



Australian
Competition &
Consumer
Commission

Public Inquiry into final access determinations for fixed line services— primary price terms

Discussion paper

July 2014



Australian Competition and Consumer Commission

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List of abbreviations and acronyms

ACCC	Australian Competition and Consumer Commission
ADSL	asymmetric digital subscriber line
AER	Australian Energy Regulator
AGVC	aggregating virtual circuit
BBM	Building Block Model
BBM RKR	Building Block Model Record Keeping Rule
CAN	customer access network
CCA	<i>Competition and Consumer Act 2010</i>
c-i-c	commercial in confidence
CPI	consumer price index
CSP	carriage service provider
DSL	digital subscriber line
DSLAM	digital subscriber line access multiplexer
DTCS	domestic transmission capacity service
ESAs	exchange service areas
FAC	fully allocated cost
FAD	final access determination
FLSM	Fixed Line Services Model
FOAS	fixed originating access service
FTAS	fixed terminating access service
FTTN	fibre-to-the-node
FTTP	fibre-to-the-premises
HFC	hybrid fibre coaxial
IAD	interim access determination
IIC	internal interconnect cable
LCS	local carriage service
LSS	line sharing service
LTIE	long term interests of end-users
MDF	main distribution frame
MOU	minutes of use

MTAS	mobile terminating access service
MTM	multi-technology-mix
NBN	National Broadband Network
PAC	partially allocated cost
PSTN OA	public switched telephone network originating access service
PSTN TA	public switched telephone network terminating access service
RAB	regulatory asset base
RAF	regulatory accounting framework
RKR	record keeping rule
SIOs	services in operation
TEBA	Telstra Equipment Building Access
ULLS	unconditioned local loop service
VLAN	virtual local area network
WACC	weighted average cost of capital
WLR	wholesale line rental

Glossary

Access determination	Written determinations made by the ACCC relating to access to a declared service after conducting a public inquiry; specifying any or all of the terms and conditions for compliance with any or all of the standard access obligations.
access seeker	Telecommunications companies that seek access to a declared service (that is, the right to use the declared service).
access provider	Telecommunications companies that provide access to a declared service.
ADSL	Asymmetric Digital Subscriber Line. A technology for transmitting digital information at high data rates on existing copper phone lines. It is called asymmetric because the download and upload speeds are not symmetrical (that is, download is faster than upload).
AGVC	Aggregating Virtual Circuits (AGVC) are used to provide connectivity between one or more ADSL end-users and a centrally-located point of interconnect between the Telstra DSL network and an ISP network. AGVCs are used in conjunction with ATM protocol DSLAMS. Customers on newer Ethernet protocol DSLAMS require an Ethernet AGVC equivalent – a Virtual Local Area Network (VLAN).
avoidable cost	For a multi-product or multi-service firm, the avoidable cost of any service or combination of services is the long run cost avoided if a firm were to no longer offer that service or combination of services.
Building Block Model Record Keeping Rule	The Building Block Model Record Keeping Rule (BBM RKR) requests information on forecast and actual data from Telstra relating to operating expenditure, capital expenditure, depreciation and demand that is required to effectively implement the Fixed Line Services Model (FLSM). The FLSM is used as part of the ACCC's building block model-approach to determine prices for the declared fixed line services and wholesale ADSL.
capital expenditure	Capital expenditure refers to the amount spent by Telstra to acquire or upgrade any asset or part of an asset included in the FLSM Asset Classes. Capital expenditure forecasts are an input into calculating prices for the declared fixed line services. Forecast annual capital expenditure is rolled into the RAB each year and forms a component of the revenue requirement through the return on and of capital.
cost allocation factors	Each service's share of the aggregate revenue requirement is calculated by applying cost allocation factors to the total operating, capital and tax costs associated with each of the asset classes in the FLSM. The cost allocation factors represent the share of costs incurred in supplying a particular service.
Customer Access Network	Customer Access Network (CAN) is the portion of Telstra's fixed network of copper wires that connects each telephone end-user to the network switch at their local exchange. The CAN is used to supply customers with

	a range of fixed line services, including the declared fixed line services.
Comparison Statement	The Comparison Statement refers to the document Telstra submitted under the BBM RKR that compares forecasts of the previous regulatory period with actual figures for that period.
Core network	Telstra's Core network is used to transmit calls and data between major exchanges in the capital cities using the transmission network.
declaration inquiry	The process by which the ACCC holds a public inquiry to determine whether a service should be declared.
declared service	A service that the ACCC regulates under Part XIC of the CCA. Once declared, a service provider must supply the service to other parties in accordance with the standard access obligations and the terms and conditions set in the final access determination.
Definitive Agreement	Agreements made between Telstra and NBN Co on 23 June 2011 to migrate customers from Telstra's fixed line network to the NBN and for NBN Co to lease and acquire certain infrastructure from Telstra.
DSLAM	Digital Subscriber Line Access Multiplexer. A device which makes use of the copper access lines to provide high data rate services, enabling broadband services to be provided over copper lines. It is located in a telephone exchange that links many customer DSL connections (copper wires) to a core IP network via a backhaul system.
DTCS	Domestic Transmission Capacity Service. The regulated transmission service.
end-user	Retail residential and business consumers of telecommunication services.
exchange	Place where various numbers and types of communication lines are switched so as to establish a connection between two telephones. The exchange also houses DSLAMs, allowing end-users to connect to the internet.
Explanatory Statement	The Explanatory Statement refers to the document Telstra submitted under the BBM RKR that describes the methodology for the forecast estimates, assumptions used, cost drivers and any other observations from Telstra.
FAD	Final Access Determination. The FAD is made by the ACCC and sets the terms and conditions (including prices) on which a service provider must supply a declared service.
FOAS	Fixed Originating Access Service. The declared service replacing the previously declared PSTN OA service. Enables a telephone call to be connected from the caller to a point of interconnection with another network.
FTAS	Fixed Terminating Access Service. The declared service replacing the previously declared PSTN TA service. Enables a telephone call to be

	carried from the point of interconnection to the party being called on another network.
fixed line services	Telecommunications services provided over fixed networks, such as Telstra's copper network and HFC networks. The 'declared fixed line services' comprise seven services: the six fixed line services declared in 2014—the ULLS, LSS, WLR, LCS, FOAS and FTAS and the wholesale ADSL service declared in 2012.
fixed principles provision	An FAD may contain a fixed principles provision, which allows a provision in an FAD to have an expiry date after the expiry date of the FAD. Such a provision would allow the ACCC to 'lock-in' a term so that it would be consistent across multiple FADs.
FLSM	The Fixed Line Services Model (FLSM) is used as part of the ACCC's building block model-approach to determine prices for the declared fixed line services and wholesale ADSL.
LCS	The declared Local Carriage Service. Enables access seekers to resell local calls to end-users without having to invest in their own network and switching equipment. The LCS is purchased in conjunction with the WLR service.
LSS	The declared Line Sharing Service. Enables access seekers to share the use of the copper line connecting consumers to the telephone exchange, allowing them to provide fixed internet services using their own equipment.
Main Distribution Frame	The main distribution frame (MDF) is a set of terminal points providing a means of interconnection between pairs. An MDF is used in many multi-dwelling residential and large commercial premises as a means of interconnection between Telstra's copper wire customer access network and the internal telephone wiring of the premises. There is also an MDF at the local telephone exchange which provides a point of interconnection between the main feeder network cables and the equipment inside the exchange.
MTAS	The declared Mobile Terminating Access Service. A wholesale service provided by a mobile network operator (MNO) to fixed line operators and other MNOs to connect – or 'terminate' – a call on its mobile network. It enables calls to be made to consumers on mobile phone networks.
operating expenditure	Operating expenditure refers to all ongoing direct and indirect operating expenditure relating to Fixed Line Services and the Wholesale ADSL service provided by Telstra. Forecast operating expenditure forms a cost block in the building block approach and therefore contributes directly to Telstra's total revenue requirement.
propex	Project-based operating expenditure (propex) is a term Telstra uses to distinguish operating expenditure associated with capital outlay from other direct and indirect operating expenditure types.

