects of geographic exemptions on the state of competition in fixed line service markets.

Chapter 6 sets out the ACCC's initial thinking on the key factors influencing the state of competition in the exempt exchange service areas.

2 History of exemptions

This chapter summarises the history of the exemptions incorporated in the final access determinations (FADs) for the declared fixed line services (sections 2.1 and 2.2). Section 2.3 describes the method used to determine whether an exchange service area (ESA) becomes exempt.

2.1 Exemption determinations under the previous legislative framework

Prior to the passage of the *Telecommunication Legislation Amendment (Competition and Consumer Safeguards) Act 2010* (CACS Act), exemptions determinations could be made under the ordinary individual and ordinary class exemption provisions of the *Competition and Consumer Act 2010* (CCA) (see section 2.2 below).

Before the interim access determinations (IADs) commenced on 1 January 2011, there were eight exemption determinations which affected the wholesale line rental (WLR), local carriage service (LCS) and public switched telephone network originating access (PSTN OA) services:

Tribunal's Metropolitan Orders

- Tribunal's 2009 WLR Individual Exemption Order made on 24 August 2009
- Tribunal's 2009 LCS Individual Exemption Order made on 24 August 2009
- Tribunal's 2009 PSTN OA Metropolitan Individual Exemption Order made on 9 September 2009 (in relation to the supply of the PSTN OA in metropolitan ESAs)

PSTN OA CBD Orders

- ACCC's Individual Exemption Order No. 6 of 2008 made on 30 October 2008, affirmed and varied by the Tribunal's 2009 PSTN OA CBD Individual Exemption Order made on 9 September 2009 (in relation to the supply of the PSTN OA in 17 CBD ESAs)

ACCC's Class Orders

- ACCC's Class Exemption Determination No. 2 of 2008 made on 22 August 2008 (in respect of WLR)[6]
- ACCC's Class Exemption Determination No. 1 of 2008 made on 22 August 2008 (in respect of the LCS)[7]
- ACCC's Class Exemption Determination No. 3 of 2008 made on 29 October 2009 (in respect of PSTN OA)[8]

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6 This determination was subsequently varied by the ACCC's Class Exemption (Variation) Determination No. 1 of 2009.

7 This determination was subsequently varied by the ACCC's Class Exemption (Variation) Determination No. 2 of 2009.

8 This determination was subsequently varied by the ACCC's Class Exemption (Variation) Determination No. 3 of 2009.

(together, the Exemption Determinations).[9]

2.1.1 ACCC's decision to make exemption orders

On 9 July 2007, Telstra provided the ACCC with an application for exemption from the standard access obligations (SAOs) in respect of the LCS and WLR in 371 ESAs across metropolitan Australia. On 8 October 2007, Telstra provided the ACCC with an exemption application from the SAOs in respect of PSTN OA in 17 ESAs in central business districts (CBDs). Telstra also provided a second exemption application on this date in respect of PSTN OA in 387 ESAs across metropolitan Australia. On 12 October 2007, Telstra provided the ACCC with two further applications for exemption from the SAOs in respect of the WLR and LCS in an additional 16 ESAs across metropolitan Australia.

Following a period of consultation, the ACCC made ordinary individual exemption orders in respect of the WLR, LCS and PSTN OA services in certain metropolitan ESAs, and PSTN OA services in CBD ESAs, subject to certain conditions and limitations. These orders were made in August 2008 (for WLR and LCS) and October 2008 (for PSTN OA).[10]

The ACCC also made ordinary class exemption orders under the now repealed section 152AS of the *Trade Practices Act 1974* (TPA) in substantively the same terms as the individual exemption orders.[11] The effect of the class orders was to make the exemption apply to all access providers (not just Telstra, which lodged the individual exemption applications).

2.1.2 Tribunal's final decision on the ACCC's exemption orders

Access seekers sought review of the ACCC's individual exemption orders by the Tribunal. In December 2008, the Tribunal set aside the ACCC's WLR and LCS exemption orders.[12] Telstra then sought judicial review of the Tribunal's decision in the Full Federal Court and on 11 March 2009 the Court set aside the Tribunal's decision and remitted the matter back to the Tribunal for further hearing.[13]

On 24 August 2009, the Tribunal handed down its final WLR and LCS individual exemption orders, subject to conditions and limitations which were different to those originally imposed by the ACCC.[14]

On 9 September 2009, the Tribunal handed down its final PSTN OA individual exemption orders.[15] The PSTN OA order with respect to metropolitan ESAs had

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9 Copies of all the Exemption Determinations are available on the ACCC's website: www.accc.gov.au.

10 A copy of these orders can be found on the ACCC's website: www.accc.gov.au.

11 ACCC's Class Exemption Determination No. 1 of 2008 made on 22 August 2008 (in respect of the LCS); ACCC's Class Exemption Determination No. 2 of 2008 made on 22 August 2008 (in respect of WLR); ACCC's Class Exemption Determination No. 3 of 2008 made on 29 October 2009 (in respect of PSTN OA). A copy of these orders can be found on the ACCC's website: www.accc.gov.au.

12 Australian Competition Tribunal, *Chime Communications Pty Ltd* [2008] ACompT 4.

13 Federal Court of Australia – Full Court, *Telstra Corporation Limited v Australian Competition Tribunal* [2009] FCAFC 23.

14 Australian Competition Tribunal, *Application by Chime Communications Pty Ltd (No 3)* [2009] ACompT 4.

15 Australian Competition Tribunal, *Application by AAPT Limited (No 2)* [2009] ACompT 6.

conditions and limitations that were substantively identical to those specified for the Tribunal's WLR and LCS orders. The Tribunal's PSTN OA order with respect to the 17 CBD ESAs effectively affirmed the ACCC's original PSTN OA order with respect to CBD areas.

The Tribunal's Metropolitan Orders applied to a limited number of metropolitan ESAs (380 in total) that are listed in the orders (known as Attachment A ESAs). The Tribunal found that it was in the LTIE for each of those 380 Attachment A ESAs to become 'Exemption ESAs', but only once certain conditions and limitations were satisfied. The Tribunal's Metropolitan Orders set out a process for the ACCC to calculate which ESAs should be exempt at a specific point in time.

On 18 November 2009 the ACCC varied certain aspects of the ACCC's Class Orders in respect of the WLR, LCS and PSTN OA, including their geographic scope, in order for the class exemptions to be consistent with the Tribunal's orders made in relation to metropolitan and CBD ESAs.[16]

Content of the Tribunal's Metropolitan Orders

The Tribunal's Metropolitan Orders provided that any of the 380 Attachment A ESAs may become an 'Exemption ESA' if all of the following three conditions are met:

- the ESA has three or more unconditioned local loop service (ULLS)-based competitors (excluding Telstra)
- the ULLS-based competitors have an aggregate market share[17] in the ESA equal to or greater than 30 per cent, and
- the aggregate ULLS spare capacity for that ESA is equal to or greater than 40 per cent of the aggregate number of WLR SIOs in that ESA.[18]

Once an ESA was determined to be an Exemption ESA, it was still subject to further conditions and limitations before the exemption took effect. In summary, the Tribunal's Metropolitan Orders specified that the exemption would either not have effect in an ESA or not apply to specific access seekers in an ESA, in the event that (capitalised terms are defined in the Tribunal's Metropolitan Orders):

(a) an access seeker is a Queued Access Seeker[19] in that Exemption ESA as at 30 September 2009

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16 ACCC's Class Exemption (Variation) Determination No. 1 of 2009 (in relation to WLR); ACCC's Class Exemption (Variation) Determination No. 2 of 2009 (in relation to the LCS); ACCC's Class Exemption (Variation) Determination No. 3 of 2009 (in relation to PSTN OA). These determinations can be found on the ACCC's website: www.accc.gov.au.

17 Aggregate market share—in respect of each Attachment A ESA the ULLS-based competitors' aggregated share of SIOs, expressed as a percentage, using the following formula: (ULLS + ULLS Spare Capacity + WLR SIOs) / (Total SIOs).

18 The WLR SIOs *only* relate to the WLR SIOs of ULLS-based competitors

19 Queued Access Seeker—in respect of an Attachment A ESA, an access seeker, including a First Queued Access Seeker, who before the Practical Commencement Date submitted a PSR [Preliminary Study Request: a request by an access seeker to Telstra for access to an Exchange Building] in respect of an Exchange Building within the ESA that: (a) is under consideration by Telstra; or (b) has not been rejected by Telstra; or (c) has not been withdrawn by the access seeker; and (d) has not passed a JCI [Joint Completion Inspection: an inspection of an Exchange Building by representatives of Telstra and an access seeker conducted following the completion of construction works in that Exchange Building by the access seeker] in relation to the PSR.

(b) an exchange is a Capped, Potentially Capped or Constructively Capped Exchange[20]

(c) Telstra ceases to supply the ULLS in that ESA, whether to itself or to another person

(d) the supply by Telstra of the WLR, LCS or PSTN OA service to an access seeker is under an agreement that was in force between the access seeker and Telstra as at 30 September 2009, for so long as the agreement remains in force, or

(e) in respect of an end-user, who immediately before 30 September 2009 was supplied with a Bundled Fixed Voice and Broadband Service by the access seeker using the LSS, WLR and LCS supplied by Telstra, until a Prescribed LSS to ULLS Migration Process is established for that access seeker.

The Tribunal's Metropolitan Orders required the ACCC to determine which of the 380 Attachment A ESAs satisfied the conditions in the Orders to become Exemption ESAs. The ACCC was required to collect the relevant data and perform the calculations—using the formula set out in the Orders—to determine which of the Attachment A ESAs satisfied the conditions to become Exemption ESAs. The ACCC was required to publish the list of Exemption ESAs on its website on a six-monthly basis.

Under the Tribunal's Orders, once an Exemption ESA was published on the ACCC's website, the exemption in relation to that ESA came into effect six months after the publication date. For example, the Exemption ESAs published by the ACCC on 30 December 2010 became exempt on 30 June 2011.

After an ESA became an Exemption ESA, it remained an Exemption ESA until the Tribunal's Metropolitan Orders expired or until the relevant service declarations were revoked, whichever date was earlier. This was the case even if the ESA failed to meet any or all of the three conditions at a later date.[21] However, an Exemption ESA ceased to be an Exemption ESA when the Exchange Building in that ESA first became a Capped, Potentially Capped or Constructively Capped Exchange—that is, when Telstra notified access seekers that the exchange building was unavailable for access. An Exemption ESA also ceased to be an Exemption ESA if Telstra ceased to supply the ULLS in that ESA. (The Tribunal's conditions and limitations were incorporated into the FADs.)

The Tribunal's WLR and LCS Orders were specified to expire on 24 August 2014, and the PSTN OA Order was specified to expire on 9 September 2014.

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[20] Capped Exchange—an Exchange Building which Telstra has determined is not available for access by an access seeker for any reason, including an Exchange Building listed by Telstra in the TEBA Capped List [the document published by Telstra that lists each Exchange Building that Telstra regards as a Capped Exchange or a Potentially Capped Exchange] as 'MDF capped' [Main Distribution Frame capped], 'Racks capped' or 'Racks and MDF capped'. Potentially Capped—a Telstra Exchange Building which Telstra has determined may be unavailable for access by an access seeker for any reason including an Exchange Building listed in the TEBA Capped List as 'Potential'. Constructively Capped Exchange—an exchange in respect of which the ACCC has determined that Telstra requires, as a condition of access, that the access seeker undertake works at their own expense which are out-of-the-ordinary works.

[21] In undertaking its calculations for the Exemptions ESAs, the ACCC has found instances where an Exemption ESA would have later failed the Tribunal's conditions.

Content of the Tribunal's PSTN OA CBD Orders

The Tribunal's 2009 PSTN OA CBD Individual Exemption Order affirmed the ACCC's PSTN OA CBD Individual Exemption Order, subject to a variation relating to the expiry date of the ACCC's Order.

The ACCC's PSTN OA CBD Individual Exemption Order exempted Telstra from the SAOs in respect of the supply of the PSTN OA within 17 CBD ESAs, subject to the following conditions and limitations:

- the exemption ceases to apply within an ESA from the date which Telstra first ceases to be an access provider of the ULLS within the relevant ESA, and
- the exemption will not apply in respect of PSTN OA provided under an agreement which is in force as at the commencement date of the Order for so long as that agreement remains in force.[22]

The exemption commenced on 29 October 2009 and was expressed to expire on 9 September 2014, or upon the revocation of either the PSTN OA declaration or the ULLS declaration, whichever occurred first.

Content of the ACCC's Class Orders

Following the Tribunal's decision to vary the ACCC's Individual Exemption Orders, the ACCC held an inquiry into varying the ACCC's class exemptions. After a period of consultation, the ACCC varied certain aspects of its Class Orders, including their geographic scope, so that they were consistent with the Tribunal's Metropolitan Orders and the PSTN OA CBD Orders. In effect, these Orders made the exemption applicable to all access providers, not just Telstra. They were expressed to expire at the same time as the respective Individual Exemption Orders.

2.2 Exemption provisions under the new legislative framework

The *Telecommunication Legislation Amendment (Competition and Consumer Safeguards) Act 2010* (CACS Act) repealed the ordinary individual and ordinary class exemption provisions of the *Competition and Consumer Act 2010* (CCA).[23]

The transitional provisions in the CACS Act state that once an access determination in relation to a declared service commences, a determination made under the ordinary exemption provisions in relation to that service ceases to have effect.[24]

The Exemption Determinations ceased to have effect from 1 January 2011 after the IADs took effect. Under the new regime, the ACCC is able to incorporate provisions in access determinations which provide that any or all of the SAOs are not applicable to a carrier or carriage service provider (CSP). These provisions may be either unconditional or subject to such conditions or limitations as are specified in the determination.[25] An access determination may also restrict or limit the application to a carrier or carriage service provider of any or all of the SAOs.[26]

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22 ACCC's Individual Exemption Order No. 6 of 2008.
23 Repealed sections 152AT (individual exemptions) and 152AS (class exemptions) of the TPA.
24 Items 202 (class exemptions) and 203 (individual exemptions) of the CACS Act.
25 Paragraphs 152BC(3)(h) and (i) of the CCA.
26 Paragraph 152BC(3)(i) of the CCA.

The Explanatory Memorandum to the CACS Bill states that:

> the need for ordinary class exemptions is removed because the ACCC will be able to incorporate provisions in access determinations which remove or limit the obligation of carriers or CSPs to comply with some or all of the standard access obligations (see proposed paragraphs 152BC(3)(h) and (i))[27]
>
> …
>
> at the time when the ACCC is making the first access determination, it will be able to include provisions under the proposed paragraphs 152BC(3)(h) or (i) limiting the application of the standard access obligations. Such provisions may have a similar effect to exemptions.[28]

2.2.1 Exemption provisions in the Interim Access Determinations

The ACCC decided to incorporate and continue the effect of the exemption determinations into the IADs for the WLR, LCS and PSTN OA services. The ACCC considered that continuing the effect of the exemption determinations would promote regulatory consistency in the transition to the new access regime. The ACCC also considered that to do so would be consistent with the Tribunal's assessment that the exemption determinations in relation to those services were in the LTIE. To do otherwise would have effectively led to the 're-regulation' of those services in the exempt ESAs without a detailed consideration of whether 're-regulation' was appropriate.