PSTN	Public Switched Telephone Network. The telephone network that allows the public to make and receive telephone calls via switching and transmission facilities and utilising analogue and digital technologies.
PSTN OA	The declared PSTN Originating Access service. The name of this service has been changed to Fixed Originating Access Service (FOAS). PSTN OA is still used to remain consistent with Telstra documentation where applicable.
PSTN TA	The declared PSTN terminating access service. The name of this service has been changed to Fixed Terminating Access Service (FTAS). PSTN TA is still used to remain consistent with Telstra documentation where applicable.
retail service provider	Companies that offer telecommunications services to end-users.
revenue requirement	The revenue requirement refers to the aggregate revenue requirement calculated by the FLSM that allows Telstra to recover its cost of supplying regulated services.
special access undertaking	A document given by the access provider proposing the terms and conditions on which it will offer access to its services (if approved by the ACCC, access seekers can obtain supply on these terms).
Stand alone cost	For a multi-product or multi-service firm, the stand alone cost of any service or combination of services of a firm is the cost of providing that service or combination of services in isolation.
TEBA	This commonly refers to space designated for access seeker use in Telstra's exchanges. It encompasses access to floor space, equipment racks or rack space and services such as power, security and air-conditioning. TEBA also includes access to cable trays and the internal interconnection cables contained in them.
transmission	The carriage of voice, data or other communications.
ULLS	The declared Unconditioned Local Loop Service. Allows access seekers to use the copper line connecting end-users to the local telephone exchange, allowing them provide both fixed internet (broadband) and voice services using their own DSLAMs and other exchange equipment.
VLAN	Virtual Local Area Networks are used to provide connectivity between one or more ADSL end-users and a centrally-located point of interconnect between the Telstra DSL network and an ISP point of presence. VLANs are used in conjunction with Ethernet based DSLAMs.
wholesale ADSL	The declared Wholesale ADSL service. Allows access seekers to purchase a Wholesale ADSL product from Telstra and resell internet services to end-users.
WLR	The declared Wholesale Line Rental service. For a monthly 'per-user'

	<p>charge, it allows access seekers to purchase a line rental service from Telstra, which includes access to the copper line and associated services (including a dial tone and telephone number) supplied using Telstra's equipment.</p>
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Executive summary

The ACCC is commencing consultation on the method for setting the primary prices to be included in the final access determinations (FADs) for the seven declared fixed line services with this discussion paper. The primary prices are those applying to the following access services provided on Telstra's public switched telephone (PSTN) and asymmetric digital subscriber line (ADSL) networks:

- unconditioned local loop service (ULLS)
- line sharing service (LSS)
- fixed originating access service (FOAS)—previously PSTN originating service (PSTN OA)
- fixed terminating access service (FTAS)—previously PSTN terminating service (PSTN OA)
- wholesale line rental (WLR)
- local carriage service (LCS)
- wholesale service (wholesale ADSL)

The ACCC commenced separate consultation on the FAD non-price terms and supplementary prices through a discussion paper released on 23 May 2014.

The ACCC will consider a number of complex issues that impact on the primary prices of the declared services during the FAD public inquiry. Also, at the time of release of this discussion paper, there are uncertainties regarding the National Broadband Network (NBN) and arrangements between Telstra and NBN Co which present challenges for the public inquiry process.

Pricing methodology for determining primary prices

The ACCC uses a Building Block Model (BBM) pricing methodology for setting prices for the fixed line services. The BBM is an established approach used to determine the revenue required by a regulated business and has been widely adopted by Australian regulators in other sectors. It allows the access provider to recover its efficient actual costs as well as a reasonable rate of return on, and a return of, its investment in existing sunk assets.

Implementing the BBM requires establishing the initial value of the regulated business's regulatory asset base (RAB). The ACCC set fixed principles in the 2011 FADs that lock-in the initial value of the RAB and the mechanism by which it is rolled forward at the end of each year.

A principal advantage of a BBM is that it improves certainty for both the access provider and access seeker relative to the total service long run incremental cost (TSLRIC+) approach which the ACCC used prior to 2011. This enables access provider and access seeker to make efficient decisions regarding their future investment, thereby contributing to the long term interest of end users (LTIE).

The ACCC has also made a record keeping rule (the BBM RKR) that enables us to obtain the expenditure and demand forecasts and other information needed to input into the fixed line services model (FLSM) which we use to implement the building block methodology for the fixed line services.

Telstra's expenditure and demand forecasts

Telstra has provided information required under the BBM RKR (BBM RKR response). This information includes capital and operating expenditure and demand forecasts for the five year period up to 2018–19 and an explanation of the forecasting methodology and assumptions used to prepare the forecasts.

Public extracts of the BBM RKR response are available on the ACCC website and access seekers are able to obtain a confidential version on certain conditions, including the execution of a confidentiality undertaking.

Assumptions regarding the impact of the National Broadband Network (NBN) rollout on the fixed line network are important factors impacting Telstra's expenditure and demand forecasts provided in its BBM RKR response. Telstra used information regarding the NBN design and rollout schedule available as at June 2013. Telstra argues that its forecasts are, therefore, based on out-of-date assumptions and that it will update its forecasts when information regarding the implementation of the Government's mixed-technology-model (MTM) architecture for the NBN is known.

Uncertainty regarding the NBN is a significant issue for the inquiry into making FADs for the fixed line services as it impacts both on the timeliness and on the reliability of the information on which the ACCC will have to rely. The discussion paper seeks stakeholder views on options the ACCC could pursue to address the consequences of uncertainty regarding the NBN for determining price terms for the FADs (see section 2.1.3 of the discussion paper).

The ACCC also invites stakeholder comments on Telstra's expenditure and demand forecasts and the methodologies and assumptions used to prepare them.

Telstra's BBM RKR response is discussed in chapter 2 of the discussion paper.

Cost allocation and declining demand

Telstra's fixed line network is used to provide services in addition to the declared services. These include other fixed line services—that is, retail services to residential and business customers. Use of the assets is also shared with other purposes—for example, transmission assets are used as input to provide many other services in addition to fixed line services, including mobile services, video and other data applications. Cost allocation factors are used within the ACCC's FLSM to allocate a share of Telstra's fixed line and shared asset costs to declared services. Cost allocation factors are key elements in determining the amount of revenue Telstra will be able to recover from declared services.

The cost allocation factors developed and adopted for the 2011 final access determinations were based on cost allocation factors taken from the 'Analysys' model (a TSLRIC+ model developed before the ACCC adopted the building block model). A key feature of the cost allocation factors adopted in the 2011 FADs is that they reflect a 'partially allocated' approach as the ACCC did not have available to it the information necessary to develop a fully allocated cost model.

To establish initial cost allocation factors for the FLSM, the ACCC made a number of adjustments to the Analysys cost allocation framework so that it better aligned with asset classes and usage comprising Telstra's network. One adjustment related to PSTN switching assets: The ACCC was of the view in 2011 that certain Telstra assets (in particular switching equipment) were over provisioned and that Telstra should not receive revenue through regulated prices for the excess capacity. The ACCC dealt with this through the allocation factors used to allocate a share of the costs of these assets to declared services (rather than by making an adjustment to the value it set for the assets in the RAB).

The approach the ACCC adopted in the FLSM for the 2011 FADs also involves an annual adjustment in response to changes in demand; as demand for a particular declared service

rises (falls) the share of costs allocated to that service rises (falls) such that unit costs (and hence prices) are invariant to changes in demand alone. This resulted in Telstra bearing the impacts of the declining demand for fixed line voice services.

Telstra has developed and submitted to the current FAD inquiry an alternative cost allocation framework. A public version of Telstra's cost allocation submission is on the ACCC website and Telstra will provide a confidential version to access seekers subject to confidentiality undertakings.

Telstra's cost allocation proposal is that a fully allocated cost model should be used to determine the declared services' share of the costs of assets used to supply the services. Trends in demand for the services supplied on the fixed line networks are significant determinants of how a move from the current allocation framework to the approach proposed by Telstra will impact on prices. In circumstances where a significant proportion of costs are fixed and sunk, declining market demand leads to rising unit costs and prices.

This is the case for the market for traditional fixed line voice services. Declining demand for services delivered over Telstra's public switched telephone network (PSTN) has been driven over a number of years by take-up of mobile technologies and loss of market share by Telstra to access seekers. Migration of customers to the NBN is likely to be an additional driver of declining demand for services supplied over Telstra's network over the next regulatory period.

Telstra's proposed cost allocation framework fundamentally changes the way the impact of declining demand is borne by Telstra and access seekers. Under the proposed fully allocated model, a share of the impacts of declining demand will be borne by access seekers through higher access prices.

One effect of Telstra's fully allocated proposal is to allocate a share of the previously unallocated costs of the excess capacity on certain assets to the declared services. This would unwind, for the next period, the ACCC's 2011 decision that Telstra should not be compensated for loss of market share or over provisioned assets.

Key issues for this FAD inquiry are the extent to which Telstra and access seekers should bear the impacts of declining demand, and whether different sources of declining demand should be accounted for in different ways.

Cost allocation and declining demand are discussed in chapters 3 and 4 respectively. Further information on asset classes and cost allocation is available in 'Additional information on cost allocation' published on the ACCC website with the discussion paper.

Determining prices and price structures

Allocating a share of total costs to the declared fixed line services is only one step in the process for determining prices. Once total costs attributed to each service have been determined, this is divided by the demand for the services to establish unit costs and prices. The FLSM undertakes these steps simultaneously: calculating first the capital, operating and taxation costs for each of the 22 asset classes in the RAB; next, allocating a share of the costs of each asset class to the declared services; then, for each declared service aggregating the asset class costs allocated to that service; and finally determining unit prices for each declared service.

Telstra has suggested in discussions with the ACCC that an alternative, more flexible approach could be adopted. This approach would have the following components:

- Prices for individual services would be set so that revenue earned from each service lies between the avoidable cost and the stand alone cost of providing the service.
- Prices for all declared services would be set so that Telstra can expect to recover the total revenue requirement associated with all declared fixed line services but without a one for one relationship to the assets that underpin each service.

The ACCC used this approach to a limited extent in its decision for the 2013 wholesale ADSL FADs. A two-part price structure—composed of port and AGVC¹ charges—is used to price wholesale ADSL. However the costs of each component are not separately determined; instead a total per service cost is determined and the component charges are set to recover those costs.

The ACCC considers that an alternative approach to setting prices merits consideration and invites stakeholder views on this issue. A discussion of this issue is in chapter 5 of the paper.

The ACCC is also consulting on the price structures for the declared services – in particular for the ULLS, FTAS/FOAS and wholesale ADSL where certain price structures are currently in place. Typically, the ACCC will consider adopting particular price structures where the approach is likely to promote the LTIE, having regard to the other legislated matters. For example, prices that will better reflect the underlying costs (or cost differences) of providing services in different circumstances (i.e. across different geographic areas) may improve economic efficiency and promote competition.

In the 2011 FAD, the ACCC adopted a form of geographically de-averaged pricing for ULLS, setting an average price for Bands 1-3 and a separate price for Band 4, where costs are higher. For the FTAS/FOAS, the ACCC set a single nationally-averaged per minute price. While other pricing structures have been adopted in the past for FTAS/FOAS, including geographic and two-part price structures, any further consideration of such approaches would need to be supported by robust reasoning and detailed cost information.

For the 2013 wholesale ADSL FAD, the ACCC adopted both a geographic zone and two-part pricing structure (based on per user port charges and AGVC/VLAN charges for network capacity). These price structures were adopted by Telstra in its commercial supply of wholesale ADSL before it became a declared service. This inquiry provides an opportunity to review the approach and the way it has been implemented in the 2013 wholesale ADSL FAD.

Pricing structures are discussed in chapter 6 of the discussion paper.

Impacts of the National Broadband Network

Australia is currently transitioning from provision of fixed line telecommunications services over Telstra's legacy network infrastructure to the NBN. The transition is occurring under arrangements established in the Definitive Agreements between Telstra and NBN Co to migrate customers to the NBN and for NBN Co to lease and acquire certain infrastructure from Telstra. These arrangements will have significant impacts on the way Telstra's fixed line assets are used and are important considerations in determining prices for declared services.

There are two aspects of the NBN that are relevant to the setting of price terms for the FADs. The first is how the migration of customers to the NBN is to be reflected in the demand and expenditure forecasts inputted to the FLSM that the ACCC uses to estimate prices for the declared services (discussed above and in chapter 2). The second is the treatment of the arrangements between Telstra and NBN Co for the migration of customers and the use of Telstra's assets (chapter 7).

A key concern for Telstra and access seekers is how payments occurring pursuant to the Definitive Agreements are to be accounted for when setting the price of declared services. The ACCC recognises that accounting for these arrangements is likely to be a complex and contentious issue. Indeed, stakeholders have been advocating strongly on this issue and access seekers have provided early submissions on it to the FAD inquiry. The ACCC has also received correspondence from the Minister for Communications and the Minister for Finance on the issue (available on the ACCC website).

¹ Charges for AGVC/VLAN (Aggregating Virtual Circuit and Virtual Local Area Network) relate to network capacity purchased by an access seeker, specified for the ATM and Ethernet protocols respectively.

Moreover, the arrangements between Telstra and NBN Co that provide for the replacement of one fixed line network by another are unique. There is therefore only limited regulatory precedent that can inform or guide how these arrangements can be reflected in prices for declared services.

The ACCC has identified a number of conceptual and practical issues regarding the impacts of the NBN on prices for declared services and potential options for accounting for those impacts. A key issue to be considered is how to determine the value of the arrangements between Telstra and NBN Co. The ACCC has identified two distinct approaches for valuing the arrangements. The first is to base any adjustments to reflect the arrangements between Telstra and NBN Co on the values assigned within the FLSM to the underlying assets affected by the arrangements. The second approach is to base any adjustments to reflect the arrangements between Telstra and NBN Co on the value of the payments made to Telstra by NBN Co.

The ACCC has also identified a number of practical issues to be addressed when accounting for the impact of the NBN within the FLSM.

The implications of the NBN arrangements for the FAD inquiry are discussed in chapter 7 and practical matters in accounting for NBN arrangements in the FLSM are discussed (with other more technical issues) in chapter 8.

Other issues

In addition to the above pricing issues, the discussion paper discusses and seeks stakeholders' views on an appropriate term for the FADs as well as a number of other issues of a technical nature.

In relation to the term of the FADs, the ACCC considers that a regulatory period should balance the need to provide longer term pricing stability and certainty to support industry investment planning with the need for flexibility to review prices and price structures when there are changes in industry circumstances.

The ACCC seeks views on an appropriate regulatory term for the next fixed line FADs (chapter 9).

Technical pricing issues on which stakeholder views are sought, discussed in chapter 8, are:

- cash flow timing and the appropriateness of the half-WACC adjustment
- cost of capital
- calculation of the taxation allowance
- approach to indexing within the FLSM
- accounting for Telstra–NBN Co arrangements in the FLSM.

Consultation

Submissions on the discussion paper are due by **5:00 pm, 26 September 2014**.

The ACCC will hold a technical workshop on **Thursday 28 August 2014** to provide access seekers with the opportunity to seek further explanation regarding the FLSM model, Telstra's proposed cost allocation model and its BBM RKR response. Information regarding details of the workshop will be published on the ACCC website shortly.

1 Introduction

On 11 July 2013, the ACCC commenced a combined public inquiry under Part 25 of the Telecommunications Act 1997 into making final access determinations (FADs) under section 152BC of the *Competition and Consumer Act 2010* (CCA), for the seven declared fixed line services (FAD inquiry).² This inquiry is part of the overall review of the regulated fixed line services — the Fixed Services Review.

The current FADs for the seven declared fixed line services specify certain price and non-price terms and conditions that apply in the absence of agreement between the access provider and the access seeker.

The purpose of this discussion paper is to provide access seekers with the opportunity to make submissions on issues relevant to the primary price terms included in the FADs for the seven declared fixed line services.

The ACCC will address a number of complex pricing issues during this FAD inquiry. This discussion paper identifies the major issues and provides context and options to assist stakeholders in preparing submissions.

ACCC considers an approach to dealing with the key pricing issues should be addressed before determining preliminary price estimates of the regulated services. These pricing issues are identified in this discussion paper and include cost allocation (discussed in chapter 3) and approaches to declining demand for services on Telstra's fixed line network (discussed in chapter 4), and treatment of Telstra's transactions with NBN Co (discussed in chapter 7).

1.1 Background

The ACCC considers that the price terms fall into two categories:

- The **primary prices** for the declared services are charges for direct use of the services, that is: the monthly access prices for the unconditioned local loop service (ULLS), line sharing service (LSS), wholesale line rental (WLR) and wholesale ADSL port service; the usage charges for the local carriage service (LCS), mobile terminating access service (MTAS), fixed originating access service (FOAS) and fixed terminating access service (FTAS) (previously known as PSTN OA and TA), and wholesale ADSL aggregating virtual circuit (AGVC) service; and the annual charges for the domestic transmission capacity service (DTCS).
- The **supplementary prices** for these services refer to additional charges incurred in using the services, for example, connection and disconnection charges.

The ACCC is separately examining in a concurrent consultation the non-price terms and conditions and supplementary prices for the FADs. On 23 May 2014 the ACCC sought submissions on the supplementary price issues for the fixed line, DTCS and MTAS FADs, as well as submissions on the non-price terms and conditions for these FADs. Stakeholders are invited to refer to that consultation and make submissions to that consultation for all issues not relating to the primary price terms covered by this paper. The ACCC expects to release separate discussion papers on the price terms for the DTCS and the MTAS FADs in mid-2014.

Extension of current FADs - expiry dates

On 16 April 2014 the ACCC extended the current FADs for the fixed line services until the day before the new FADs come into force. The current fixed line FADs were due to expire on 30

² The declared fixed line services are the unconditioned local loop service (ULLS), line sharing service (LSS), wholesale line rental service (WLR), local carriage service (LCS), fixed originating access service (FOAS), and the fixed terminating access service (FTAS).

June 2014. Due to a number of factors, the ACCC was not in a position to complete the current FAD inquiry prior to the expiry of the FADs on 30 June 2014. These factors include the implications of uncertainty regarding the National Broadband Network (NBN) for the expenditure and demand forecasts provided by Telstra, the first time nature of some aspects of the inquiry process and the number of complex pricing issues to be considered.

Declaration inquiry 2014 - expiry dates

On 17 April 2014, the ACCC decided to extend the declarations of the fixed line services (apart from wholesale ADSL) for the period 1 August 2014 to 31 July 2019, and made variations to some of the service descriptions.³ The wholesale ADSL declaration, which was made on 14 February 2012, will expire on 13 February 2017.

FAD variation inquiry

On 20 June 2014, the ACCC decided to vary the existing FADs for the ULLS, the LSS, the WLR service and the LCS.⁴ This was decided in order to:

- ensure the current regulated charges for the WLR and LCS services will apply in CBD areas (after the CBD exemptions in the declarations are removed from 1 August 2014)
- set a regulated price term for the Internal Interconnection Cable (IIC) service in the FADs for the ULLS and LSS (after the current arbitration determinations expire on 30 June 2014).

Extension of inquiry period to make the FADs

On 2 July 2014 the ACCC extended the inquiry period for making the FADs for the fixed line services until 11 January 2015. The decision making period was previously extended by the maximum period of six months, from 11 January 2014 to 11 July 2014. Given the number and complexity of issues to be considered, the ACCC intends to consult extensively during the FAD inquiry. ACCC therefore expects that the FAD inquiry will not conclude until around mid-2015 and that it is likely to be necessary for to extend the period for making the FADs beyond 11 January 2015.

1.2 Assessment framework

Legislative framework

The legislative framework that applies to the making of FADs and the approach the ACCC will take in applying these criteria are set out in appendix C.