When it released the IADs, the ACCC noted that it would consult with industry on incorporating the exemption determinations into the FADs for the WLR, LCS and PSTN OA services.

2.2.2 Exemption provisions in the Final Access Determinations

In its final report on the FADs for the WLR, LCS and PSTN OA services, released on 21 July 2011,[29] the ACCC stated that the issue of the future operation of the exemptions required further investigation and consideration. It stated that it would commence a further inquiry to seek further information on whether the exemptions should continue.

The ACCC identified the impact on industry of the roll-out of the National Broadband Network (NBN), and the apparent absence of any substantial alternative wholesale provider of voice-only services over the PSTN, as issues requiring further investigation in terms of the rationale for the exemptions. The ACCC considered that additional information was required in relation to these and a number of other issues concerning the state of the market for the WLR, LCS and PSTN OA services.

In addition, submissions in response to the April 2011 Discussion Paper raised complex and contentious issues. The ACCC considered it appropriate that interested parties be given a chance to respond to these submissions during a further consultation process.

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27 Explanatory Memorandum, Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Bill 2010, p. 170.

28 ibid., p. 215.

29 ACCC, *Inquiry to make final access determinations for the declared fixed line services – Final report*, July 2011. The Final Report is available at: www.accc.gov.au/content/index.phtml/itemId/990530.

Consequently, the ACCC considered that it did not have sufficient information before it, at the time of making the FADs, to determine whether the current WLR, LCS and PSTN OA exemptions should be removed. The ACCC decided to maintain the exemptions as they stood in the IADs to promote regulatory certainty and stability until it has concluded its inquiry into whether the exemption provisions in the FADs should be varied.

2.3 ACCC's calculation of Exemption Exchange Service Areas

The Tribunal's Metropolitan Orders required the ACCC to determine which of the 380 Attachment A ESAs satisfy the conditions in the Orders to become Exemption ESAs by completing a three step calculation process.[30]

The ACCC completed two rounds of exemption calculations prior to the change in the legislative framework, using data as at 31 March 2010 and 30 September 2010. Since the IADs incorporated the effect of the Tribunal's Orders, the ACCC was required to continue to undertake the exemption calculations on a six-monthly basis while the IADs were in force. The ACCC completed a third round of exemption calculations using data as at 31 March 2011.

Since the FADs currently incorporate the effect of the Tribunal's Orders, the ACCC is scheduled to conduct another round of calculations using data as at 30 September 2011.

The results of the first three rounds of calculation are set out below.

First round of exemption calculations (March 2010)

The ACCC calculated that 129 ESAs were Exemption ESAs at that point in time. The list of 129 Exemption ESAs is published on the ACCC's website.[31]

The exemption of these 129 ESAs took effect from 30 December 2010. As the IADs incorporated the effect of the Exemption Determinations, the exemption in relation to those 129 ESAs continued after the IADs commenced on 1 January 2011.

Second round of exemption calculations (September 2010)

The ACCC calculated that a total of 181 ESAs were Exemption ESAs as at 30 September 2010. An additional 52 new ESAs had satisfied the conditions in the Tribunal's Metropolitan Orders to become Exemption ESAs. The 52 new Exemption ESAs are published on the ACCC's website.

The exemption of the 52 new Exemption ESAs took effect from 30 June 2011. As the FADs incorporate the effect of the Exemption Determinations, the exemption in relation to all 181 Exemption ESAs continued after the FADs commenced on 1 July 2011.

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30 The three step calculation process is described in the ACCC's April 2011 Discussion Paper (see section 21.4.1). The Discussion Paper is available at: www.accc.gov.au/content/index.phtml?itemId=990530.

31 A spreadsheet containing all Exemption ESAs is available at: www.accc.gov.au/content/index.phtml/itemId/934407.

Third round of exemption calculations (March 2011)

The ACCC undertook its third round of exemption calculations using data current as at 31 March 2011. The ACCC calculated that a total of 215 ESAs were Exemption ESAs at that date. An additional 34 ESAs had satisfied the conditions in the Tribunal's Metropolitan Orders to become Exemption ESAs. The ACCC published the 34 new Exemption ESAs on its website on 30 June 2011.

The exemption in relation to these additional 34 ESAs are scheduled to commence on 30 December 2011.

3 Assessment framework

This chapter sets out the relevant legislative framework and the criteria the ACCC intends to have regard to when making a decision on whether to vary the final access determinations (FADs) for WLR, LCS and PSTN OA in relation to the exemption provisions. It also outlines the approach the ACCC proposes to take to assist in assessing the state of competition in the relevant markets and whether the exemptions promote the long term interests of end-users.

3.1 Legislative framework

The ACCC must have regard to the criteria specified in subsection 152BCA(1) of the *Competition and Consumer Act 2010* (CCA) when making a decision on whether to vary an FAD. These criteria are:

(a) whether the determination will promote the long term interests of end-users (LTIE) of carriage services or services supplied by means of carriage services

(b) the legitimate business interests of a carrier or carriage service provider (CSP) who supplies, or is capable of supplying, the declared service, and the carrier's or provider's investment in facilities used to supply the declared service

(c) the interests of all persons who have rights to use the declared service

(d) the direct costs of providing access to the declared service

(e) the value to a person of extensions, or enhancement of capability, whose cost is borne by someone else

(f) the operational and technical requirements necessary for the safe and reliable operation of a carriage service, a telecommunications network or a facility

(g) the economically efficient operation of a carriage service, a telecommunications network or a facility.

Subsection 152BCA(2) sets out other matters that the ACCC may take into account in making FADs.

Subsection 152BCA(3) allows the ACCC to take into account any other matters that it thinks are relevant.

The ACCC set out in detail its views on how the legislative criteria should be interpreted in section 3.5 of the April 2011 Discussion Paper.[32] The ACCC considers this interpretation remains appropriate for this inquiry. The ACCC's views on how to interpret the legislative criteria are summarised below.

3.1.1 Paragraph 152BCA(1)(a)

The first criterion for the ACCC to consider when making or varying an FAD is 'whether the determination will promote the long-term interests of end-users of carriage services or of services supplied by means of carriage services'.

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[32] ACCC, *Public inquiry to make final access determinations for the declared fixed line services – Discussion Paper*, April 2011.

In the ACCC's view, particular terms and conditions in an FAD will promote the interests of end-users if they are likely to contribute towards the provision of:

- goods and services at lower prices
- goods and services of a high quality, and/or
- a greater diversity of goods and services.[33]

To consider the likely impact of particular terms and conditions on the LTIE, the CCA requires the ACCC to have regard to the extent to which the terms and conditions are likely to result in:

- promoting competition in markets for carriage services and services supplied by means of carriage services
- achieving any-to-any connectivity, and
- encouraging the economically efficient use of, and economically efficient investment in:
  - the infrastructure by which listed carriage services are supplied, and
  - any other infrastructure by which listed services are, or are likely to become, capable of being supplied.[34]

3.1.2 Paragraph 152BCA(1)(b)

The second criterion requires the ACCC to consider 'the legitimate business interests' of the carrier or CSP.

The ACCC considers that it is in an access provider's legitimate business interests to seek to recover its costs as well as a normal commercial return on investment having regard to the relevant risk involved. However, an access price should not be inflated to recover any profits the access provider (or any other party) may lose in a dependent market as a result of the provision of access.[35]

3.1.3 Paragraph 152BCA(1)(c)

The third criterion requires the ACCC to consider 'the interests of all persons who have the right to use the declared service'. The ACCC considers that this criterion requires it to have regard to the interests of access seekers.

People who have rights to currently use a declared service will generally use that service as an input to supply carriage services, or a service supplied by means of carriage service, to end-users. The access seekers' interests would not be served by higher access prices to declared services, as it would inhibit their ability to compete with the access provider in the provision of retail services.[36] Access seekers' ability to compete for the custom of end-users on the basis of their relative merits could also be

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33 ibid., p. 33.
34 Subsection 152AB(2) of the CCA.
35 ACCC, *Access pricing principles—telecommunications*, July 1997 (1997 Access Pricing Principles), p. 9.
36 ibid.

inhibited if terms and conditions of access favour one or more service providers over others, thereby distorting the competitive process.[37]

The ACCC does not consider that this criterion calls for consideration to be given to the interests of the users of these 'downstream' services as end-users' interests are considered under other criteria.

3.1.4 Paragraph 152BCA(1)(d)

The fourth criterion requires that the ACCC consider 'the direct costs of providing access to the declared service'.

The ACCC considers that the direct costs of providing access to a declared service are those incurred (or caused) by the provision of access and include the incremental costs of providing access.

The ACCC interprets this criterion, and the use of the term 'direct costs', as allowing consideration to be given to a contribution to indirect costs. This is consistent with the Tribunal's approach in an undertaking decision.[38] A contribution to indirect costs can also be supported by other criteria.

However, the criterion does not extend to compensation for loss of any 'monopoly profit' that occurs as a result of increased competition.[39]

3.1.5 Paragraph 152BCA(1)(e)

The fifth criterion requires that the ACCC consider 'the value to a party of extensions, or enhancements of capability, whose cost is borne by someone else'.

In the 1997 Access Pricing Principles, the ACCC stated:

> This criterion requires that if an access seeker enhances the facility to provide the required services, the access provider should not attempt to recover for themselves any costs related to this enhancement. Equally, if the access provider must enhance the facility to provide the service, it is legitimate for the access provider to incorporate some proportion of the cost of doing so in the access price.[40]

3.1.6 Paragraph 152BCA(1)(f)

The sixth criterion requires the ACCC to consider 'the operational and technical requirements necessary for the safe and reliable operation of a carriage service, a telecommunications network or a facility'.

The ACCC considers that this criterion requires that terms of access should not compromise the safety or reliability of carriage services and associated networks or facilities, and that this has direct relevance when specifying technical requirements or standards to be followed.

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37 ibid.

38 Australian Competition Tribunal, *Application by Optus Mobile Pty Limited and Optus Networks Pty Limited* [2006] ACompT 8 at [137].

39 See Explanatory Memorandum for the *Trade Practices Amendment (Telecommunications) Bill 1996*, p. 44: [T]he 'direct' costs of providing access are intended to preclude arguments that the provider should be reimbursed by the third party seeking access for consequential costs which the provider may incur as a result of increased competition in an upstream or downstream market.

40 1997 Access Pricing Principles, p. 11.

3.1.7 Paragraph 152BCA(1)(g)

The final criterion of subsection 152BCA(1) requires the ACCC to consider 'the economically efficient operation of a carriage service, a telecommunications network facility or a facility' when making or varying an FAD.

The ACCC considers that this criterion calls for a consideration of productive, allocative and dynamic efficiency. Further, in applying this criterion, it is relevant to consider the economically efficient operation of:

- retail services provided by access seekers using the access provider's services or by the access provider in competition with those access seekers, and
- the telecommunications networks and infrastructure used to supply these services.[41]

3.1.8 Subsection 152BCA(2)

Subsection 152BCA(2) provides that, in making or varying an FAD that applies to a carrier or CSP who supplies, or is capable of supplying, the declared services, the ACCC may, if the carrier or CSP supplies one or more eligible services,[42] take into account:

- the characteristics of those other eligible services
- the costs associated with those other eligible services
- the revenues associated with those other eligible services, and
- the demand for those other eligible services.

The Explanatory Memorandum states that this provision is intended to ensure that the ACCC, in making (or varying) an FAD, does not consider the declared service in isolation, but also considers other relevant services.[43] The ACCC proposes to consider the costs and revenues associated with other services—whether declared or not declared—that are provided by relevant carriers and CSPs in assessing the impact of the exemptions on the conditions for competition in the exempt ESAs.

3.1.9 Subsection 152BCA(3)

This subsection states the ACCC may take into account any other matters that it thinks are relevant when making or varying an FAD.

Consistent with its approach to determining the price terms included in the FADs, the ACCC proposes that regulatory certainty and consistency will be an important consideration in relation to its assessment of the exemption provisions.

The ACCC also considers that it may have regard to:

- submissions in response to the ACCC's *Public inquiry to make final access determinations for the declared fixed line services: Discussion paper*, April 2011 (April 2011 Discussion Paper)

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41 Australian Competition Tribunal, *Telstra Corporation Limited* [2006] ACompT at [94]–[95].

42 'Eligible service' has the same meaning as in section 152AL of the CCA.

43 Explanatory Memorandum, Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Bill 2010, p. 178.

- additional information requested and received from Telstra and other industry participants in relation to current market conditions and other matters relevant to the impact of the exemptions
- information that Telstra provides to the ACCC under record keeping rules (RKRs), including:
  - the telecommunications regulatory accounting framework RKR (RAF RKR) and
  - the customer access network RKR (CAN RKR) (a summary of which are published at www.accc.gov.au)
- exemption determinations made under the repealed sections 152AS and 152AT of the *Trade Practices Act 1974.*

These considerations and documents do not limit the matters that the ACCC may have regard to when considering whether to vary the FADs in relation to the exemption provisions.

3.2 'Future with and without' test

As noted at section 3.1.1, one of the matters that the ACCC is required to take into account in deciding whether to vary the exemption provisions in the FADs is whether the determination will promote the LTIE of carriage services or of services supplied by means of carriage services. In determining whether a thing will promote the LTIE, regard must be had to the matters in section 152AB(2), including the extent to which the thing is likely to result in the achievement of the objectives of promoting competition in markets for listed services.

Accordingly, the ACCC will consider whether incorporating the effect of the Exemption Determinations in the FADs for the WLR, LCS and PSTN OA services is likely to promote competition in the relevant markets.

To assist it in determining whether varying or revoking the exemption provisions in the FADs will promote the LTIE, the ACCC intends to undertake a 'future with and without' assessment. Under this approach, the conditions for competition in the relevant markets will be assessed and compared 'with the exemptions' and 'without the exemptions'.

The ACCC considers that the concept of promoting competition refers to whether the opportunities and environment for competition will be better with exemptions than they would be absent of the exemptions, rather than to whether competition will in fact 'increase'.[44]

The ACCC will conduct a 'future with' assessment based on a scenario where there is no regulated access to WLR, LCS and PSTN OA in exempt ESAs. The 'future with' exemptions scenario will also involve consideration of the impact of the conditions and limitations incorporated in the Tribunal's Orders (see section 2.1.2).

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[44] See Australian Competition Tribunal, *Sydney International Airport* [2000] ACompT 1 at [106]; Australian Competition Tribunal, *Seven Networks Limited (No 4)* [2004] ACompT 11 at [123]–[124]; and Australian Competition Tribunal, *Application by Chime Communications Pty Ltd (No 2)* [2009] ACompT 2.

The ACCC will conduct a 'future without' assessment based on a scenario where regulated access to WLR, LCS and PSTN OA services supplied by Telstra are available. In doing so, the ACCC will take into account evidence of the competition impacts of the exemptions that took effect from 30 December 2010.