Pricing Methodology

The ACCC has adopted a Building Block Model (BBM) pricing methodology for setting prices for the fixed line services. The BBM approach was first applied in the September 2010 draft report⁵ and was subsequently applied in setting prices in the 2011 Fixed Line Services FADs and 2013 Wholesale ADSL FAD. Prior to adopting the BBM framework, the ACCC used the Total Service Long Run Incremental Cost (TSLRIC+) and Retail-Minus-Retail-Cost (RMRC) methodologies for setting indicative prices under the previous negotiate-arbitrate regulatory framework. During its 'review of the 1997 telecommunications access pricing principles for fixed

³ ACCC, *Fixed Services Review – Public inquiry into the fixed line services declarations, Final Report*, April 2014.

⁴ ACCC, *Fixed Services Review - Inquiry into varying the WLR, LCS, ULLS, LSS FADs, Final report*, June 2014

⁵ ACCC's review of the 1997 telecommunications access pricing principles for fixed line services draft report, September 2010

line services' and the subsequent 2011 FAD inquiry, the ACCC undertook extensive consultation on adoption of the BBM and received broad support for that from the industry.

The BBM is an established approach used to determine the revenue required by a regulated business and has been widely adopted by Australian regulators in other sectors. It allows the access provider to recover its efficient actual costs as well as a reasonable rate of return on, and a return of, its investment in existing sunk assets.

Implementing the BBM requires establishing the initial value of the regulated business's regulator asset base (RAB).⁶ Once the initial value of the RAB is established, it is 'locked-in' and rolled forward from one year to the next.

A principal advantage of adopting a BBM is that it improves certainty for both the access provider and access seeker relative to the TSLRIC+ approach. This is because it sets a value for the regulatory asset base (RAB) and a fixed method for updating the RAB value used to provide the declared services. This is in contrast to the continual revaluation of network assets and the calculation of forward looking costs providing the services using modern equivalent assets (MEA) that occurs under a TSLRIC+ approach. This enables access provider and access seeker to make efficient decisions regarding their future investment, which in turn promotes economically efficient investment in infrastructure.⁷ Other advantages of the BBM includes promoting predictable revenue and price paths and minimising the prospect of windfall gains and losses and ensuring that the access provider is adequately compensated for its costs over time.⁸

To implement the BBM, the ACCC has developed a pricing model—called the Fixed Line Service Model (FLSM)—which it uses to determine prices for the declared fixed line services.⁹ The ACCC has also established the BBM record keeping rules (RKR) to enable collection of information from Telstra which is required for implementing the FLSM (chapter 2).

Fixed principles provisions

An access determination may contain 'fixed principles provisions' that lock in certain matters until the nominal termination date.¹⁰ Both price and non-price terms and conditions can be designated as fixed principles provisions. The fixed principles provisions contained in the FADs for the seven declared fixed line services 'lock in' key elements of the pricing framework and provide the industry with certainty over time about how the ACCC will estimate prices for the declared fixed line services.

Fixed principles for the declared fixed line services (apart from Wholesale ADSL) were made on 20 July 2011.¹¹ The wholesale ADSL service was declared on 14 February 2012 and fixed principles were made in the FAD for this service on 29 May 2013. The fixed principles provisions for the seven declared fixed line services apply until of 30 June 2021. This will give the industry pricing certainty during the transition to the NBN.

The fixed principle provisions:

- lock in an initial regulatory asset base (RAB)
- specify a RAB roll forward mechanism

⁶ Setting of the initial RAB is discussed in details in the ACCC's April 2011 draft report and July 2011 final report for the 2011 Fixed Line Services FAD inquiry.

⁷ Ibid.

⁸ Ibid.

⁹ The key features of the FLSM are discussed in the ACCC's April 2011 draft report and July 2011 final report for the 2011 Fixed Line Services FAD inquiry.

¹⁰ Section 152BCD(1) of the CCA

¹¹ ACCC, *Inquiry to make final access determinations for the declared fixed line services – Final Report public version*, 20 July 2011.

- specify the components of the revenue requirement
- specify factors the ACCC will take into account in determining whether operating expenditure and capital expenditure forecasts reflect prudent and efficient costs
- specify a process for assessing demand forecasts
- specify that a vanilla WACC is to be used in calculating the WACC
- specify information relating to tax liabilities and cost allocation factors.

1.3 Confidentiality arrangements

BBM RKR

The ACCC has the power to make rules ('Record Keeping Rules' or 'RKR's') that require carriers or carriage service providers to keep or retain relevant records. The RKR may also require the carrier or carriage service provider to prepare reports based on these records, and to provide those reports to the ACCC.

The ACCC uses a building block model (BBM) known as the Fixed Line Services Model (FLSM) to determine prices for the declared fixed line services in access determinations.¹² The ACCC requires forecast and actual data from Telstra relating to operating expenditure, capital expenditure and demand to effectively implement the FLSM.

On 24 August 2012, the ACCC made the BBM RKR, which requires Telstra to provide the ACCC with this information. On 28 June 2013, the ACCC varied the BBM RKR to include information for the wholesale ADSL service (which was declared on 14 February 2012). Telstra provided this information to the ACCC on 25 November 2013 in response to a BBM RKR (Rule 15) request given on 13 September 2013. On 17 January 2014, the ACCC requested further explanatory material from Telstra to fully understand and assess the report. Telstra provided the material on 10 February 2014. The materials provided by Telstra to the ACCC under the BBM RKR are collectively referred to as the BBM RKR response.

Disclosure notice

On 11 June 2014, the ACCC gave a disclosure notice to Telstra for the disclosure of information that has been provided under the BBM RKR. The ACCC also published a statement of reasons to accompany the notice.

A 28 day waiting period applies to the disclosure notice. The ACCC has published public extracts on its website and is providing Telstra's BBM RKR response to access seekers that execute a confidentiality undertaking.

Disclosure of the BBM RKR response is required to facilitate consultation on the setting of prices for the seven declared fixed line services as part of this inquiry. Disclosure of Telstra's BBM RKR response to access seekers will enable them to make well informed submissions to this inquiry and provide additional information to assist the ACCC in setting prices for the seven declared fixed line services.

Cost allocation submission by Telstra

As discussed in chapter 3, Telstra has proposed an alternative cost allocation approach to that adopted in the FLSM. Telstra submitted its proposed cost allocation approach on 4 July 2014. A confidential version of the cost allocation framework will be made available to access seekers that execute the confidentiality undertakings with Telstra. Access seekers will be able to use

¹² ACCC, *Inquiry to make final access determinations for the declared fixed line services – final report*, July 2011, p. 130.

the confidential information only for the purpose of making submissions to this inquiry. A public version of Telstra's cost allocation proposal is on the ACCC website.

1.4 Consultation process

Public inquiry

The ACCC is required to hold a public inquiry before making a FAD.¹³ The publication of this discussion paper marks the commencement of the part of the public inquiry into the making of the FAD primary price terms for the seven declared fixed line services.

Submission and information details

Interested parties are invited to provide submissions to the ACCC on the issues outlined in the discussion paper. Submissions should be provided to the ACCC by **5 pm on 26 September 2014**.

All submissions will be considered as public submissions and will be posted on the ACCC's website. Interested parties wishing to submit commercial-in-confidence material to the ACCC should submit both a public and a commercial-in-confidence version of their submission. The public version of the submission should clearly identify the commercial-in-confidence material by bookending the confidential material with an appropriate symbol or 'c-i-c'.

The ACCC expects that claims for commercial-in-confidence status of information by parties will be limited in order to promote transparency and broad participation in this consultation process.

Where access seekers include Telstra's confidential information in a submission they should clearly identify that information and mark it 'c-i-c to Telstra'. A public version of the submission with the confidential information redacted should be provided.

The ACCC has published a Confidentiality Guideline which sets out the process parties should follow when submitting confidential information to communications inquiries commenced by the ACCC. The Guideline describes the ACCC's legal obligations with respect to confidential information, the process for submitting confidential information and how the ACCC will treat confidential information provided in submissions. A copy of the Guideline can be downloaded from [the ACCC's website](#).

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 on the collection, use and disclosure of information. A copy of the guideline can be downloaded from the ACCC's website.

The ACCC prefers to receive submissions in electronic form with searchable text in either PDF or Microsoft Word format. Submitters should ensure that redacted information is not searchable.

Please email submissions by **5 pm on 26 September 2014** to:

Jane.Goldwater@acc.gov.au

cc: fixedservices@acc.gov.au

cc: Robert.Wright@acc.gov.au

If you have any questions concerning the consultation process, please contact Jane Goldwater, Director – Access Pricing and Financial Analysis, on (03) 9290-1493 or at the above email address.

¹³ Section 152BCH of the CCA

Next steps

To assist interested parties in making submissions the ACCC intends to hold a technical workshop on the FLSM, Telstra's proposed cost allocation model and Telstra's BBM RKR response in August 2014. Attendance at the workshop will be limited to access seekers who have entered into a confidentiality undertaking under the section 151BUA(2) notice the ACCC gave to Telstra on 11 June 2014. Further information about the workshop will be released shortly.

At this stage, the ACCC expects to release a draft report for comment in late 2014. When the submissions are received on this discussion paper the ACCC will consider whether there is a need to consult further before releasing its draft decision. The ACCC expects to make the FADs by mid-2015.