In undertaking the 'future with and without' assessment, the ACCC will identify the relevant markets, that is the markets that are, or would be, affected by the granting of exemptions. It will then assess the state of, and conditions for, competition within those markets. Finally it will assess whether price and service offerings to end-users in those markets are likely to be better with or without the exemptions.

Questions	
3.1	Do interested parties have any comments on the proposed 'future with and without' assessment?
3.2	Should the 'future with' exemptions scenario incorporate the existing conditions and limitations, as set out in the Tribunal's Metropolitan Orders and FADs? If any variation is proposed, alternative conditions or limitations should be specified.

4 Rationale for geographic exemptions

This chapter summarises the reasoning behind the granting of geographic exemptions. Section 4.1 outlines the ladder of investment theory. Section 4.2 summarises the reasons set out by the ACCC and the Australian Competition Tribunal (Tribunal) in their respective decisions to make Exemption Orders. Section 4.3 identifies some concerns that have been raised about the effectiveness of the ladder of investment approach in promoting competition and efficient investment.

The purpose of this chapter is to provide background information to assist interested parties in making submissions on the rationale for granting exemptions. Chapter 6 sets out the ACCC's initial thinking in this regard.

4.1 The ladder of investment theory

A key reason given by Telstra in support of its applications for exemptions from the standard access obligations (SAOs) was the 'ladder of investment' theory.[45] According to this theory, which was developed by Professor Martin Cave:

> Competitors challenge an incumbent by offering services which rely, as their market share rises, less and less on the incumbent's assets and more and more on their own. Thus, competitors progressively build out their networks closer and closer to their customers.[46]

Applying the ladder of investment theory, the regulator initially allows entrants to access a resale service from the incumbent provider at a regulated price. Once resale-based competition is established, and access seekers have begun to invest in their own equipment (for example, digital subscriber line access multiplexers (DSLAMs)), the regulator withdraws regulated access at the resale level. The removal of regulated access may be phased in by gradually increasing the access price of the resale service over several years. Alternatively, the regulator may announce that regulated access to the retail service will no longer be available from some future date—that is, the service will be exempted from regulation (in relevant areas).

Once regulated access has been removed, all access seekers will be encouraged to 'climb' to the next rung of the ladder by investing in their own equipment. Otherwise, they will have to negotiate their own commercial contracts with access providers for the supply of wholesale services. The process of 'climbing' the ladder may continue further if access seekers begin to build their own networks in order to compete with the incumbent.

Professor Cave has recommended that regulators should seek to encourage entry to higher 'rungs' of the ladder, as long as entry is efficient.[47] Professor Cave, and other advocates of the ladder of investment approach, consider that facilities-based

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45 The 'ladder of investment' is sometimes referred to as the 'stepping stone' theory.

46 M Cave, *Statement by Professor Martin Cave of Warwick Business School, University of Warwick, UK for Mallesons Stephen Jaques on infrastructure investment consideration in relation to Telstra's request for LCS and WLR exemptions*, March 2008, p. 1. This statement is available at: http://www.accc.gov.au/content/index.phtml/itemId/801246.

47 M Cave, *Applying the ladder of investment in Australia – Schedule A, Annexure 1 of Telstra's submission in response to Telstra application for fixed line services exemption in Optus HFC network areas*, December 2007, p. 1. This submission is available at: http://www.accc.gov.au/content/index.phtml/itemId/806382.

competition is more sustainable than resale-based competition and leads to greater benefits for end-users.[48]

4.2 Reasons for making the Exemptions Orders

This section summarises the reasoning set out in the ACCC's decision to make Exemption Orders in 2008. It then gives a summary of the Tribunal's reasoning in its decision to set aside the ACCC's Exemption Orders in 2008, as well as the Tribunal's subsequent decision to make Exemption Orders in 2009 after the Full Federal Court had set aside the Tribunal's 2008 decision (see chapter 2 for a history of the exemptions).

4.2.1 ACCC's decision to make exemption orders

In August 2008, the ACCC made Individual Exemption Orders and Class Exemption Orders in respect of the WLR service and the LCS in 248 metropolitan exchange service areas (ESAs) across Australia.[49] In October 2008, the ACCC made an Individual Exemption Order and Class Exemption Order in respect of the PSTN OA service in 248 metropolitan ESAs, and an Individual Exemption Order in respect of the PSTN OA service in 17 CBD ESAs, providing similar reasons to its WLR and LCS decision.[50]

An important factor in the ACCC's decision was its view that facilities-based competition was preferable to resale-based competition. Specifically, the ACCC considered that ULLS-based competition was likely to be in the long term interests of end-users (LTIE) as access seekers could compete on greater dimensions of supply to end-users and would be encouraged to 'dynamically innovate' their services.[51] Because ULLS-based access seekers rely less on competitors' network assets, the ACCC considered that ULLS-based competition would be more sustainable in the long run.

However, consistent with the ladder of investment theory, the ACCC considered that providing regulated access to resale services, in the initial stages of competition, would facilitate access seekers' investments in their own infrastructure (that is, DSLAMs). For example, in respect of the 2006 re-declaration of the LCS, the ACCC stated:

> Continued declaration of the LCS under current market conditions is also likely to encourage efficient investment in infrastructure used to supply local telecommunications (and possibly other) services. It will continue to facilitate market entry and enable service providers to obtain information about demand characteristics and the likely responses of competitors. This

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48 Body of European Regulators for Electronic Communications (BEREC) (formerly European Regulators Group), *Revised ERG common position on the approach to appropriate remedies in the ECNS regulatory framework – Final version*, May 2006, available at: erg.eu.int/doc/meeting/erg_06_33_remedies_common_position_june_06.pdf.

49 ACCC, *Telstra's local carriage service and wholesale line rental exemption applications – Final decision and class exemptions*, August 2008 (ACCC LCS and WLR Decision). The LCS and WLR final decision is available at: http://www.accc.gov.au/content/index.phtml/itemId/801246.

50 ACCC, *Telstra's PSTN originating access exemption application – CBD and metropolitan areas – Final decision and class exemptions*, October 2008 (ACCC PSTN OA Decision). The PSTN OA final decision is available at: http://www.accc.gov.au/content/index.phtml?itemId=800826.

51 ACCC, LCS and WLR Decision, p. 6.

information will reduce the risks associated with infrastructure deployment and thereby promote ULLS and other facilities-based provision.[52]

In reaching its decisions, the ACCC was satisfied that granting exemptions from the SAOs would promote the LTIE. While the ACCC considered that granting exemptions would have little impact on the achievement of the objective of encouraging any-to-any connectivity, it considered that the objectives of promotion of competition and encouraging the efficient use of, and investment in, infrastructure would be promoted.

Promoting competition

An important consideration in the ACCC's assessment of whether granting the exemptions would promote competition was the extent to which access seekers could compete in the downstream market for fixed line voice services via the ULLS. The ACCC was satisfied that the ULLS is capable of providing the same voice functionality as the resale services.

The ACCC considered that increased competition at the wholesale level for line rental, local carriage and PSTN originating access services (equivalent to Telstra's WLR, LCS and PSTN OA services) was likely once access seekers had established the capability to supply fixed line voice services using their own equipment and the ULLS. The ACCC believed that ULLS-based competitors would have an incentive to provide wholesale services to other access seekers either to exploit unused capacity on their networks or to take advantage of economies of scale.[53]

The ACCC also considered that the National Broadband Network (NBN) would not negatively affect the state of competition in the 248 Exemption ESAs as these ESAs already had several ULLS-based competitors. The ACCC believed that this would ensure that 'competitively-priced alternative WLR/LCS-type services are likely to be available in the event of a price rise by Telstra'.[54]

Efficient use of, and investment in, infrastructure

The ACCC was satisfied that granting exemptions in the 248 metropolitan ESAs would encourage efficient use of, and investment in, infrastructure. Efficient use of existing infrastructure would be promoted if ULLS-based access seekers were to use their DSLAM or multi-service access node (MSAN) infrastructure to provide wholesale voice services to other access seekers.

The ACCC noted that the removal of regulated access to the WLR, LCS and PSTN OA services in these ESAs could potentially lead to the exit of some access seekers at the retail level if they were unable to commercially negotiate a contract on reasonable terms. However, the ACCC considered that the benefits to end-users from increased take-up of the ULLS—and associated investments in DSLAMs and MSANs—would outweigh any potential costs from the exit of some access seekers.

The ACCC recognised that the NBN—and the associated uncertainty (in 2008) surrounding its implementation—may impact on access seekers' incentives to invest in infrastructure. However, the ACCC considered that an efficient access seeker

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52 ACCC, *Local Services Review – Final Decision*, July 2006, p. 8. The Local Services Review Final Decision is available at: http://www.accc.gov.au/content/index.phtml?itemId=763380.

53 ACCC, LCS and WLR Decision, p. 6.

54 ibid., p. 7.

would be able to earn a return on its DSLAM investment within two years, which would limit the impact the NBN would have on investment. In addition, the ACCC considered that a 'relatively small amount of additional investment' in infrastructure was likely to be necessary because most of the 248 ESAs already had multiple ULLS-based competitors.[55]

4.2.2 Tribunal's initial decision to set aside the ACCC's exemption orders

Following an application by Chime Communications to have the ACCC's decision reviewed by the Australian Competition Tribunal, the Tribunal published its decision to set aside the ACCC's Exemption Orders on 22 December 2008.[56] In its decision, the Tribunal provided some discussion on the ladder of investment theory.[57]

The Tribunal recognised that greater infrastructure investment would help achieve contestability in the relevant markets, which in turn could reduce the need for regulation. The Tribunal considered that it is the regulator's task to:

- signal to access seekers that the terms and conditions of access will change, meaning that access seekers will need to invest in their own infrastructure and rely less on the incumbent's infrastructure
- ensure that the path to facilities-based competition is feasible and commercially achievable
- understand the market 'in terms of firm numbers, their competitive options, changes in market shares, capacity in the market, the long term-interests of end-users and in developments in technology and its deployment'[58], and
- ensure that at least one of the following four sources of supply remains available to access seekers following deregulation: (1) retaining old supply sources and conditions of supply; (2) entering into contracts with alternative suppliers; (3) investing in their own facilities; or (4) using excess capacity of other providers operating on the next rung of the ladder.[59]

The Tribunal stated that, if it decided to withdraw regulatory protection at a lower rung of the ladder, the regulator would need to be confident that access seekers will have equality of opportunity to compete on the next rung of the ladder. However, the Tribunal considered that equality of opportunity may not occur for two reasons, both related to barriers to entry.

First, the incumbent may decide not to provide the previously regulated service, thus forcing new access seekers to enter at a higher rung of the ladder. If this occurred, it may deny potential entrants the opportunity to enter and learn about the market through a simpler form of entry, such as reselling, prior to deciding to invest.

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55 ibid., p. 77.
56 Australian Competition Tribunal, *Application by Chime Communications Pty Ltd* [2008] ACompT 4.
57 ibid., at [44] to [53].
58 ibid., at [49].
59 ibid., at [52].

Second, the incumbent access provider may continue to provide the previously regulated service but at a higher price than the previous regulated price. Any such price rise would increase the cost of initial entry at a lower rung of the ladder.

If these barriers to entry were substantial, a potential source of future competition could be lost.

In addition, the Tribunal criticised the ACCC's decision to use a numerical 'rule of thumb'[60] to determine which ESAs should become exempt ESAs, noting that this was a static indicator of the market that failed to consider market trends or dynamics. The Tribunal considered that entry by ULLS-based access seekers did not necessarily demonstrate that the incumbent was constrained by competition from those access seekers. In order to be 'competitively significant', according to the Tribunal, an entrant needed to be both willing to confront the incumbent—through offering end users better services and/or lower prices—and able to supply any customers it wins from the incumbent.[61]

4.2.3 Tribunal's decision to grant exemption orders

Telstra sought judicial review of the Tribunal's decision in the Full Federal Court and on 11 March 2009 the Court set aside the Tribunal's decision and remitted the matter back to the Tribunal for further hearing. The Tribunal reconsidered the matter and published its WLR and LCS decision on 27 May 2009.

In making its decision, the Tribunal recognised that deregulating resale services before sufficient entry had occurred at a higher rung could be harmful. It stated that:

> The withdrawal of a mandated service, if undertaken before competitors individually or collectively have established the critical mass at the next rung of the ladder that gives them the ability to compete effectively with the incumbent, would also have very adverse effects on the promotion of competition.[62]

The Tribunal noted that the cost of a DSLAM was unlikely to be a 'prohibitive barrier to competitively significant entry'.[63] However, it considered that while some barriers to entry had been identified in Telstra's application and the ACCC's decision—such as sunk costs, scale economies, product differentiation and switching costs—other barriers to entry, such as end-user inertia, had not been fully investigated.

Accordingly, the Tribunal deemed that it was necessary to impose conditions and limitations prior to deregulation to ensure that there were enough ULLS-based access seekers willing and able to supply WLR- and LCS-type services.[64] The imposition of

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60 The ACCC granted exemptions in ESAs where: there were 14,000 or more addressable SIOs (i.e., the number of customers that can potentially be served from the exchange building(s) in the ESA) and/or there were four or more ULLS-based competitors (including Telstra).

61 Australian Competition Tribunal, *Application by Chime Communications Pty Ltd* [2008] ACompT 4, at [68].

62 Australian Competition Tribunal, *Application by Chime Communications Pty Ltd (No 2)* [2009] ACompT 2, at [154].

63 ibid., at [144].

64 The Tribunal states that 'In the Tribunal's view, it is also necessary by an appropriate condition to ensure that…: (a) there are a sufficient number of access seekers who can supply services through the ULLS to provide a competitive restraint on the incumbent (Telstra) in its supply of services, including the supply of WLR/LCS; and (b) their position in the market (ie in each nominated ESA) is sufficiently consolidated so that it is likely that if deregulation is ordered, the entrants will

conditions and limitations would help to ensure that access seekers would climb to the next rung of the ladder—and therefore constrain the actions of Telstra—rather than exiting the market.

On the objective of efficient use of, and investment in, infrastructure, the Tribunal considered that:

> …if competition is promoted then, in a case such as this, efficient investment is encouraged. That is to say, promoting competition in an ESA will, ipso facto, encourage efficient investment by encouraging access seekers to invest in ULLS-based DSLAM infrastructure. It is only to this extent that the Tribunal goes along with the principles of Professor Cave's ladder of investment hypothesis.[65]

4.3 Concerns about the ladder of investment theory and geographic exemptions

The rationale for geographic exemptions, and the ladder of investment theory in particular, has been examined by a number of commentators. Some commentators have raised concerns about the effectiveness of the ladder of investment in promoting competition and investment.

Xavier and Ypsilanti consider that assessing the benefits of geographic deregulation—that is, assessing if deregulation has promoted competition and efficient use of, and investment in, infrastructure—requires assessment of 'the nature and extent of sustainable competitive conditions'.[66] They note that an increase in the number of competitors in a market is not sufficient to ensure that end-users have benefited.

Bourreau et al consider that late entry—that is, after the withdrawal of regulated access—into a market may be challenging. By attempting to enter after the withdrawal of regulated access, potential entrants may find it more difficult to enter onto the first rung of the ladder, either because the resale service may no longer be supplied at the regulated price or it may not be supplied at all. In the latter case, if the potential entrant decides to enter, they will have to enter at a higher rung, before having had an opportunity to learn about the market or build a reputation.[67]

However, Professor Cave considers that regulatory intervention may not be necessary once there are several competitors operating at the wholesale level of the market.[68] This view is based on an assumption that access seekers with spare capacity on their own infrastructure (DSLAMs or MSANs) may be willing to use this spare capacity to supply resale services to other access seekers. Professor Cave has stated that:

> …later entrants will have the opportunity to seek access either from the initially dominant firm or from earlier entrants, which may have excess capacity which they are eager to sell. Indeed

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undertake the necessary investment, so that ULLS-based supply will constrain the actions of Telstra'. ibid., at [157].

65 Australian Competition Tribunal, *Application by Chime Communications Pty Ltd (No 2)* [2009] ACompT 2, at [165].

66 P Xavier and D Ypsilanti, 'Geographically segmented regulation for telecommunications: lessons from experience', *The Journal of Policy, Regulation and Strategy for Telecommunications, Information and Media*, vol. 13 (2), 2011, p. 12.

67 M Bourreau, P Doğan and M Mananti, 'A critical review of the "ladder of investment" approach', *Telecommunications Policy*, vol. 34, 2010, pp. 683–696.

68 M Cave, 'Encouraging infrastructure competition via the ladder of investment', *Telecommunications Policy*, vol. 30, 2006, pp. 223–237.

competition may even have become 'effective' in the relevant market, precluding any sort of regulatory intervention.[69]

However, doubts have been raised about whether a wholesale market will emerge following deregulation, and, if it does, whether this market will be competitive.[70] Several commentators suggest that the incentives for access seekers (that have their own infrastructure) to supply resale services to new entrants may be weak.[71] In particular, vertically integrated access seekers are unlikely to offer resale services when they expect the wholesale profits from resale services to be less than the retail profits lost to the resellers (of the wholesale services purchased from those vertically integrated access seekers). The resellers will be competing for retail customers with those access seekers.

Bourreau et al note that a potential entrant may be willing to enter the market by investing in their own infrastructure if they expect to make large profits at the retail level.[72]

These issues, and the ACCC's initial views on the effectiveness of the ladder of investment in promoting competition and investment in the exempt areas, are discussed further in chapter 6. Questions on which the ACCC is seeking submissions are set out in that chapter.

Questions	
4.1	How much weight, if any, should the ACCC give to the ladder of investment theory in its 'with and without' assessment?
4.2	If the ladder of investment theory is accepted, how long should regulated access to the lowest 'rung' of the ladder (that is, resale services) be provided?

69 ibid., p. 233.

70 See Bourreau et al., 2010, op. cit., p. 692.

71 See studies cited in Bourreau et al.: J Ordover and G Shafer, 'Wholesale access in multi-firm markets: when is it profitable to supply a competitor?', *International Journal of Industrial Organization*, vol. 25 (5), 2007, pp. 1026–1045; D Brito and P Pereira, *Access to bottleneck inputs under oligopoly: a prisoners' dilemma?*, Portuguese Competition Authority Working Paper, 2008, available at: http://www.concorrencia.pt/download/WP16_Bottleneck_Feb_2008.pdf; M Bourreau, J Hombert, J Pouyet and N Schutz, *Upstream competition between vertically integrated firms*, Ecole Polytechnique Centre National De La Recherche Scientifique Paper, 2009, available at: http://halshs.archives-ouvertes.fr/docs/00/44/01/26/PDF/2009-54.pdf.

72 Bourreau et al., op. cit., p. 692.

5 Information on effects of geographic exemptions

This chapter examines current information on the effects of geographic exemptions on the state of competition in fixed line service markets.

Section 5.1 sets out current information on the state of competition in fixed voice and bundled voice and broadband markets in Australia. Section 5.2 examines the limited evidence currently available on overseas jurisdictions' experiences in implementing geographic exemptions. Section 5.3 summarises the exemptions-related submissions received during the ACCC's consultation on making final access determinations (FADs) for the declared fixed line services.

5.1 The state of competition in the relevant markets

In its 2008 market analysis, the ACCC had regard to both the level of competition in the markets and the potential for the development of competition in a market.[73]

In relation to the actual level of competition in a market, this section provides information on:

- market concentration
- the number of ULLS competitors in an exchange service area (ESA), and
- the number of full-facilities based competitors in an ESA.

In relation to the potential for development of competition in a market, this section provides information on:

- the amount of spare capacity in access seeker digital subscriber line access multiplexers (DSLAMs)
- the sunk costs involved in DSLAM/multi-service access node (MSAN) deployment, and
- the risk of asset stranding.

5.1.1 Market concentration

Telstra remains the dominant provider of fixed voice services over its copper network (that is, its customer access network (CAN)). In 2010–11, 74 per cent of all end-users supplied with fixed voice services over the CAN were Telstra's retail customers.[74] However, Telstra's share of the retail fixed voice market fell four percentage points from its 2009–10 share of 78 per cent.[75]

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73 ACCC, *Telstra's local carriage service and wholesale line rental exemption applications – Final decision and class exemptions*, August 2008 (ACCC LCS and WLR Decision), p. 68; ACCC, *Telstra's PSTN originating access exemption application – CBD and metropolitan areas – Final decision and class exemptions*, October 2008 (ACCC PSTN OA Decision), p. 88.

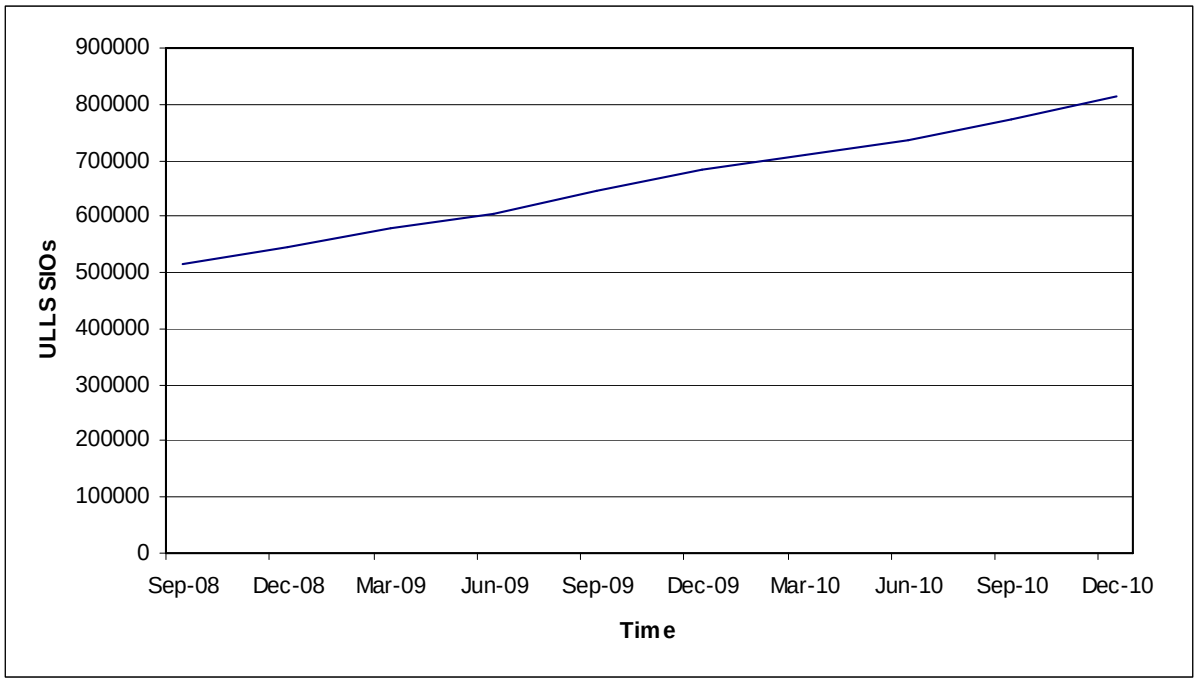
74 Telstra, *Full year 2011 financial results – CEO/CFO analyst briefing presentation*, p. 23, available at: http://www.telstra.com.au/abouttelstra/download/document/tls789-fy-2011-financial-results-ceo-cfo-analyst-briefing-presentation.pdf.

75 ACCC, *Public inquiry to make final access determinations for the declared fixed line services – Discussion paper*, April 2011, p. 230.

In the 380 Attachment A ESAs, the ACCC estimated Telstra's share of retail fixed voice services in operation (SIOs) as 72 per cent in March 2011, down one percentage point from September 2010. It is difficult to determine an accurate percentage of retail fixed voice SIOs in the 17 central business district (CBD) ESAs due to the presence of competing networks over which services are provided (that is, networks other than Telstra's CAN).

The percentage of lines controlled by ULLS access seekers in the nominated ESAs provides an indication of these access seekers' market share. The increasing trend of ULLS SIOs within the Attachment A ESAs is shown by the following graph.

Figure 5.1: ULLS SIOs in the Attachment A ESAs



Source: Telstra CAN RKR data, September 2008 to December 2010.

As at March 2011, the percentage of lines controlled by ULLS access seekers in the Attachment A ESAs was around 16 per cent.[76] This increased to 17 per cent in June 2011.

ULLS-based access seekers now acquire more ULLS SIOs than WLR SIOs in the Attachment A ESAs. The ratio of ULLS SIOs to WLR SIOs, in respect of ULLS-based access seekers, in the Attachment A ESAs in March 2011 was approximately 3 ULLS SIOs for one WLR SIO.[77]

5.1.2 Number of ULLS-based competitors in an ESA

The number of SIOs controlled by ULLS access seekers has grown since June 2008. By June 2011, ULLS access seekers controlled approximately 10 per cent of SIOs nationally.

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76 ACCC, *CAN RKR Snapshot*, March 2011, available at: http://www.accc.gov.au/content/index.phtml/itemId/853523.

77 ACCC, *CAN RKR Snapshot*, March 2011; Telstra, WLR SIO data, March 2011.

The number of Attachment A ESAs with less than eight ULLS-based competitors decreased between December 2010 and June 2011, while the number of ESAs with more than eight competitors increased in that time.

Number of ULLS-based competitors in each exchange								
Date	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8+**
Dec 10	40	41	50	70	69	55	34	21
Mar 11	38	41	50	69	70	52	39	17
Jun 11	35	35	51	63	66	49	28	29

In March 2011, the average number of ULLS-based competitors in the Attachment A ESAs was 4.3. By June 2011, this figure had reached 4.7.

In March 2011, the exempt CBD ESAs had on average 7.6 ULLS-based competitors per exchange, with at least six ULLS-based competitors in each exchange. This had increased to 9.3 competitors by June 2011, with at least seven ULLS-based competitors in each exchange.

5.1.3 Full facilities-based competition

In the April 2011 Discussion Paper, the ACCC noted that Optus' hybrid-fibre coaxial (HFC) network is available in parts of the 380 Attachment A ESAs.[78] The ACCC considered that retail fixed voice services over a HFC network were likely to be substitutable for similar services provided over Telstra's copper network (CAN), although there may be switching costs for end-users due to the different technology of the HFC.

The ACCC also noted that the Tribunal stated there were six competing fibre networks within the CBD ESAs at the time of making its exemption orders.[79]

5.1.4 Sunk costs of DSLAM/MSAN deployment

There are various costs associated with entry into the retail fixed voice market via ULLS-based competition. These costs may include the deployment of DSLAMs or MSANs, co-location, backhaul transmission and various IT and retailing costs.

On the basis of the most recent information before the ACCC (obtained for the purpose of the 2008 exemption applications), the ACCC estimated that the fixed costs of the DSLAM/MSAN infrastructure were in the order of $12,000–$14,000 per DSLAM. This included the DSLAM/MSAN sub-rack and racks, the DSLAM itself, alarm and power distribution units, power cabling to the racks, and signal and cabling to the racks.[80]

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78 ACCC, *Public inquiry to make final access determinations for the declared fixed line services – Discussion paper*, April 2011, p. 233.

79 Australian Competition Tribunal, *Application by AAPT Limited* [2009] ACompT 5, 24 August 2009, at [63].

80 ACCC, LCS and WLR Decision, August 2008, p. 73; ACCC, PSTN OA Decision, October 2008, p. 90.

The ACCC considered that an efficient access seeker was likely to make a return on a DSLAM investment within two years of deployment.[81] The potential asset life of a DSLAM (or MSAN) was likely to be greater than two years.

The ACCC is seeking information on the other costs of entry into the retail fixed voice market via ULLS-based competition.

5.1.5 Spare DSLAM capacity

In March 2011, ULLS-based access seekers' installed spare capacity was greater than, or equal to, total ULLS-based access seekers' WLR SIOs in 86.8 per cent of Attachment A ESAs. Access seeker installed spare capacity was greater than, or equal to, 40 per cent of their aggregate WLR SIOs in 96.6 per cent of Attachment A ESAs.[82] If ULLS-based access seekers' installed spare capacity is measured against total WLR SIOs, that is WLR services purchased by both ULLS-based and resale-based access seekers, the relevant comparisons are 43 per cent and 84 per cent respectively.

This suggests that access seekers consider it possible to obtain additional market share from Telstra and other competitors (that is, not just transfer their existing WLR customers to a ULLS-based service).

Between September 2010 and March 2011, access seekers' DSLAM spare capacity increased by approximately 11 per cent in the Attachment A ESAs. Actual ULLS SIOs in Attachment A ESAs also increased by 10 per cent over the same period. These trends imply that access seekers have continued to invest in additional spare capacity.

5.1.6 Risk of asset stranding

Continuing growth in DSLAM investments suggests that the risk of asset stranding has not been a significant deterrent to infrastructure investments to support ULLS-based competition. Between December 2010 and June 2011, 154 DSLAMs were installed in the Attachment A ESAs, representing a 9.4 per cent increase on the December 2010 total. The average number of ULLS access seekers per ESA also increased by approximately 9 per cent to 5.9 over March to June 2011.[83]

In March 2010, Internode announced it had installed new ADSL2+ equipment at seven exchanges in Tasmania. It had previously offered customers with ADSL2+ services using Telstra wholesale equipment. Internode noted that its new infrastructure would enable it to transfer 3,000 customers from slower wholesale broadband systems to its dedicated high-speed broadband services over two months.[84] Internode stated that the customer migration made good business sense as 'Internode's own ADSL2+ equipment gives our customers better performance and it costs us less to provide these services'.[85]

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81 ibid, p. 74; ibid, p. 91.
82 ACCC, *CAN RKR Snapshot*, June 2011.
83 ibid.
84 Internode media release, *Extreme ADSL2+ presence boosted in Tasmania*, 25 March 2010, available at http://www.internode.on.net/news/2010/03/171.php.
85 ibid.