2 BBM RKR response

Key Points

- The ACCC established the Building Block Model (BBM) Record Keeping Rules (RKR) for collecting from Telstra information required for determining prices for the declared fixed line services using the ACCC's Fixed Line Services Model (FLSM).
- Telstra provided its capital and operating expenditure and demand forecasts for the five-year forecast period (2014–15 to 2018–19) under the BBMRKR.
- Telstra also provided information regarding its forecasting methodology. Broadly:
 - capital expenditure forecasts were estimated using a bottom-up approach by observing past trends in investment in fixed line network assets at a project level.
 - operating expenditure forecasts were estimated based on Telstra's recent budget estimates for its relevant operation areas.
 - demand forecasts were estimated using similar approaches adopted for Telstra's planning processes.
- Telstra prepared its BBM RKR forecasts on the basis of its assumptions of the impact of National Broadband Network (NBN) rollout on the fixed line network based on the NBN rollout schedule as at June 2013, which was prepared under the assumption of the fibre-to-the-premises (FTTP) architecture.
- The ACCC considers that given that Telstra's NBN assumptions for preparing its BBM RKR forecasts are based on out-of-date information and do not reflect the mixed-technology-model (MTM) architecture adopted under the revised NBN policy, Telstra's BBM RKR forecasts will need to be updated.
- However, due to uncertainty around the implementation of the MTM NBN and the NBN rollout schedule, it is unknown when Telstra will have the information needed to update those forecasts.
- The ACCC seeks stakeholders' views regarding:
 - pricing options for addressing NBN rollout uncertainty in setting FAD prices
 - reasonableness of Telstra's expenditure and demand forecasts and forecasting methodology.

2.1 BBM RKR information provision

2.1.1 Background

The ACCC used a Building Block Model (BBM), being the Fixed Line Services Model (FLSM), to determine the prices for the declared fixed line services¹⁴ in the 2011 fixed line services final access determinations (FADs) and 2013 Wholesale ADSL FADs.

To effectively implement the FLSM, the ACCC requires forecast and actual data from Telstra relating to operating expenditure, capital expenditure, depreciation and demand. In the absence of a formal mechanism for collecting this data, the ACCC had to rely on data collected

¹⁴ They are ULLS, LSS, WLR, LCS and PSTN OTA.

from Telstra on an ad hoc basis and data collected from other sources, principally the Regulatory Accounting Framework (RAF).¹⁵

To ensure it has the necessary information for its regulatory functions, the ACCC made the BBM Record Keeping Rule (RKR) (see section 1.3). The BBM RKR (Rule 15) requires Telstra to provide the following information in response to request from the ACCC in the context of a pricing review:

- historic cost by vintage for each FLSM Asset Class and written down values by vintage for each FLSM Asset Class (Rule 7)
- forecast information regarding:
 - total annual operating expenditure specified for each FLSM Asset Class (Rule 8(a))
 - total annual capital expenditure specified for each FLSM Asset Class (Rule 8(b))
 - annual demand for the specified fixed line services (Rule 8(c))
 - annual demand in relation to retail and wholesale ADSL services (Rule 8(d))
 - total Asset Lives for forecast Capital Expenditure for each FLSM Asset Class (Rule 8(e))
- explanatory statements outlining Telstra's forecasting methodology with respect to forecasts on capital expenditure, operating expenditure and demand (Rules 9 to 12)
- with respect to capital expenditure, operating expenditure and demand, a report (comparison statement) that compares forecasts for the previous regulatory period with actuals for that period, and an explanation of any differences, trends and drivers (Rules 10(c), 11(b) and 12(c)).

This is the first occasion on which the ACCC has used the BBM RKR to collect forecast information from Telstra. The ACCC has worked with Telstra closely both in the lead up to and following the information request to ensure the information provided meets the requirement of the BBM RKR and is suitable to use in the Fixed Line Services Model (FLSM). The first time nature of this process is one factor that has contributed to the need for the ACCC to extend the inquiry process.

2.1.2 BBM RKR information request, response and disclosure

On 11 July 2013 the ACCC commenced a public inquiry into making FADs for the declared fixed line services and the Wholesale ADSL service.

On 13 September 2013, the ACCC issued Telstra with a written request¹⁶ to provide required forecast information for the five year period from 2014–15 to 2018–19 (forecast period) as well as the other information specified under Rules 7 to 12 of the BBM RKR (see above). The ACCC noted in the request that Telstra's BBM RKR response should provide sufficient details to demonstrate the reasonableness of the forecasts and identify any information provided which relates to National Broadband Network activities (e.g. expenditures to meet obligations under its Definitive Agreements). On 25 November 2013, the ACCC received Telstra's

¹⁵ More information for the Regulatory Accounting Framework is available at the ACCC's website at: <https://www.accc.gov.au/regulated-infrastructure/communications/monitoring-reporting/regulatory-accounting-framework>

¹⁶ Telstra, Letter *Re: Final Access Determinations (FADs) Inquiry — information request under the BBM RKR*, 13 September 2013, available at: <http://www.accc.gov.au/system/files/ACCC%27s%20letter%20to%20Telstra%20regarding%20information%20request%20under%20the%20BBM%20RKR.pdf>

response to the BBM RKR information request (November response). Telstra provided forecasts for capital expenditure, operating expenditure and demand for 2013–14 and the following five year period (2014–15 to 2018–19). Telstra also provided information regarding the methodology it used to prepare its forecasts.

Telstra noted that because it did not provide the forecasts for the period of 2010–11 to 2012–13 under the BBM RKR in the previous FAD inquiry, it was not able to provide the comparison statements as required in the BBM RKR. Instead, Telstra has provided a comparison of actual expenditure for 2010–11 to 2012–13 using the same methodology as that used by the ACCC to make the FLSM forecasts for those years (the details of the methodology can be found in the final Report of the 2011 FAD). Also, Telstra did not provide a comparison for 2013–14 because this information was not available at the time of its BBM RKR response.

On 5 December 2013, the ACCC wrote to Telstra, stating that, subject to certain necessary clarifying information, it considered that Telstra had met the BBM RKR requirement.¹⁷ The ACCC also noted the need for Telstra to update its forecasts to adjust for changes made to the NBN architecture and rollout when that information becomes available.

On 17 January 2014, the ACCC requested that Telstra provide further information to clarify and support its November response.¹⁸ On 10 February 2014, Telstra provided additional information in response to the ACCC's request.

The information Telstra provided under the BBM RKR is the subject of a disclosure notice the ACCC gave to Telstra pursuant to the subsection 151BUA(2) on 11 June 2014 (see section 1.3).¹⁹ As per the disclosure notice the ACCC has published public extracts on its website and provided Telstra's confidential information to access seekers who execute a confidentiality undertaking after 9 July 2014.

2.1.3 Telstra's BBM RKR response and NBN uncertainty

The National Broadband Network (NBN) rollout will impact on services supplied on Telstra's legacy fixed line network. As set out in Telstra's migration plan (approved by the ACCC on 27 February 2012), Telstra will progressively migrate voice and broadband services from its copper and HFC networks to the NBN as the NBN network is rolled out. Demand for Telstra fixed line voice and broadband services will decline during the rollout of the NBN and this is likely to affect Telstra's expenditure on its fixed network.

Telstra's BBM RKR forecasts were prepared based on Telstra's 'information, processes and views of likely development as at 30 June 2013' (used within Telstra's business planning cycle for 2013–14), which were based on the NBN Co's publicly announced rollout timetable as at that time.²⁰ This means Telstra's forecasts are based on the previous NBN policy (i.e. fibre-to-the-premises (FTTP) architecture) and NBN rollout timetable based on implementing that policy.

Since the September 2013 Federal Election, the government has announced significant changes to the NBN policy—including adoption of a multi-technology-mix (MTM) in place of the

¹⁷ ACCC, *Letter Re: Final Access Determinations (FADs) Inquiry — information request under the BBM RKR*, 5 December 2013, available at:

<http://www.accc.gov.au/system/files/ACCC%20letter%20to%20Telstra%20-%20%20Telstra%20response%20to%20information%20request%20under%20the%20BBM%20RKR.pdf>

¹⁸ ACCC, *Letter Re: Final Access Determinations (FADs) Inquiry — information request under the BBM RKR*, 17 January 2014, available at:

<http://www.accc.gov.au/system/files/Letter%20to%20Telstra%20%E2%80%93%20Request%20for%20further%20information%20under%20the%20BBM%20RKR.pdf>

¹⁹ ACCC, *Disclosure notice to Telstra, Notice pursuant to subsection 151BUA(2)*, 11 June 2014, available at: <http://www.accc.gov.au/system/files/Disclosure%20notice%20given%20to%20Telstra%20regarding%20BBM%20RKR%20information.pdf>

²⁰ Telstra BBM RKR explanatory information 25 November 2013, p. 5.

FTTP.²¹ The switch to the MTM and consequent changes to NBN Co's corporate plan and the NBN roll out schedule mean that Telstra's BBM RKR forecasts are based on out-of-date assumptions and information.²²

The ACCC raised this issue in its letter to Telstra of 5 December 2013.²³ Telstra acknowledges the need to update the BBM RKR forecasts when there is more certainty regarding the NBN. In particular, reliable expenditure and demand forecasts cannot be made until NBN Co announces its rollout schedule for the MTM NBN.

The ACCC considers that a revised NBN rollout schedule is contingent on government and NBN Co announcing details of the MTM NBN which are subject to the renegotiation of Definitive Agreements (DAs) by Telstra, NBN Co and the government. In particular, the renegotiation of DAs may have impact on the NBN rollout schedule, the type and/or quantum of Telstra's expenditure on its fixed line network over the forecast period, and cost allocations with the FLSM.

It is therefore unclear when Telstra will have up-to-date information on the NBN, on the basis of which it needs to develop revised BBM RKR forecasts. This may create some difficulties for the ACCC in making price terms for the FADs, even within the extended inquiry period to mid-2015. The ACCC is therefore considering possible approaches to making the FADs if circumstances arise where it is necessary for it to reach a trade-off between the timeliness of the updated forecasts and the level of details and precision of the forecasts. The ACCC seeks stakeholder views on alternatives approaches that might include:

- estimating prices using forecasts in Telstra's BBM RKR response
- excluding all impacts of NBN rollout (on demand and expenditure) when setting FAD prices
- maintaining the current FAD price level in the next FADs and vary the FADs when information about the NBN rollout becomes available (that is, a rollout timetable for specific geographic areas and specific technology used)
- making the next FADs (maintaining the current FAD prices) for a short (one or two year) term.

The ACCC seeks views on:

1. What are possible approaches for addressing the consequences of uncertainty regarding the NBN for estimating the BBM RKR forecasts as well as setting FAD prices?

2.2 Capital expenditure forecasts

This section outlines Telstra's BBM RKR capital expenditure forecasts and the methodology used by Telstra for estimating the forecasts.

²¹ The MTM involves building an optimised NBN by 'choosing the most economically efficient technology according to geo-type, housing stock, existing infrastructure and user demand.' This contrasts with the HTTP approach adopted under the previous Labour government.

²² This was adopted by the Government upon recommendation of NBN Co's Strategic Review.

²³ ACCC, Letter *Re: Final Access Determinations (FADs) Inquiry — information request under the BBM RKR*, 5 December 2013, available at:

<http://www.accc.gov.au/system/files/ACCC%20letter%20to%20Telstra%20-%20%20Telstra%20response%20to%20information%20request%20under%20the%20BBM%20RKR.pdf>

2.2.1 Overview of forecasts

Telstra has provided the following information in relation to its forecast capital expenditure:

- capital expenditure forecasts for each FLSM CAN and Core asset class for the period of 2013-14 to 2018-19 and inflation forecasts for that period
- the Explanatory Statement outlining Telstra's forecasting methodology²⁴
- the Comparison Statement which
 - outlines the previous ACCC's capital expenditure forecasting methodology adopted in the current FADs
 - provides comparisons of the previous FAD capital expenditure forecasts and actuals for the period of 2010–11 to 2012–13 (comparison period) produced using the above methodology
- additional information on breakdown of BBM RKR capital expenditure forecasts by drivers and by top 10 investment programs.

The chart below shows the previous forecast and actual aggregate capital expenditure for the FLSM CAN and Core asset classes for the current FAD period (2011–12 to 2013–14) and Telstra's BBM RKR capital expenditure forecasts for the period of 2014–15 to 2018–19.²⁵ All figures shown are in real terms (i.e. 1 July 2009 dollars).

Figure 2.1 Comparison of capital expenditure: previous forecasts, previous actuals and Telstra's forecasts (\$m as at 1 July 2009) [c-i-c starts]



²⁴ The explanatory statement was provided as a separate excerpt to the main BBM RKR explanatory statement.

²⁵ Telstra has not provided actuals for 2013-14 as this information was not available at the time of the BBM RKR information request. Telstra however has provided forecasts for 2013-14 as part of its BBM RKR forecasts.

[REDACTED]

[REDACTED]

[c-i-c ends]

2.2.2 Forecasting methodology and assumptions

Methodology

Telstra's BBM RKR capital expenditure forecasts were prepared using a 'bottom up' forecasting methodology. Telstra first identified the asset categories in its internal management account that correspond to the FLSM CAN and Core asset classes, and then identified relevant projects (IMC Codes²⁶) that involve expenditure on those asset categories. Telstra then separately estimated capital expenditure forecasts for each of these projects. Telstra noted that in estimating project-level capital expenditure forecasts, it has taken into account recent historic trends, trends in demand, the impact of NBN rollout and Telstra's broad capital planning and strategic direction.²⁷ Finally, Telstra mapped these project-level forecasts to FLSM asset classes for the CAN and Core networks.

In identifying what projects are relevant for the purpose of estimating the capital expenditure forecasts, Telstra has excluded projects that:²⁸

- are related to the NBN,²⁹ or
- are expected to be completed in 2013–14 before the next FADs commence, or
- involve a small or highly irregular amount of expenditure relevant to the fixed line network.

These excluded projects are estimated to cost [c-i-c starts] [REDACTED] [c-i-c ends] for 2013–14 and [c-i-c starts] [REDACTED] [c-i-c ends] for 2014–15.³⁰

Telstra has identified [c-i-c starts] [REDACTED] [c-i-c ends]³¹ IMC programs that contribute to the total capital expenditure forecasts over the forecast period and has provided details for the top 10 programs that contribute the most to the expenditure. These top 10 programs account for [c-i-c starts] [REDACTED] [c-i-c ends]³² of forecast capital expenditure over the forecast period. A description of these top 10 programs is also provided.³³

For each of the top 10 programs, Telstra has determined its capital expenditure forecasts for the first year of the forecast period (2014–15) by first calculating the average level of

²⁶ Telstra groups capital projects into programs using program-specific codes (IMC Codes).

²⁷ Telstra, *Final Access Determinations (FADs) Inquiry – confidential response to information request under the BBM RKR (separate excerpt for capital expenditure)*, June 2014, p. 26.

²⁸ Ibid.

²⁹ This relates to investment Telstra is making to facilitate its utilisation of the NBN as a service provider as well as specific capital projects that Telstra is undertaking as a supplier of services and infrastructure to NBN Co.

³⁰ Telstra, *Final Access Determinations (FADs) Inquiry – confidential response to information request under the BBM RKR (separate excerpt for capital expenditure)*, June 2014, p. 29.

³¹ Telstra, *Final Access Determinations (FADs) Inquiry – additional information in response to information request under the BBM RKR (confidential version)*, February 2014, p. 21.

³² Ibid

³³ Telstra, *Final Access Determinations (FADs) Inquiry – additional information in response to information request under the BBM RKR (confidential version)*, Table 21, February 2014, p. 21.

expenditure on the program over the three years to 2013–14 and then adjusting the three year average for the program on the basis of whether the recent trend (over the past three years) was up or down.³⁴ [c-i-c starts]

[c-i-c ends]³⁵

The ACCC notes that the details provided on Telstra’s forecasting method for the top 10 programs do not appear to fully explain the trends in Telstra’s total capital expenditure forecast,

[c-i-c starts]

[c-i-c ends] Telstra has forecast the total capital expenditure to [c-i-c starts]decline by [c-i-c ends] per cent in 2015–16 in nominal (real) terms from the level in 2014–15.³⁶ The ACCC sought clarification from Telstra regarding this issue. Telstra explained that it is because the total capital expenditure includes both ongoing programs (for example, the top 10 programs) and terminating programs (for example, top-hat) and some terminating programs are expected to retire in 2014–15 and are therefore not included in the forecasts for the period after that year.

Assumptions

Telstra stated that it has not made any allowance in its capital expenditure forecasts to account for expenditure which cannot be foreseen (e.g. South Brisbane Exchange Project³⁷) or accurately quantified (e.g. Warrnambool exchange fire), with the exception of an allowance of [c-i-c starts] [c-i-c ends] per annum for disaster rectification.³⁸

Telstra also stated it has taken into account the impact of the NBN rollout and that its capital expenditure forecasts reflects its view of the NBN rollout (and its impact on Telstra’s fixed line network capital expenditure) as at June 2013.³⁹ Telstra noted that the forecast capital expenditure reflect investment primarily intended for managing migration from the legacy copper network to the NBN through maintaining existing service levels while minimising investments in assets that will become stranded following the rollout of the NBN.⁴⁰ The ACCC notes however that Telstra has not included any information in its BBM RKR response on the quantum of the impact (if any) of the NBN rollout on its capital expenditure forecasts.

2.2.3 Key drivers

Telstra has identified, in the Explanatory Statement, four drivers of its forecast capital expenditure: ‘demand’, ‘asset replacement and operational support (AROS)’, ‘capitalised interest’⁴¹, and ‘discretionary’, and has provided a breakdown of the total capital expenditure

³⁴ [c-i-c starts]

[c-i-c ends]

³⁵ Telstra, *Final Access Determinations (FADs) Inquiry – additional information in response to information request under the BBM RKR (confidential version)*, February 2014, pp. 23 and 24.

³⁶ This is calculated based on Telstra’s capital expenditure forecasts and forecast CPI.

³⁷ Telstra stated the South Brisbane Exchange Project involved unforeseen capital expenditure of approximately [c-i-c starts] [c-i-c ends] between 2010–11 to 2012–13 as a result of the construction of a Children’s Hospital on a site occupied by the former South Brisbane Exchange.

³⁸ Telstra, *Final Access Determinations (FADs) Inquiry – confidential response to information request under the BBM RKR (separate excerpt for capital expenditure)*, June 2014, p. 34.