More recently, in March 2011, Westnet announced that it had invested in new DSLAM infrastructure in Geraldton as a result of a new fibre link built between Perth and Geraldton.[86] Westnet noted that it had 'installed extra spare capacity to allow new customers to join up and enjoy the choice of both new plans and …customer service'.[87]

Investments in ULLS-based provision of fixed voice services prior to a fibre upgrade may allow access seekers to build their reputation and customer base through the ability to provide differentiated products. There is information to suggest that industry participants are bolstering their customer reputation in preparation for the National Broadband Network (NBN) roll-out. In relation to Internode's March 2010 DSLAM investments in Tasmania, an Internode representative stated in an interview with Computer World Australia:

> We intend to keep deploying more ADSL2+ DSLAMs around Australia in parallel to being an active participant in the ongoing development of the NBN. … We don't see these as conflicting things. Our customers need the best service we can build for them today, as well as being able to access the best service tomorrow (via the NBN) as and when that becomes an option for various geographic regions around Australia over time.[88]

Ongoing DSLAM investment suggests that, despite uncertainty surrounding the NBN, access seekers intend to continue to invest in DSLAM/MSAN equipment where they consider it efficient to do so. The ACCC notes that some of these DSLAM investments may have been in response to the Regional Backbone Blackspots Program.[89]

5.1.7 Information request

On 18 August 2011, the ACCC sent a request for information to Telstra and a number of access seekers.[90] The information request asked the carriers to provide information to assist the ACCC in assessing the effect on competition from the geographic exemptions, including details on:

- the use of ULLS and the carrier's own DSLAM/MSAN infrastructure or resale services to provide retail services
- any resale services purchased by the carrier (including location, price, supply conditions, and rebates), and
- any resale services supplied to other carriers (including location, price, supply conditions, and rebates).

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86 Westnet Media Release, *A new Westnet broadband network for Geraldton. There's nothing faster*, 11 March 2011, available at: http://www.westnet.com.au/press/.

87 ibid.

88 Computerworld, *Internode continues ADSL2+ roll-out despite NBN commitment*, 25 March 2010, available at: http://www.computerworld.com.au/article/340925/internode_continues_adsl2_roll-out_despite_nbn_commitment/.

89 Department of Broadband, Communications and the Digital Economy, *National Broadband Network: Regional Backbone Blackspots Program*, 22 August 2011, available at: www.dbcde.gov.au/funding_and_programs/national_broadband_network/national_broadband_network_Regional_Backbone_Blackspots_Program.

90 ACCC, *Fixed line services geographic exemptions — request for market information*, 18 August 2011, available at: http://www.accc.gov.au/content/index.phtml?itemId=990530.

5.2 International experience

Since 2007, several countries have implemented geographically segmented regulation in telecommunications markets. These include Austria, Canada, Finland, Portugal, Spain, the United Kingdom and the United States.

A recent study by Xavier and Ypsilanti examined international experiences in implementing geographic exemptions.[91] The authors identified significant implementation difficulties and costs because the processes used to determine whether to grant exemptions were complex and contentious and led to 'more uncertainty and less stability and predictability in the regulatory regime'.[92] Geographic segmentation was found to place increased regulatory burdens on regulators and industry and to reduce regulatory transparency.

Xavier and Ypsilanti stated that there is considerable uncertainty about how to ensure that deregulation (in exempt areas) will promote competition and the more efficient use of, and investment in, infrastructure. They stated that:

> It is not enough to demonstrate that the number of competitors has increased or even that competition has increased. To ensure that the end-user has benefited, the requirement is for thorough comprehensive assessment of sustainably competitive conditions and persuasive evidence tabled that outcomes are in the consumer interest.[93]

They highlighted that '[t]he impact on consumers is a critical consideration' and that the effects on the long term interests of end-users remains 'uncertain'.[94] They stated that:

> The usual indicators used to monitor effects on consumers include lower prices, improved quality of service, enhanced technology and greater choice (including effective choice empowered by ease of switching from one operator to another). Would end-users in markets deemed competitive or non-competitive benefit from geographic separation of markets?[95]

Xavier and Ypsilanti concluded that there are 'considerable uncertainties about the extent to which this would occur'.[96]

As noted by Xavier and Ypsilanti, there is little evidence available to assess whether granting exemptions in a range of countries has been in the long-term interests of end-users (LTIE). The ACCC is not aware of any international studies that have assessed the impacts of exemptions on competition, the efficient use of and investment in infrastructure, and the LTIE.

5.3 Summary of submissions

Submissions to the April 2011 Discussion Paper on making FADs for the declared fixed line services[97] included extensive comments on geographic exemptions and

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91 P Xavier and D Ypsilanti, 'Geographically segmented regulation for telecommunications: lessons from experience', *The Journal of Policy, Regulation and Strategy for Telecommunications, Information and Media*, vol. 13 (2), 2011, pp. 3–18. The paper draws on the OECD paper *Geographically Segmented Regulation for Telecommunications*, OECD Digital Economy Papers, no. 173, 2010.

92 ibid., p. 13.

93 ibid., p. 14.

94 ibid., p. 15.

95 ibid.

96 ibid.

raised complex and contentious issues. This section summarises the key issues raised in those submissions.

The ACCC will have regard to those submissions in assessing whether to vary, revoke or maintain the exemption provisions in the FADs.

Inclusion of exemptions in the final access determinations

Telstra submitted that the effect of the Exemption Determinations should be incorporated into the FADs. Telstra stated that the Tribunal had ruled that the long term interests of end-users (LTIE) were promoted by the exemptions.[98] Telstra also submitted that the Tribunal had accepted that competition would likely be promoted in an environment where market participants had incentives to 'climb the ladder of investment'.[99]

Telstra submitted that the ACCC's exemptions calculations—to determine which ESAs meet the three criteria outlined in the Tribunal's Metropolitan Orders to become Exemption ESAs—should be extended to all ESAs, instead of limiting the calculations to the 380 Attachment A ESAs. That is, all ESAs should potentially become exempt.[100]

Herbert Geer submitted that the PSTN OA CBD Orders should be incorporated into the PSTN OA FAD,[101] but opposed the inclusion of the Tribunal's Metropolitan Orders in the FADs.[102]

AAPT, Frontier Economics, Macquarie Telecom and Optus submitted that the effect of the Exemption Determinations should not be incorporated into the FADs. Optus, AAPT, and Macquarie Telecom submitted that maintaining the exemptions were actually, or likely to be, detrimental to competition or not in the LTIE.

Competition in the relevant markets

Telstra submitted that it agrees with the Tribunal's assessment of the promotion of competition. It stated that ULLS-based competition is an effective substitute and more likely to achieve a better price-product-service package for end-users than resale-based competition.

Telstra submitted further that it has incentives to maintain a viable resale business and to respond to competitive dynamics. It stated that it competes with other wholesale providers in relation to bundled services and provides competitive offers for those services. Telstra submitted that it has rebalanced its prices to obtain a more efficient pricing structure by setting lower variable charges (such as call charges) and recovering a higher component of fixed costs through higher fixed charges (such as the WLR charge). It stated therefore that it is not appropriate to consider the charge for WLR in isolation to prices for other services provided as part of a bundle. In

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97 ACCC, *Public inquiry to make final access determinations for the declared fixed line services – Discussion paper*, April 2011.

98 Telstra, *Public inquiry to make Final Access Determinations for the declared fixed line services – Part C of Telstra's response to the Commission's discussion paper,* 3 June 2011, p. 3.

99 ibid., p. 4.

100 ibid., p. 3.

101 Herbert Geer, *Submission by Herbert Geer on behalf of Adam Internet Pty Ltd, Aussie Broadband Pty Ltd, iiNet Limited, and Internode Pty Ltd,* June 2011, p. 20.

102 ibid., p. 25.

addition, Telstra submitted that its commercial pricing structure was negotiated and agreed with almost all wholesale customers.[103]

Telstra submitted that competition in relevant ESAs is broadening and deepening, as demonstrated by the increase in the number of Attachment A ESAs where Telstra's ULLS-based competitors have a market share above 30 per cent.[104]

Telstra submitted that ULLS-based competitors' investment in spare capacity indicates that they consider it possible to win additional market share from Telstra or other access seekers, rather than merely transferring existing WLR services onto a ULLS-based service. Telstra stated that the growth in ULLS SIOs is not reducing access seekers' spare capacity, and that access seekers consider it efficient to continue rolling out DSLAMs and investing in spare capacity in Attachment A ESAs.[105]

The ACCC received submissions from a number of access seekers stating that the exemptions are detrimental to competition. Optus, AAPT, Herbert Geer and Macquarie Telecom submitted that the exemptions will allow Telstra to raise the price of resale services in the exempt areas without constraint.[106]

AAPT submitted that it is common knowledge that Telstra is using its market power to raise the WLR price in exemption areas above the price in regulated areas, with no cost-based justification for such differentiation. It also submitted that the exemptions allow Telstra to force access seekers to commit to whole-of-business deals for WLR (in exempt and non-exempt areas) at a blended price higher than the regulated price for WLR in non-exempt areas.[107]

Maddocks (on behalf of Macquarie Telecom) submitted that Telstra is already raising WLR prices above efficient levels in exempt areas.[108] Frontier Economics (on behalf of Macquarie Telecom) stated that ULLS-based entry to provide fixed voice services is uneconomic, given the scale of existing entry and customer distribution in the existing exempt areas, and it is uneconomic for ULLS-based competitors to supply wholesale or retail voice only services.[109]

Optus submitted that a number of factors would preclude the possibility of any positive impact of competition from the exemptions:

- The exemptions will allow Telstra to raise prices without constraint in exempt exchanges.
- There is a lack of alternative suppliers of the relevant wholesale product able to place a real competitive constraint upon Telstra in the wholesale market.

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103 Telstra submission, Part C, p. 14.
104 ibid., p. 6.
105 ibid., p. 9.
106 Optus, *Optus Submission in response to the ACCC's discussion paper: Public Inquiry to make Final Access Determinations for the Declared Fixed Line Services*, 3 June 2011, p. 33; AAPT, *Submission to Public Inquiry – Final Access Determinations – Fixed Line Services*, 3 June 2011, p. 8; Herbert Geer submission, p. 25; Macquarie Telecom, *Submission to Public Inquiry – Final Access Determinations – Fixed Line Services*, p. 7.
107 AAPT submission, pp. 8–10.
108 Maddocks, *Exemption determinations – final access determinations – submission on behalf of Macquarie Telecom*, June 2011, p. 12.
109 Frontier Economics, *Geographic exemptions for WLR, LCS and PSTN OA services – a report prepared for Macquarie Telecom*, June 2011, p. 13.

- Significant sectors of the relevant markets will suffer disproportionate damage to competition, including the corporate sector, preselected long distance voice customers and customers on pair gain systems.
- The exemptions are unlikely to cause any significant changes in the use of or investment in DSLAM infrastructure.[110]

Optus submitted that Telstra is charging a higher price for WLR services in exempt areas than in non-exempt areas.[111]

Development of wholesale competition in resale services

The ACCC received a number of submissions stating that an alternative to the WLR service supplied by Telstra had not developed. Several access seekers submitted either that they could not, or would not, offer a viable alternative to the WLR service, or could not obtain a viable alternative to the WLR service, for a number of reasons including:

- Self supply may be uneconomical.
- Infrastructure may be deployed solely for access seekers' own use in providing services to their own retail customers.
- ULLS-based access seekers do not have the capability to provide 'complex services' to business grade customers.
- Approximately seven per cent of SIOs within the ACCC's exemption footprint cannot be supplied by ULLS-based competitors due to deployment of pair gain systems.
- Moving up the ladder of investment by deploying MSAN infrastructure was based on a strategy of providing both voice and data services. Providing a PSTN service would require additional investment.
- Access seekers have no plans to provide a stand alone voice service as distinct from bundled voice and broadband services.

Impact of the NBN roll-out on investment incentives

Telstra submitted that the NBN roll-out does not adversely affect the rationale for exemptions. It stated that access seekers' arguments regarding asset stranding due to the NBN are 'unfounded and incorrect'.[112] Telstra stated that the CAN record keeping rule (RKR) data and behaviour of various access seekers show no evidence that the NBN is deterring either new investment in competitive DSLAM infrastructure or the use of existing investments.[113]

Telstra submitted that the roll-out of, and migration to, the NBN will not leave DSLAM investments stranded. It stated that there are still incentives for access seekers to continue copper-based infrastructure investment—in the transition to the NBN, access seekers will be looking to grow their customer bases and differentiate their product offerings in a manner that can be sustained during and after the

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110 Optus submission, p. 33.
111 ibid., p. 34.
112 Telstra submission, Part C, p. 10.
113 ibid., p. 12.

migration to NBN.[114] Telstra also submitted that investments in enhanced switching capabilities remain efficient as these investments will allow access seekers to build their reputations and customer bases through differentiated products as well as facilitating the provision of value-added services on the NBN. Telstra stated that undertaking these investments will ensure that access seekers are well-placed to compete for customers when the NBN is rolled out.[115]

Telstra submitted that access seekers wishing to deliver voice services using the ULLS could either invest in switching equipment, transmission infrastructure and the capability to interconnect with other carriers' networks, or provide VoIP in combination with current generation soft switches. Soft switches and transmission infrastructure will be required to connect to the NBN.[116]

AAPT, Herbert Geer, Macquarie Telecom and Optus submitted that the NBN significantly affects the rationale for exemptions.

AAPT stated that the NBN is now a reality that further discourages and freezes investment.[117]

Herbert Geer submitted that switching to the ULLS will not make it easier to switch to the NBN.[118] Herbert Geer stated that the ULLS is a copper based service and there are no benefits to end-users from continuing to force access seekers to invest in copper infrastructure. Herbert Geer stated further that, where Telstra has raised prices in exempt areas above those in regulated areas, access seekers are unlikely to make further investments given the deployment of the NBN.[119]

Macquarie Telecom submitted that the NBN roll-out is a barrier to further ULLS-based investment. It stated that it is not in access seekers' interests to make investments in infrastructure that will become obsolete given uncertainty about receiving a long term return on their investments.[120] Macquarie Telecom submitted that the ACCC has incorrectly assumed that new entrants may recover DSLAM investments in two years.

Macquarie Telecom also raised questions about the efficiency of encouraging duplication of investments in sunk assets (DSLAMs). Frontier Economics submitted that it may be more efficient to encourage greater use of Telstra's existing assets, which may be used to supply wholesale voice services at very low marginal social cost.[121]

Optus submitted that the NBN affects investment decisions by reducing the time period in which access seekers can receive positive cashflows from any investment in DSLAMs. Optus stated that the NBN makes the economies of scale of DSLAM investment less appealing. It also submitted that the significant uncertainty around the

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114 Telstra submission, Part C, p. 11.
115 ibid., p. 13.
116 Telstra submission, Schedule C2, p. 3.
117 AAPT public submission, p. 8.
118 Herbert Geer public submission, p. 22.
119 Herbert Geer public submission, p. 27.
120 Maddocks submission on behalf of Macquarie Telecom, p. 7.
121 Frontier Economics submission on behalf of Macquarie Telecom, p. 21.

timing of the NBN roll-out means that access seekers cannot be certain that the fibre roll-out will not affect an ESA until the later stages of the NBN roll-out.[122]

iiNet submitted that it will continue to selectively roll-out regional data DSLAMs (with no voice component) where it can identify a positive business case, taking into account factors such as NBN deployment timetables.[123]

[122] Optus submission, p. 42.
[123] Herbert Geer public submission, Annexure 2, p. 1.

6 ACCC's preliminary views on the state of competition

This chapter sets out the ACCC's initial thinking on the key factors influencing the state of competition in the exempt exchange service areas (Exemption ESAs). In reaching its preliminary view, the ACCC has:

- reviewed recent research on the rationale for granting exemptions in certain geographic areas (see chapter 4)
- considered currently available evidence on the competition impacts of exemptions in Australia and overseas (see chapter 5)
- had regard to the views and evidence presented in previous submissions on exemptions (see chapter 5), and
- taken into account recent ACCC approaches to competition analysis in other industries (discussed in this chapter).

The ACCC has set out its initial thinking in this issues paper to highlight the competition issues the ACCC considers relevant to assessing whether to vary, revoke or maintain the exemption provisions included in the final access determinations (FADs). The ACCC considers that doing so will assist industry and other interested parties in making submissions that address these issues. However, as noted in chapter 3, the ACCC will have regard to all of the legislative criteria in making its decision and submissions are sought on all relevant matters.

A one-page outline of the ACCC's preliminary views is provided on the next page. These views are explained in more detail in the rest of this chapter, along with questions identifying the matters on which the ACCC is seeking submissions.

Section 6.1 outlines the ACCC's initial analysis of the factors considered likely to have a significant impact on the state of wholesale competition. Section 6.2 identifies potential impacts on wholesale markets from the roll-out of the National Broadband Network (NBN). Section 6.3 relates the initial analysis of wholesale market conditions to implications for competition at the retail level and for the price, quality and range of services likely to be available to end-users. Section 6.4 sets out the ACCC's preliminary view on the relevant markets.

Outline of the ACCC's preliminary views

- Including provisions in the FADs exempting carriers or carriage service providers from the Standard Access Obligations (SAOs) must be consistent with the legislative criteria. Among other matters, the ACCC must consider whether they would promote the long-term interests of end-users.
- Exempting certain ESAs from regulation of resale services rests, in part, on the argument that, once access seekers have made sufficient infrastructure investments in an ESA, the conditions for wholesale competition will exist. The incumbent access provider's scope for exercising market power in that ESA will be restrained by the availability of alternative sources of the services required to provide retail fixed line services to end-users. If so, it is argued that regulation of resale services will no longer be necessary.
- Alternative sources of wholesale services may include: (i) self-supply through access seekers' own infrastructure, combined with the purchase of (regulated) ULLS; (ii) continued purchase of resale services from the incumbent access provider; and (iii) actual and/or potential purchase of resale services from access seekers that have invested in their own infrastructure and have spare capacity.
- The development of (actual or potential) competition in supplying resale services relies on access seekers with their own infrastructure being willing and able to offer resale services to other access seekers.
- Vertically integrated access seekers may not, however, have incentives to offer resale services to access seekers that compete with them in retail markets. Vertically integrated access seekers may not be willing to compete vigorously to supply resale services.
- Alternatively, an access seeker with its own infrastructure may make a commercial decision to pursue a wholesale-only business strategy by purchasing ULLS and selling resale services to other access seekers in competition with the incumbent provider of resale services (Telstra). The ACCC is not aware of this strategy having been adopted in supplying fixed line services over the copper network (the CAN).
- The roll-out of the National Broadband Network (NBN), and the creation of a new wholesale-only service provider (NBN Co), may have altered the incentives for access seekers with their own infrastructure to offer resale services over the copper network. It may, for example, have changed the commercial viability of pursuing a wholesale-only business strategy over the copper network.
- Even if wholesale competition has not developed, and is unlikely to develop, in the exempt ESAs, the exemptions may benefit end-users by encouraging access seekers to invest in infrastructure for self-supply. End-users may benefit from greater choice and/or improved service as a result of infrastructure investments by access seekers. If the costs of investing in infrastructure do not lead to any increase in the cost of supplying retail services for a given service quality (that is, the investments are efficient), end-users are likely to be better off.
- Alternatively, the option for access seekers to invest in their own infrastructure, and avoid purchasing resale services, may be sufficient to limit the scope for resale service providers to charge prices in the exempt areas that significantly exceed the costs of supply. This constraint on wholesale prices may, in turn, benefit end-users through lower retail prices, greater product choice and/or improved service.
- However, if the exemptions were to result in an increase in the prices of resale services in exempt areas, barriers to entry to those areas would likely increase. In the longer term, new entry may be discouraged, with potential negative implications for competition in the supply of retail services. In addition, limited wholesale competition in the exempt areas may have implications for the amount of competition likely to develop on the NBN. By removing the 'stepping stone' option provided by the availability of competitively priced resale services, smaller retail service providers (including new entrants) may face significant obstacles to establishing a market presence in the transition to the NBN.

6.1 Wholesale market competition

De-regulating access to resale services in the exempt areas is based on three main assumptions:

- Infrastructure-based competition (using digital subscriber line access multiplexers (DSLAMs)/multi-service access nodes (MSANs) or other infrastructure operated by access seekers) at the retail level provides greater long term benefits for end-users than pure resale-based competition, where these infrastructure investments are efficient.
- Investments by access seekers in their own infrastructure provide the basis for the development of competition at the wholesale level. Once there has been sufficient infrastructure investment in an ESA, access seekers that have invested in their own infrastructure will have spare capacity that can be used to provide resale services to other access seekers.
- Access seekers that have invested in their own infrastructure and have spare capacity will be willing and able to offer resale services in competition with Telstra. Wholesale competition will restrain the exercise of market power by resale service providers and regulation of those services will no longer be necessary.

These assumptions are considered in turn below.

Assumption 1: The long term interests of end-users are best met by infrastructure-based competition, where such investment is efficient.

As noted in chapter 4 (section 4.2.1), the ACCC previously considered that infrastructure-based competition allows access seekers to compete on greater dimensions of supply to end-users and to 'dynamically innovate' their services. In addition, access seekers with their own infrastructure will have greater control over the quality of service provided to their retail customers.

The ACCC remains of the view that, in relation to the provision of services over the existing copper network, infrastructure investment (for example, in DSLAMs/MSANs) provides greater benefits to end-users in terms of product offerings and service quality than pure resale-based competition.[124]

This should not be taken to imply that resale-based competition does not contribute to the long term interests of end-users (LTIE). Recent research conducted for the Australian Communications and Media Authority (ACMA)[125] found a high level of dissatisfaction with the quality of customer service provided by retail service providers:

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[124] In relation to the National Broadband Network (NBN), the ACCC recognises that opportunities for infrastructure-based competition will be limited and that retail service providers will compete for customers through other dimensions of service quality. The ACCC considers that providing non-discriminatory access to the basic telecommunications network (operated by a wholesale-only supplier) will promote retail competition and the long-term interests of end-users.

[125] Australian Communications and Media Authority, *Community research into telecommunications customer service experiences and associated behaviours*, June 2011, available at: http://engage.acma.gov.au/reconnecting/wp-content/uploads/2011/06/Telco-customer-service-report_Roy-Morgan_FINAL.doc.

> Across all modes of contact, 'being able to resolve issues in a reasonable time', 'follow-through' and 'targeted personalised attention' were important areas in which CSPs [carriage service providers] underperform.[126]

The survey results indicated a dissatisfaction rate of up to 45 per cent of customers. Customer service quality was second only to perceived 'value for money' in driving customer attitudes and behaviours such as repeat purchase and overall satisfaction with their retail service.[127] Customer service is a key service dimension on which resellers are able to compete with other retailers.

In addition, the ACCC considers that the availability of resale products can provide a 'stepping stone' for new entrants to build their customer bases, reputations and market knowledge prior to investing in their own infrastructure. New entrants (and the potential for new entry) provide an additional source of competition and innovation at the retail level. In the ACCC's view, greater competition and innovation by new entrants will promote the LTIE.

The Body of European Regulators for Electronic Communications (BEREC) has highlighted the role of access to resale services in facilitating entry, before new entrants invest in their own infrastructure. New entrants will purchase resale services while they build their customer base and reputation and improve their knowledge of market conditions (including demand and technology). The BEREC has stated:

> Due to the high risk involved in investments with a high share of sunk costs, alternative operators [that is, new entrants] are likely to follow a step-by-step approach, continuously expanding their customer base and infrastructure investments. The initial availability of the incumbent's infrastructure at low prices will make it easier for alternative operators to enter the market and develop a customer base. Equipped with a customer base, uncertainty is considerably reduced and the operator may then be ready to take further investments.[128]

Further, the availability of competitively priced voice-only resale services is likely to support broader competition from access seekers that have adopted a business model of predominantly supplying data-based services, such as broadband. The availability of voice-only resale services will allow these access seekers to provide the full range of services required by their customers.

For example, such an access seeker might have invested in its own infrastructure (such as a fibre network in the CBD area or DSLAMs without voice capability). It could use this infrastructure (possibly in conjunction with the purchase of ULLS) to supply the head office of a retail business customer with broadband and VoIP services. That customer may also require voice-only services at its regional offices and prefer to purchase an integrated business solution from a single supplier. Using voice-only resale services would allow the access seeker to provide the voice-only services required by the customer as an integrated solution. Without access to competitively priced voice-only resale services, the access seeker may not be able to meet all of the customer's requirements.

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126 ibid., p. 3.

127 ibid. Customer service quality accounted for 37 per cent of loyalty while 'value for money' accounted for 40 per cent.

128 Body of European Regulators for Electronic Communications (BEREC) (formerly European Regulators Group), *Revised ERG Common Position on the approach to appropriate remedies in the new regulatory framework – final version*, May 2006, p. 81, available at: erg.eu.int/doc/meeting/erg_06_33_remedies_common_position_june_06.pdf.

Facilitating a broad range of carriers (including new entrants) in competing effectively at the retail level may promote the long term interests of end-users. However, the significance of new entry and competition by data-based service providers will need to be tested against actual market evidence, not only at a theoretical level.

Questions	
6.1	How does investing in DSLAMs/MSANs (in conjunction with purchasing the ULLS) allow access seekers to better serve their retail customers? Please give details.
6.2	On what service dimensions do resale-based access seekers compete in attracting and retaining retail customers?
6.3	How important is the availability of (wholesale) resale services for new and potential new retail service providers in entering retail markets? How important is the availability of those services for established retail service providers? Please give reasons, supported, if possible, by examples.
6.4	How important are integrated product offerings, that is, the supply of a range of telecommunications services by a single supplier, to end-users? How significant is the availability of voice-only resale services in allowing access seekers to supply integrated product offerings? Please identify the types of customers that are most likely to require integrated product offerings and give detail about the services they require.
6.5	What market information is available, or could be made available, to assist the ACCC in assessing the importance of competitively-priced voice-only resale services in promoting competition at the wholesale and/or resale level?

Assumption 2: Investments by access seekers in their own infrastructure provide the conditions for wholesale competition to develop.

As noted in chapter 4 (section 4.2.3), the Australian Competition Tribunal (Tribunal) imposed conditions and limitations in its Orders to ensure there would be enough ULLS-based access seekers (that is, access seekers with their own DSLAMs/MSANs) able to supply resale services. Actual or potential competition from these access seekers would constrain the exercise of market power in wholesale markets for resale services.

Evidence on market conditions in the exempt ESAs show that the number of ULLS lines, the number of ULLS-based competitors, and the amount of DSLAM spare capacity in those ESAs have all been increasing (see section 5.1). In 87 per cent of the exempt ESAs (as at March 2011), there was already enough ULLS spare capacity to absorb ULLS-based access seekers' total WLR services in operation (SIOs) in that ESA. There was enough ULLS spare capacity to absorb all access seekers' total WLR SIOs in 43 per cent of exempt ESAs in March 2011 (see section 5.1.5).

In the ACCC's preliminary view, this evidence suggests that some of the conditions required for wholesale competition to develop in supplying resale services are present in many exempt ESAs.

Questions	
6.6	Does the existence of spare DSLAM/MSAN capacity in an ESA create the potential for resale services to be offered by access seekers with their own infrastructure?
6.7	Are there any other conditions required to create the conditions for wholesale competition to develop?

Assumption 3: Access seekers with spare infrastructure capacity will be willing and able to offer resale services in competition with Telstra.

While the existence of spare DSLAM/MSAN capacity in exempt ESAs may be a necessary condition for wholesale competition to develop, it may not be a sufficient condition. Access seekers must not only have spare infrastructure capacity, they must be willing and able to use that capacity to supply resale services to other access seekers. Further, they must be willing and able to compete effectively with Telstra for resale business.

As discussed in chapter 4, the ladder of investment theory assumes that access seekers will want to take advantage of economies of scale and make use of their spare capacity by offering resale services to other access seekers. In this way, wholesale competition (or the potential for competition) will develop. Actual (or potential) competition will prevent the incumbent access provider from exercising market power such that regulation of resale services will no longer be necessary. This theory underpins the geographic exemptions for the WLR, LCS and PSTN OA services.

Professor Cave has stated that, following the de-regulation of access to resale services:

> … entrants will have the opportunity to seek access either from the initially dominant firm or from earlier entrants [that is, access seekers with their own infrastructure investments], which may have excess capacity which they are eager to sell.[129]

In its final decisions on the exemptions for WLR and LCS and for PSTN OA, the ACCC considered that, in the event of a price rise by Telstra, competitive wholesale line rental, local carriage, and PSTN originating access services would be available from access seekers that had made DSLAM investments.[130]

However, access seekers invest in infrastructure like DSLAMs and MSANs for two reasons. The first is for self-supply and the second is to supply resale services to other access seekers.

Self-supply of infrastructure services

Access seekers may invest in DSLAMs/MSANs and other infrastructure to gain greater control over the quality of retail service and range of retail products they can offer by supplying themselves with infrastructure services (self-supply). Another reason for choosing to self-supply may be that the wholesale market for resale

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[129] M Cave, 'Encouraging infrastructure competition via the ladder of investment', *Telecommunications Policy*, vol. 30, 2006, p. 233.

[130] ACCC, LCS and WLR Decision, p. 77; ACCC, PSTN OA Decision, p. 10.

services is not competitive. In both cases, infrastructure investment is likely to improve an access seeker's ability to compete in retail markets.

Strong retail competition may place a competitive constraint on the wholesale supply of services. If resale service providers were to increase their prices significantly above supply costs, or reduce service quality or choice significantly, resale-based competitors would be likely to invest in their own infrastructure in order to remain competitive in retail markets (or exit the market).

The potential for resale-based competitors to invest in their own infrastructure will place a constraint on behaviour in the wholesale market. The strength of this constraint on the exercise of market power in supplying resale services will depend on the relative costs and risks associated with self-supply compared to purchasing resale services.