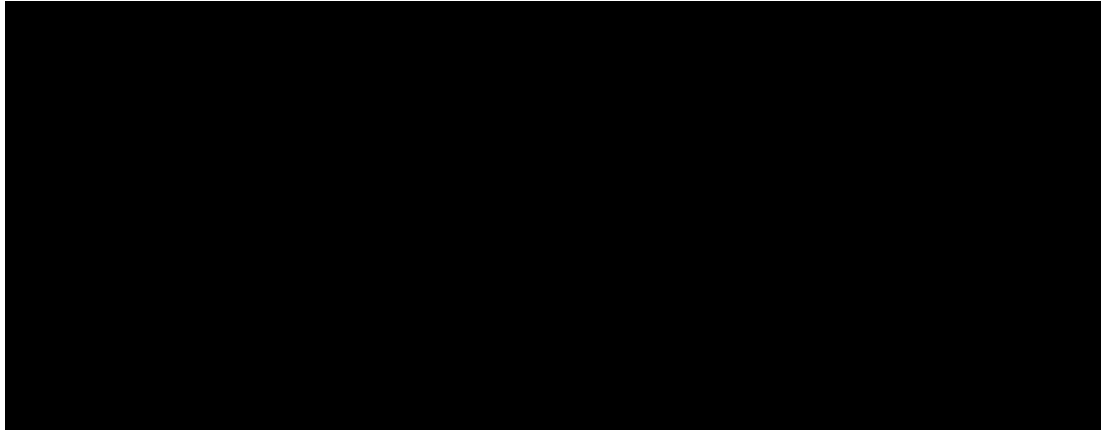
³⁹ Ibid

⁴⁰ Ibid

⁴¹ Capitalised interest pertains to the financing costs incurred during the construction period of capital expenditure. In other words, the capitalised interest amount compensates Telstra for the cost of funds employed in financing capital expenditure during the construction period up until the commissioning date. The ACCC has allowed NBN Co to recoup its capital expenditure financing costs via an Annual Construction In Progress Allowance. (NBN Co, *NBN Co Special Access Undertaking given to the ACCC in accordance with Part XIC of the Competition and Consumer Act (Cth) 18 December 2012 varied on 18 November 2013*, p. 134.) While the forecast interest cost is an extrapolated average annual cost over the preceding 3 years, it is unclear how Telstra calculates the capitalised interest cost per annum – for

forecasts by those drivers for the forecast period.⁴² In addition, Telstra has provided a breakdown to the FLSM asset class level of capital expenditure forecast by the drivers for 2013–14 in response to ACCC’s request for further information.⁴³ The chart below shows a breakdown of CAN and Core capital expenditure by the four drivers for 2013–14.

Figure 2.2 Breakdown of 2013-14 capital expenditure by drivers (\$ million nominal)
[c-i-c starts]



[Redacted line]

[c-i-c ends]

‘Demand’ driven capital expenditure accounts for around **[c-i-c starts]** **[c-i-c ends]** per cent of forecast total capital expenditure.⁴⁴ It is forecast to **[c-i-c starts]** **[c-i-c ends]** **[c-i-c ends]** between 2013–14 and 2018–19.⁴⁵

Telstra explained that increased broadband data traffic is the major ‘demand’ driver and that new basic telephone connections, which are driven by greenfield and brownfield developments, wholesale customer orders and Telstra retail orders, are also significant.⁴⁶ This seems to be reflected in the distribution of forecast capital expenditure across the FLSM asset classes. For the CAN network, the majority of forecast capital expenditure is concentrated in the **[c-i-c starts]** **[c-i-c ends]** asset classes, which likely reflects demand driven expenditure related to Telstra connecting new services. The majority of capital expenditure on the Core network is concentrated in the asset classes associated with augmenting network capacity to accommodate increased broadband traffic, **[c-i-c starts]** **[c-i-c ends]**.

example, it is unclear what proxy is used for the interest rate and how Telstra estimates the (average) construction period during which the financing cost is incurred.

⁴² Telstra, *Final Access Determinations (FADs) Inquiry – confidential response to information request under the BBM RKR (separate excerpt for capital expenditure)*, June 2014, Table 8, p. 45.

⁴³ Telstra, *Final Access Determinations (FADs) Inquiry – additional information in response to information request under the BBM RKR (confidential version)*, February 2014, Table 20, p. 20.

⁴⁴ Telstra, *Final Access Determinations (FADs) Inquiry – confidential response to information request under the BBM RKR (separate excerpt for capital expenditure)*, June 2014, p. 44.

⁴⁵ Telstra, *Final Access Determinations (FADs) Inquiry – confidential response to information request under the BBM RKR (separate excerpt for capital expenditure)*, June 2014, Table 8, p. 45.

⁴⁶ Telstra, *Final Access Determinations (FADs) Inquiry – confidential response to information request under the BBM RKR (separate excerpt for capital expenditure)*, June 2014, pp. 45-46.

'AROS' is the next largest capital expenditure driver, which accounts for approximately [c-i-c starts] [redacted] [c-i-c ends] per cent of the forecast total capital expenditure.⁴⁷ Telstra has forecast 'AROS' related capital expenditure to [c-i-c starts] [redacted] [c-i-c ends] and then to [c-i-c starts] [redacted] [c-i-c ends] in the period of 2013-14 to 2015-16. For the period of 2015-16 to 2018-19, 'AROS' related expenditure is forecast to remain quite [c-i-c starts] [redacted] [c-i-c ends].

'Capitalised interest' and 'discretionary spending' account for around [c-i-c starts] [redacted] [c-i-c ends] per cent of the forecast total capital expenditure combined.⁴⁸

2.2.4 Key observations

Differences in Telstra's methodology and the ACCC's previous methodology

Telstra's forecasting methodology for BBM RKR capital expenditure forecasts is quite different to the methodology for the 2011 FADs. The ACCC notes that it is important for interested parties to keep this in mind when considering capital expenditure forecast for the next regulatory period.

In the 2011 fixed line services FADs, the ACCC used capital expenditure forecasts supplied by Telstra for 2010-11 (the year prior to the commencement of the 2011 FADs) to estimate the capital expenditure forecasts for most FLSM asset classes (one exception is 'Indirect capital assets', which is discussed in more details below). However, as stated by Telstra in the Comparison Statement, the forecast it provided at that time 'did not account for a number of project specific factors'.⁴⁹ The ACCC then uplifted Telstra's forecast for 2010-11 by a [c-i-c starts] [redacted] [c-i-c ends] nominal growth rate annually (to each asset class's forecast), based on advice from Telstra.⁵⁰ Further details on the previous methodology can be found in the ACCC's April 2011 Discussion Paper and July 2011 Final Report for the 2011 FADs.

In the Comparison Statement, Telstra provided the estimates of forecast and actual capital expenditure for the comparison period (2010-11 to 2012-13) prepared using the previous ACCC methodology. As shown in figure 2.1, the estimates for both the forecasts and actuals are [c-i-c starts] [redacted] [c-i-c ends] than Telstra's BBM RKR capital expenditure forecasts for the next period.

One example of how different methodologies may have resulted in 'step changes' in the previous FAD and Telstra's BBM RKR forecasts is the 'Indirect capital assets'. This asset class contains a wide range of 'overheads' type assets used indirectly in the provision of declared services. In the 2011 FAD inquiry, the ACCC estimated capital forecasts for this asset class by assuming the expenditure would be equal to depreciation, in the absence of any detailed, disaggregated information from Telstra on the type of assets that should be included in this asset class or capital expenditure forecasts related to those assets. This approach resulted in 'indirect capital assets' contributing a large share of the total capital expenditure in the previous FADs (around [c-i-c starts] [redacted] [c-i-c ends] in 2013-14).⁵¹ Telstra noted it has made [c-i-c starts] [redacted] [c-i-c ends] the forecast in the

⁴⁷ Telstra, *Final Access Determinations (FADs) Inquiry – confidential response to information request under the BBM RKR (separate excerpt for capital expenditure)*, June 2014, p. 44.

⁴⁸ This is driven directly by costs of borrowing to fund the various projects included in the FLSM forecasts. Telstra has held this constant at the level of past three year average when estimates the forecasts.

⁴⁹ Telstra, *Final Access Determinations (FADs) Inquiry – confidential response to information request under the BBM RKR (comparison statement)*, February 2014, p. 20.

⁵⁰ ACCC, *Inquiry to make final access determinations for the declared fixed line services – final report*, July 2011, p. 52.

⁵¹ Telstra, *Final Access Determinations (FADs) Inquiry – confidential response to information request under the BBM RKR (comparison statement)*, February 2014, pp. 7-11.

2011 FADs.⁵² In contrast, the Telstra's BBM RKR capital expenditure forecasts contain a relatively [c-i-c starts] [c-i-c ends].⁵³

Given the differences in the two methodologies, the ACCC considers that it may be difficult to reconcile the actual and forecast capital expenditure across the current and next FAD periods, which may otherwise provide a starting point for assessing those forecasts.

As noted previously, Telstra has not provided actual expenditure data for 2013–14 in its BBM RKR response as this data was not available at that time. The ACCC considers that it may be useful if such data, when available, could be provided, which is prepared on the same basis as Telstra's BBM RKR forecasts. This would enable a 'like-for-like' comparison of forecasts for the next regulatory period with the 2013-14 actuals.

Impact of NBN rollout on forecast capital expenditure

As discussed previously, Telstra stated its capital expenditure forecasts reflect its view of NBN rollout as at June 2013. While Telstra has excluded NBN related projects from its capital expenditure forecast, it is not clear, from the information in the BBM RKR response, whether the impact (if any) of declining demand for voice services associated with the NBN rollout has been taken into account by Telstra in preparing the capital expenditure forecasts. The forecast trend in capital expenditure for the period of 2015–16 to 2018–19 indicates a broadly [c-i-c starts] [c-i-c ends] assumption.