The capacity of potential entrants and the smaller resale-based access seekers to self-supply in the event of uncompetitive supply of resale services may be limited by the costs of investing in their own infrastructure. The cost of installing DSLAMs/MSANs, and other required infrastructure (such as switching equipment), may form a significant barrier to entry for some potential entrants and the smaller resale-based access seekers. In addition, the expected payback period, and the risks associated with making sunk infrastructure investments, is likely to depend on a number of factors such as market size and level of churn, the access seeker's (or potential entrants') market presence and reputation, and their knowledge of market conditions.

The ACCC considers that resale-based competitors are likely to weigh up the costs and risks of investing in infrastructure against costs and risks associated with purchasing resale services. The costs of resale services will include the prices charged for those services and any additional costs required to convert those services into retail products (excluding costs, such as marketing and call centre provision, that are incurred in supplying the retail market regardless of whether a ULLS-based or resale-based business model is adopted). Risks associated with resale-based supply include risks of poor service quality, cessation of supply or significant price increase (including removal of previously provided rebates or other discounts).

Resale-based suppliers are also likely to compare the expected returns from infrastructure investment and purchasing resale services. As noted previously, infrastructure investment permits greater product differentiation and greater control over service quality, which can enable the provision of higher quality retail services and great customer choice. In addition, if a ULLS-based competitor can supply retail services more efficiently than by purchasing resale services, it may be able to offer services at a lower price or alternatively offer a higher quality service with no increase in price. These improvements in price/quality service offerings in the retail market may increase the retail returns of ULLS-based competitors compared to resale-based competitors.

The ACCC does not currently have sufficient information to enable it to assess the strength of the constraint imposed on wholesale suppliers by competition at the retail level.

There is limited and conflicting evidence from overseas studies. For example, theoretical research by Inderst and Valletti led them to conclude that 'indirect constraints are sometimes more powerful than direct constraints'.[131]. Other researchers have stated that the strength of the constraint exerted on operators at the wholesale level by competition at the retail level will be greater:

- the larger the price elasticity of demand at the retail level
- the more of a wholesale price change is passed on to the retail level, and
- the larger is the ratio of the wholesale price to the retail price.[132]

There is some evidence that the price elasticity of retail demand for communications services may not be high. The Tribunal has stated that end-users appear to be relatively unwilling to switch providers, which may suggest that other factors such as 'ignorance [of other providers' offers], customer loyalty, and concern about acquiring services from small players' may be more important factors than price.[133]

Supply of resale services by vertically integrated access seekers

The willingness of access seekers to supply resale services to other access seekers rests on access seekers having incentives to make use of spare capacity or obtain economies of scale.

However, in the case of vertically integrated access seekers, the benefits from making use of spare capacity or obtaining economies of scale would be weighed against potential costs from providing resale services to other access seekers that compete with them at the retail level.

Bourreau et al. question whether a competitive wholesale market can be expected to develop when access seekers want to purchase resale services from vertically integrated wholesale access providers in order to compete with them in providing retail services.[134] They conclude that, 'even if a wholesale market emerges, chances are high that it will not be competitive'.[135] This results from the fact that: 'serving the wholesale market generates additional wholesale revenues, but at the opportunity cost of lower retail revenues.'[136]

Ordover and Shafer similarly find that vertically integrated access seekers will not offer resale services to other access seekers that are expected to 'cannibalise' their retail customers such that wholesale profits would not compensate for lower retail profits.[137]

The ACCC's preliminary view is that vertically integrated access seekers have incentives to favour their own retail businesses, particularly when the profitability of retail supply exceeds that of wholesale supply. This implies that vertically integrated

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131 R Inderst and T Valletti, 'Indirect versus direct constraints in markets with vertical integration', *The Scandinavian Journal of Economics*, vol. 111, no. 3, 2009, p. 527.

132 A Schwarz, 'Wholesale market definition in telecommunications: the issue of wholesale broadband access', *Telecommunications Policy*, vol. 31, 2007, p. 263.

133 Australian Competition Tribunal, *Application by Chime Communications Pty Ltd (No 2)* [2009] ACompT 2, at [149].

134 Bourreau et al., 2010, op cit.

135 ibid., p. 692.

136 ibid.

137 J Ordover and G Shafer, 'Wholesale access in multi-firm markets: When is it profitable to supply a competitor?', *International Journal of Industrial Organization*, vol. 25 (5), 2007, pp. 1026–1045.

access seekers may choose not to supply resale services, even when they have spare capacity. Alternatively, they may impose terms and conditions on supplying resale services to ensure that any expected loss of retail profits as a result of supplying a retail competitor will be at least offset by the profits earned from supplying resale services.

Concerns about the willingness of vertically integrated access seekers to provide competitive resale services to other access seekers mirror long-standing and widespread concerns about the impact of Telstra's vertical integration on the potential for competition to develop in markets for fixed line communications. A vertically integrated access seeker may have similar incentives to discriminate where providing equivalent access to infrastructure services might risk profit contribution, that is:

- when a materially higher return is available on retail supply than from providing resale services, and
- effective competition in retail markets would result in the erosion of excess profits.

Vertically integrated access seekers may have the incentive and ability to engage in both price and non-price discrimination in favour of their own retail business units. These access seekers may judge that ceasing, or declining, to supply competitively-priced resale services to a resale-based competitor (or potential competitor) would allow them to obtain at least some of the retail customers currently (or potentially) served by that competitor.

Currently available evidence appears to support this view. Competition in wholesale voice-only markets has not developed to a significant extent since the exemptions were granted by the Tribunal in 2009 (although the ACCC notes that the first round of exemptions only took effect from 30 December 2010). In addition, the ACCC understands that some access seekers supplying resale voice-only services may impose some form of minimum purchase requirement on resale purchasers (but not on their own retail customers). Minimum purchase conditions on wholesale supply could significantly increase the cost of resale voice-only services and reduce the ability of the reseller to compete in supplying retail customers.

It appears that wholesale competition may be stronger in the market for bundled voice and broadband resale services. A number of access seekers currently provide these services in competition with Telstra. The extent to which bundled voice and broadband services are substitutable for voice-only services, at the retail and wholesale level, is not clear. While retail customers are increasingly buying bundled services (see section 6.4.1 below), the ACCC understands that some corporate and business customers require voice-only services.

While alternative networks, such as Optus' hybrid fibre-coaxial (HFC) network, currently exist in CBD and some metropolitan areas, the operators of these networks do not generally offer wholesale access to their network or offer wholesale fixed voice services to access seekers.

Submissions received to date suggest that wholesale markets are not competitive. For example, access seekers have suggested that Telstra will not reduce its WLR prices in the exempt areas to reflect the WLR price in the FAD. In addition, some access seekers have informed the ACCC that Telstra has withdrawn rebates previously

provided in non-exempt areas, to offset the reduction in the regulated WLR price. There have also been complaints about Telstra's wholesale ADSL pricing.[138]

Supply of resale services by wholesale-only access seekers

There is a potential alternative to resale service supply by vertically integrated access seekers. At least one access seeker with substantial infrastructure investments could decide to become a wholesale-only supplier in competition to the incumbent access provider, Telstra. A wholesale-only resale service supplier would not have the same incentives as vertically integrated access seekers/providers to discriminate as they would not be competing with the resellers in retail markets.

The ACCC is not aware of any access seekers having adopted, or planning to adopt, a wholesale-only business strategy on the copper network.

[138] See, for example, the ACCC's proposed inquiry into declaration of wholesale ADSL. ACCC, *Proposed declaration inquiry regarding wholesale ADSL – open letter*, October 2010, available at: http://www.accc.gov.au/content/index.phtml?itemId=952604.

Questions	
6.8	What are the main reasons for access seekers' decisions to invest in their own DSLAM/MSAN infrastructure? What factors are taken into account in making the decision to invest? In your answer, please identify any factors considered to form barriers to investing and indicate how significant they are to the decision to invest.
6.9	What is the cost of installing a DSLAM/MSAN? What are the costs of operating a DSLAM/MSAN once it is installed? What are the costs of expanding the capacity of a DSLAM/MSAN by adding ports? by adding voice cards? What associated infrastructure and/or equipment (such as switching equipment) is required and what are the costs of that infrastructure?
6.10	What are the costs of supplying resale services (wholesale line rental, local carriage and PSTN originating access services)? Please give details of the cost components. What other factors are taken into account in making the decision to supply resale services?
6.11	What, if any, technical limitations exist on the supply of resale services? Please give details.
6.12	What conditions are placed on the supply of resale services? Please give details. Why are these conditions imposed? If they are imposed for technical reasons, please give details.
6.13	How many wholesale suppliers of resale services operate in the exempt areas? Please provide numbers for each of the exempt ESAs, if possible, and name the suppliers of resale services.
6.14	How do the prices of, and conditions that are placed on, the supply of resale services, vary among different suppliers? Please give details.
6.15	How do the incentives for supplying voice-only resale services differ from those for supplying bundled voice and broadband resale services? Please give details.
6.16	To what extent do bundled voice and broadband services substitute for voice-only services? Please comment in relation to both retail and wholesale markets.
6.17	How competitive are wholesale markets for resale products, including voice-only and bundled voice and broadband services? Please give reasons.
6.18	How viable is a wholesale-only business model—where an access seeker supplies only resale services to other access seekers and does not supply retail services—as a business strategy? Please explain.

6.2 Impact of NBN on wholesale market competition

In the ACCC's 2008 decision on granting exemptions, the ACCC considered that the (then) potential roll-out of an NBN was unlikely to create a significant risk of asset stranding, and therefore on infrastructure investment incentives.

In reaching this view, the ACCC considered evidence that the payback period on a DSLAM investment was relatively short (and shorter than the expected NBN roll-out period). It also noted that the majority of exempt ESAs already had four or more ULLS-based competitors (including Telstra). As a result, any additional investment required as a result of the exemptions was likely to be limited to a relatively small number of ESAs and by a relatively small number of access seekers.

While these considerations remain relevant, the ACCC considers that the NBN roll-out may impact on access seekers' incentives to supply resale services in a range of ways, two of which are as follows.

First, in the transition to the NBN, vertically integrated access seekers' may have greater incentives to build and strengthen their reputations and customer bases. This would ensure that they are in a stronger position to take advantage of economies of scale and new opportunities to provide services to retail customers. These incentives may, in turn, reduce their incentives to offer resale services to resellers that are currently competing to build their own reputations and retail customer bases on the existing copper network.

Second, the roll-out of the NBN may have changed the viability of a wholesale-only business strategy on the copper network. It is unclear whether operating as a wholesale-only provider on the copper network would confer any advantages in an NBN context, for example in terms of becoming a wholesale aggregator on the NBN.

Questions	
6.19	How has the roll-out of the NBN changed the business strategies adopted by access seekers? For access seekers, please explain how your business strategy is affected by the NBN.
6.20	How commercially viable is a wholesale-only business strategy expected to be on the NBN? How does such a strategy compare with an alternative strategy of supplying only retail services on the NBN? What factors will affect the commercial viability of a wholesale-only business strategy on the NBN?

6.3 Retail market competition

Even if there is evidence gathered in this inquiry that suggests that wholesale competition has not developed, and is unlikely to develop, it does not necessarily follow that the exemptions are not in the LTIE.

The exemptions may have encouraged, or supported, infrastructure investment for self-supply. End-users may benefit from these investments through greater choice and/or improved service. For there to be a net benefit to end-users, this benefit would have to outweigh potentially higher prices consequent on the exercise of market power in supplying resale services in exempt areas. If not, end-users may be worse off.

Further, the option to self-supply may limit the capacity of Telstra (and other resale service providers) to exercise market power at the retail level in the exempt areas. In this case, self-supply of infrastructure services by access seekers may generate benefits for end-users from lower prices, greater choice and/or improved service.

However, if scope exists for the exercise of market power in supplying resale services in exempt areas, barriers to new entry to those areas are likely to increase. In the longer term, new entry may be discouraged, with potential negative implications for competition in the supply of retail services. The Tribunal has drawn attention to the potential increase in barriers to entry if resale services are not available at regulated rates or on competitive terms and conditions. In this case, a potential entrant would have to:

> … enter the market at a higher rung [on the ladder of investment], which in turn requires it to invest in its own capital equipment or to negotiate access to the equipment of other firms

already operating on the higher rung, without having had the opportunity to learn about the market through a less complicated form of initial entry.[139]

In addition, limited wholesale competition in the exempt areas may have implications for the amount of competition likely to develop on the NBN. By removing the 'stepping stone' option provided by the availability of competitively priced resale services, smaller retail service providers (including new entrants) may face significant obstacles to establishing a market presence in the transition to the NBN.

Questions	
6.21	How have the exemptions affected the prices, product range or quality of services received by retail customers? Has the overall impact been positive or negative for end-users? Please distinguish between customer groups if the impacts have varied.
6.22	How important are barriers to new entry in the exempt areas compared with new entry in the non-exempt areas? Please identify the barriers that exist. How will these entry barriers affect the level of competition likely to develop on the NBN?

6.4 Relevant markets

To assist in determining the impact of the exemption provisions in the FADs, the ACCC needs to identify the relevant markets and assess the likely effect of the exemptions on the promotion of competition in each market.

Substitution is the key to market definition.[140] The approach to market definition set out in the *ACCC's Merger Guidelines 2008*[141] focuses on two key dimensions of substitution: the product dimension and the geographic dimension. The ACCC focuses on the foreseeable future when considering the likely product and geographic dimensions of a market.

The ACCC is of the view that Part XIC of the *Competition and Consumer Act 2010* (CCA) does not require it to precisely define the scope of the relevant markets for the purpose of assessing the impact of the exemption provisions. Further, the ACCC considers that precise definition of the relevant markets is not critical when the fundamental issues are common across relevant markets. The ACCC will re-consider the relevant market definitions in response to submissions, taking into account the information and feedback it receives in relation to the fundamental issues identified in sections 6.1–6.3.

6.4.1 ACCC's preliminary view on the relevant product markets

The ACCC proposes that the relevant markets for assessing the impacts of the exemption provisions on the conditions for competition can be broadly described as follows.

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139 Australian Competition Tribunal, *Application by Chime Communications Pty Ltd* [2008] ACompT 4, at [53].

140 See s 4E of the CCA. Substitution may involve technical and economic substitutability. Economic substitutes will have positive cross-price elasticities; that is, when the price of a product or service increases, demand for its substitutes will also increase.

141 ACCC, *Merger guidelines*, November 2008, available at: http://www.accc.gov.au/content/index.phtml/itemId/809866.

Retail voice markets

Retail markets are defined as being for the supply of a suite of fixed voice services to end-users. These voice services include basic access, local calls, national and international long distance calls and fixed to mobile calls,[142] but exclude carrier-grade and application layer VoIP (voice over internet protocol) and mobile services. End-users generally acquire a suite of fixed voice services from one provider.

The ACCC is considering whether end-users perceive VoIP and traditional PSTN voice services as economic and technical substitutes. The ACCC considers the following factors may be relevant:

- VoIP services do not generally facilitate connection to emergency services numbers and they are not generally available during power outages. Customers who need, or want, a guaranteed connection may also have to purchase an alternative service, such as a mobile voice service, and this would increase the relative cost of a VoIP service compared to a PSTN voice service.
- The quality of VoIP services currently offered on the copper network can vary greatly between VoIP service providers and current VoIP services often provide lower quality of service than PSTN voice services.[143] The relative price/quality trade-off may reduce the substitutability of VoIP services with PSTN voice services for some customers.
- Partly offsetting these limitations, VoIP can provide end users with greater functionality than PSTN voice services through the additional features like 'simultaneous ring',[144] 'sequential ring'[145] and 'music on hold'. These features, if valued by the customer, may improve the relative price/quality trade-off between VoIP services and PSTN voice services for some customers.

In regard to mobile voice services, the ACCC considers that a majority of end-users currently tend to view mobile and fixed services as complementary services, rather than substitutes. However, in some circumstances and for some consumers, mobile voice services may be seen as good substitutes for fixed line voice services. An ACMA report found that older people (over the age of 61) appear to have less interest in using mobile voice services than younger people (aged between 18-30), who were 'more likely' to engage in fixed to mobile substitution.[146] Many consumers subscribe to both fixed and mobile voice services, rather than switch to mobile services exclusively.[147] The availability of untimed local calls on fixed line voice services may

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142 ACCC LCS and WLR Decision, p. 42; ACCC PSTN OA Decision, p. 57.

143 Note that broadband providers that operate their own network can have some control over the transport of their VoIP traffic and therefore have some control over the quality of their service. See ACMA, *The Australian VoIP Market—the supply and take-up of VoIP in Australia*, December 2007, p. 19, available at: http://www.acma.gov.au/WEB/STANDARD/pc=PC_310901.

144 This refers to being able to have multiple phones ring simultaneously when calls are received on one phone number. For example, calls to an end-user's desk phone could also ring their mobile phone, in case the end-user was not at their desk.

145 Being able to telephone up to three locations (in addition to the base location) in the sequence an end user supplies for a specified number of rings.

146 ACMA, *Telecommunications today report 5: consumer preference and choice in adopting services*, April 2008, pp. 7-9.

147 ACMA, *Communications report 2009–10 series: Report 2 – Take-up and use of voice services by Australian consumers*, November 2010, available at: www.acma.gov.au/WEB/STANDARD..PC/pc=PC_312356.

reduce the relative price of fixed line voice services compared to mobile voice services for some customers (that is, customers who tend to make many lengthy local calls).

Some access seekers have previously submitted that some corporate and government end-users require different grades of functionality, or 'complex services',[148] not required by residential end-users (see section 5.3). They have further submitted that retail voice markets comprise separate markets for residential services and corporate and government services. Telstra sets differentiated residential and business charges for voice services and offers a higher quality of service to business customers (such as a faster response time for faults). Further information is required to assess whether supplying residential services and corporate and government services form separate markets.

Wholesale voice markets

Wholesale voice markets comprise the supply of fixed voice services to access seekers via two means.

First, access seekers can purchase resale services (WLR, LCS, PSTN OA or equivalent services) to on-sell to their retail customers. The ACCC considers that wholesale line rental, local carriage, and PSTN originating access services are typically purchased as a bundled wholesale voice product.

Second, access seekers can supply retail voice services to end-users by purchasing ULLS in conjunction with the use of their own infrastructure (a digital subscriber line access multiplexer (DSLAM) or multi-service access node (MSAN) installed in a Telstra exchange). This is termed 'access-based supply'. The ACCC considers that the ULLS can provide equivalent voice services to those provided by Telstra and resellers of Telstra's WLR and LCS services (or line rental and local carriage services purchased from alternative suppliers).

The ACCC considers that the line sharing service (LSS) is not substitutable for the wholesale line rental, local carriage, and PSTN originating access services from either the demand or supply side perspectives. By definition, if a service provider is using LSS, the end customer must already have a PSTN-based voice service.

Some access seekers have previously submitted that the complex services required by corporate and government end-users (see the section on 'retail voice markets' above) cannot be provided using access seekers' own infrastructure (see section 5.3). They have further submitted that as only Telstra is able to supply those complex services, wholesale voice markets should be differentiated between supplying residential end-users and supplying corporate and government end-users. Further information is required to assess whether: (i) access seekers are unable to supply these services for technical reasons; (ii) the capability to supply these services could be achieved with some additional investment; or (iii) access seekers have made a commercial decision not to supply these services.

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[148] 'Complex services' include ISDN, call diversion number only, virtual private networks, line hunt, fax duet, securitel and huntgroups. Complex services are not declared and are provided by Telstra, and in some cases by Optus, on a commercial basis.

Retail bundled voice and broadband markets

Retail markets for the supply of bundled voice and broadband services over copper (xDSL), hybrid fibre-coaxial (HFC), or possibly wireless technologies provide a substitute for voice-only services.

The number of 'fixed voice only' SIOs has been declining steadily since September 2007 (when reporting requirements commenced under the Telstra Customer Access Network Record Keeping Rules (CAN RKR)). Many consumers now acquire both voice and broadband services, often in a bundle from a single service provider. Recent ACMA consumer survey data supports that a large proportion of Australian household consumers (52 per cent) have opted for bundled communications services in their home, most commonly plans that bundle fixed line voice services with internet services (45 per cent).[149] ACMA has noted that:

> In response to these market developments [increasing customer usage of alternatives to traditional voice services] and the decline in both PSTN connections and revenue, communications service providers are continuing to differentiate offerings by bundling fixed-line services with other communications services and by introducing innovative consumer access devices.[150]

The ACCC considers that broadband services delivered via HFC (as well as other types of infrastructure) with similar pricing, quality and functionality to DSL services will be substitutable from the perspective of most consumers. Optus currently offers a number of standalone and bundled broadband packages in the retail market over its HFC network.[151]

The number of consumers using wireless technology has been growing rapidly. The Australian Bureau of Statistics (ABS) found that there were 4.2 million mobile wireless broadband (dongle, datacard and USB modem based services) subscribers at December 2010 (compared to 4.5 million ADSL subscribers).[152] Mobile wireless broadband subscribers increased by 49 per cent over the 12 months to December 2010. Mobile phone handset internet (including smartphones) subscribers meanwhile increased by 21 per cent to 8.2 million over the six months to December 2010.

These increases were not at the expense of fixed line services, as ADSL subscriptions also increased, albeit at a slower rate of growth of seven per cent, over the 12 months to December 2010.

A recent ACMA report suggested that for some end-users, mobile wireless broadband may be a substitute for fixed-line internet services, such as ADSL and Naked DSL.[153]

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149 ACMA, *Communications Report 2009–10 series, Report 2 – Take-up and use of voice services by Australian consumers*, November 2010, p. 26, available at: www.acma.gov.au/WEB/STANDARD..PC/pc=PC_312356.

150 ACMA, *Communications Report 2009–10 series, Report 4 – Changing business models in the Australian communications and media sectors: Challenges and response strategies*, January 2011, pp. 7–8, available at: http://www.acma.gov.au/WEB/STANDARD..PC/pc=PC_312356.

151 See Optus cable plans at: http://personal.optus.com.au/web/ocaportal.portal?_nfpb=true&_pageLabel=Template_woRHS&FP=/personal/bundles/broadbandhomephonem&site=personal.

152 ABS 8153.0, *Internet Activity Australia*, December 2010, available at: www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/.

153 ACMA, *The internet service market and Australians in the online environment*, July 2011, available at: acma.gov.au/WEB/STANDARD/pc=PC_410069.

Wholesale bundled voice and broadband markets

Wholesale markets for bundled voice and broadband services comprise resale services and 'access-based supply'.

Access seekers can purchase resale services (WLR, LCS, PSTN OA or equivalent services) together with LSS to provide bundled voice and broadband services to their retail customers. Access seekers using the LSS can provide ADSL2+ services to end-users.

In regard to resale services, the ACCC considers that wholesale supply of ADSL services (for example, wholesale ADSL2+ offered by Telstra) is a substitute for the LSS (to the extent such services are available at competitive rates).

Alternatively, access seekers can supply retail voice and broadband services to end-users by purchasing ULLS and using of their own infrastructure (a digital subscriber line access multiplexer (DSLAM) or multi-service access node (MSAN) installed in a Telstra exchange). In regard to the supply of bundled voice and broadband services, the ACCC considers that the ULLS is a direct substitute for the LSS, as both the ULLS and the LSS can be used to provide xDSL services in retail markets.

Questions	
6.23	Please comment on the appropriateness of the market dimensions described above for assessing the effects of the exemptions on the state of competition in relation to WLR, LCS and PSTN OA services.
6.24	Please comment on whether the retail and wholesale markets for voice and bundled services should be considered as separate markets or a single market. Reasons should be provided for your answer.
6.25	Please comment on whether voice markets are a separate market to the market for bundled services or whether they form a single market. Reasons should be provided for your answer.
6.26	How substitutable are mobile voice services and VoIP services for traditional PSTN voice services? Please comment on whether they should be included in the relevant market definitions.
6.27	Please comment on whether voice markets, at wholesale and/or retail level, comprise separate residential markets and corporate/government markets.

6.4.2 ACCC's preliminary view on the relevant geographic markets

The ACCC has previously considered that the ESA is the basic geographic unit at both the wholesale and the retail level. The ACCC considered this geographic dimension more accurately reflected the actual level of competition in providing services compared to the broader delineations between different geographic levels such as between CBD, metropolitan and regional areas.

The ACCC notes recent research that has drawn attention to:

> …the needs of operators [service providers] that function through integrated service provision. In particular, business service providers' requirements might differ from those of other operators because of their customers' demand for geographically dispersed sites to be

> connected. This might make it prudent to consider that markets for the provision of business products are national in scope …[154]

However, access seekers may be able to meet the demands of corporate and government end-users for integrated service provision across a broad geographic area by aggregating resale and/or 'access-based supply' services obtained at the level of individual ESAs.

Questions	
6.28	Please comment on whether the exchange service area (ESA) represents the appropriate geographic dimension for assessing the effects of the exemptions on the state of competition in relation to WLR, LCS and PSTN OA services.
6.29	Please comment on whether the geographic dimension of wholesale or retail markets for corporate and government services broader in geographic scope than the ESA.

[154] P Xavier and D Ypsilanti, 'Geographically segmented regulation for telecommunications: lessons from experience', *The Journal of Policy, Regulation and Strategy for Telecommunications, Information and Media*, vol. 13 (2), 2011, p. 15.

Appendix—List of questions

The ACCC seeks interested parties' views regarding:

Questions	
Chapter 3	
3.1	Do interested parties have any comments on the proposed 'future with and without' assessment?
3.2	Should the 'future with' exemptions scenario incorporate the existing conditions and limitations, as set out in the Tribunal's Metropolitan Orders and FADs? If any variation is proposed, alternative conditions or limitations should be specified.
Chapter 4	
4.1	How much weight, if any, should the ACCC give to the ladder of investment theory in its 'with and without' assessment?
4.2	If the ladder of investment theory is adopted, how long should regulated access to the lowest 'rung' of the ladder (that is, resale services) be provided?
Chapter 6	
6.1	How does investing in DSLAMs/MSANs (in conjunction with purchasing the ULLS) allow access seekers to better serve their retail customers? Please give details.
6.2	On what service dimensions do resale-based access seekers compete in attracting and retaining retail customers?
6.3	How important is the availability of (wholesale) resale services for new and potential new retail service providers in entering retail markets? How important is the availability of those services for established retail service providers? Please give reasons, supported, if possible, by examples.
6.4	How important are integrated product offerings, that is, the supply of a range of telecommunications services by a single supplier, to end-users? How significant is the availability of voice-only resale services in allowing access seekers to supply integrated product offerings? Please identify the types of customers that are most likely to require integrated product offerings and give detail about the services they require.
6.5	What market information is available, or could be made available, to assist the ACCC in assessing the importance of competitively-priced voice-only resale services in promoting competition at the wholesale and/or resale level?
6.6	Does the existence of spare DSLAM/MSAN capacity in an ESA create the

	potential for resale services to be offered by access seekers with their own infrastructure?
6.7	Are there any other conditions required to create the conditions for wholesale competition to develop?
6.8	What are the main reasons for access seekers' decisions to invest in their own DSLAM/MSAN infrastructure? What factors are taken into account in making the decision to invest? In your answer, please identify any factors considered to form barriers to investing and indicate how significant they are to the decision to invest.
6.9	What is the cost of installing a DSLAM/MSAN? What are the costs of operating a DSLAM/MSAN once it is installed? What are the costs of expanding the capacity of a DSLAM/MSAN by adding ports? by adding voice cards? What associated infrastructure and/or equipment (such as switching equipment) is required and what are the costs of that infrastructure?
6.10	What are the costs of supplying resale services (wholesale line rental, local carriage and PSTN originating access services)? Please give details of the cost components. What other factors are taken into account in making the decision to supply resale services?
6.11	What, if any, technical limitations exist on the supply of resale services? Please give details.
6.12	What conditions are placed on the supply of resale services? Please give details. Why are these conditions imposed? If they are imposed for technical reasons, please give details.
6.13	How many wholesale suppliers of resale services operate in the exempt areas? Please provide numbers for each of the exempt ESAs, if possible, and name the suppliers of resale services.
6.14	How do the prices of, and conditions that are placed on, the supply of resale services, vary among different suppliers? Please give details.
6.15	How do the incentives for supplying voice-only resale services differ from those for supplying bundled voice and broadband resale services? Please give details.
6.16	To what extent do bundled voice and broadband services substitute for voice-only services? Please comment in relation to both retail and wholesale markets.
6.17	How competitive are wholesale markets for resale products, including voice-only and bundled voice and broadband services? Please give reasons.
6.18	How viable is a wholesale-only business model—where an access seeker supplies only resale services to other access seekers and does not supply retail services—as a business strategy? Please explain.
6.19	How has the roll-out of the NBN changed the business strategies adopted by access seekers? For access seekers, please explain how your business

	strategy is affected by the NBN.
6.20	How commercially viable is a wholesale-only business strategy expected to be on the NBN? How does such a strategy compare with an alternative strategy of supplying only retail services on the NBN? What factors will affect the commercial viability of a wholesale-only business strategy on the NBN?
6.21	How have the exemptions affected the prices, product range or quality of services received by retail customers? Has the overall impact been positive or negative for end-users? Please distinguish between customer groups if the impacts have varied.
6.22	How important are barriers to new entry in the exempt areas compared with new entry in the non-exempt areas? Please identify the barriers that exist. How will these entry barriers affect the level of competition likely to develop on the NBN?
6.23	Please comment on the appropriateness of the market dimensions described above for assessing the effects of the exemptions on the state of competition in relation to WLR, LCS and PSTN OA services.
6.24	Please comment on whether the retail and wholesale markets for voice and bundled services should be considered as separate markets or a single market. Reasons should be provided for your answer.
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