Telstra states that a significant part of its capital expenditure forecast is driven by fixed broadband data traffic growth, particularly ADSL data traffic, which is forecast to increase significantly over the forecast period. However, it is unclear to what extent the impact of the data traffic growth will be offset by the impact of migration of both broadband and voice services onto the NBN.

The ACCC notes that Telstra's approach for taking into account the impact of the NBN rollout with respect to capital expenditure forecasts⁵⁴ also appears to differ from its approach in relation to demand forecasts. In estimating demand forecasts, Telstra has adopted specific NBN rollout assumptions (for example, around [c-i-c starts] [c-i-c ends] brownfield NBN fibre connections by 2018–19),⁵⁵ and has explicitly factored into the demand forecasts the assumed loss in fixed line services in operations (SIOs) due to the NBN rollout (discussed in section 2.4).

The ACCC considers that adopting seemingly inconsistent approaches may potentially have an impact on setting the FAD prices for the declared services. However as discussed previously, Telstra's BBM RKR forecasts will likely need to be updated to reflect the revised NBN policy and rollout schedule. The ACCC therefore considers that this process will provide an opportunity for Telstra to provide further details explaining its assumptions/approach regarding this issue.

2.2.5 Issues for consultation

The ACCC seeks views on:

2. Whether Telstra's forecasting methodology for capital expenditure is reasonable having regard to the to the LTIE,⁵⁶ particularly in respect of the objective of encouraging the

⁵² Telstra, *Final Access Determinations (FADs) Inquiry – confidential response to information request under the BBM RKR (comparison statement)*, February 2014, p. 20.

⁵³ This is calculated based on Telstra's BBM RKR capital expenditure forecasts.

⁵⁴ This is also the case in relation to the operating expenditure forecasts (see section 2.3).

⁵⁵ Telstra, *Final Access Determinations (FADs) Inquiry – additional information in response to information request under the BBM RKR (confidential version)*, Figures 1-3, February 2014, p. 60.

⁵⁶ 152BCA(1)(a) of the CCA.

economically efficient use of and investment in infrastructure used to provide the services, and the matters⁵⁷ that the ACCC must take into account when making the FADs. Are there any alternative approaches that are likely to give a measurably better outcome having regard to the LTIE and the other matters⁵⁸ that the ACCC must take into account? Is it appropriate for Telstra to include 'capitalised interest' in its forecast capital expenditure, on the basis of recover the financing cost incurred during the construction period of capital expenditure?

3. How should Telstra's BBM RKR capital expenditure forecasts for the period of 2014–15 to 2018–19 be assessed against prudence and efficiency criteria? What factors should the ACCC consider when assessing the prudence and efficiency of Telstra's forecast capital expenditure?
4. What is the likely impact of the NBN rollout on Telstra's capital expenditure on its CAN and Core networks and how should this be taken into account in forecasting capital expenditure?
5. To what extent will the impact of increasing demand for broadband data traffic and mobile services offset the impact of falling demand for voice and broadband services on capital expenditure needs?
6. Does the information provided on the top 10 IMC programs in the BBM RKR response provide adequate quantitative support for the capital expenditure forecasts?

2.3 Operating expenditure forecasts

This section outlines Telstra's BBM RKR operating expenditure forecasts and the methodology used for estimating the operating expenditure forecasts.

2.3.1 Overview of forecasts

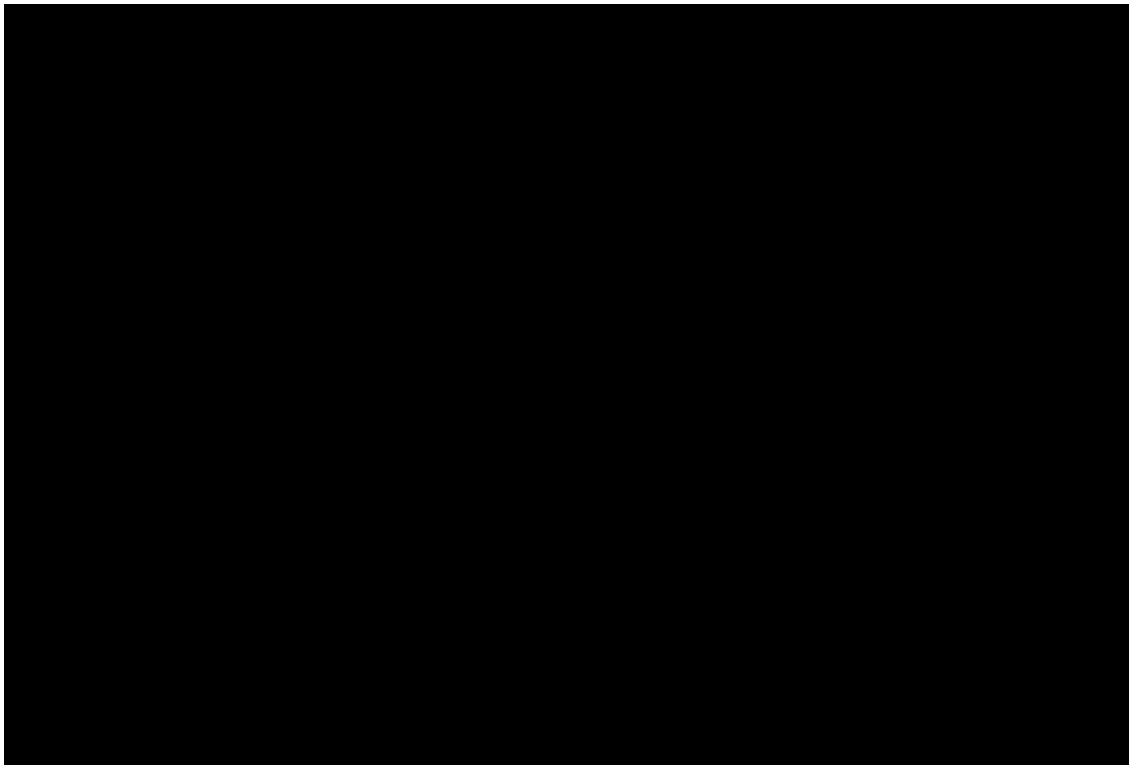
Telstra has provided the following information in relation to its forecast operating expenditure in its BBM RKR response:

- operating expenditure forecasts (in nominal terms) for the period 2013–14 to 2018–19 for each FLSM asset classes (i.e. CAN, Core and indirect) - Attachment C of Telstra's BBM RKR response
- the Explanatory Statement outlining Telstra's forecasting methodology for estimating the operating expenditure forecasts
- the Comparison Statement which
 - outlines the previous ACCC operating expenditure forecasting methodology adopted in the 2011 FADs (and 2013 Wholesale ADSL FAD), and
 - provides comparisons of the previous FAD operating expenditure forecasts and actuals for the period of 2010–11 to 2012–13, produced using the above methodology
- additional information on the breakdown of operating expenditure forecasts by cost areas/drivers and cost types.

⁵⁷ 152BCA(1)(b)-(g) of the CCA.

The chart below shows the previous forecast and actual aggregate operating expenditure for the FLSM CAN and Core asset classes for the previous FADs (that is 2011–12 to 2013–14) and Telstra’s BBM RKR operating expenditure forecasts for the period of 2014–15 to 2018–19.⁵⁹ The costs shown in the chart includes costs attributed to ‘data equipment’ (this asset class was first introduced in the 2013 wholesale ADSL FAD). All figures shown are in real terms (in 2008–09 dollars).

Figure 2.3 Comparison of operating expenditure: previous forecasts, previous actuals and Telstra’s BBM RKR forecasts (\$m as at 1 July 2009) [c-i-c starts]



[c-i-c ends]

Telstra’s BBM RKR operating expenditure forecasts are [c-i-c starts] [c-i-c ends] than both the previous forecasts and Telstra’s actual operating expenditure for 2011–12 and 2012–13.

Telstra’s BBM RKR forecasts for 2014–15 are [c-i-c starts] lo [c-i-c ends] in real (nominal) terms.⁶⁰ The [c-i-c starts] [c-i-c ends] indirect operating expenditure and Core direct operating expenditure in the BBM RKR forecasts.

The actual operating expenditures for 2011–12 and 2012–13 were also [c-i-c starts] [c-i-c ends] than the forecasts used to set prices for the 2011 and 2013 FADs.

Operating expenditure over the period of 2014–15 to 2018–19 is forecast to [c-i-c starts] [c-i-c ends] in real terms.

⁵⁹ Telstra has not provided actuals for 2013-14 as this information was not available when it prepared the BBM RKR response. Telstra however has provided forecasts for 2013-14 (which is used to form forecasts for 2014-15 to 2018-19 as outlined in section 2.3 below) as part of its BBM RKR response.

⁶⁰ Based on ACCC calculations from information in Telstra BBM RKR Comparison Statement and Attachment C of Excel spreadsheet in Telstra’s BBM RKR response.

2.3.2 Forecasting methodology and assumptions

Telstra has estimated its BBM RKR operating expenditure forecasts using a two-step approach. Telstra first estimated the forecasts for 2013-14 (the base year) using a bottom-up approach. Telstra then [c-i-c starts] [c-i-c ends] in real terms over the forecast period (2014-15 to 2018-19).

Methodology for the base year forecast

The operating expenditure forecast for 2013-14 was estimated predominantly based on Telstra's 2013-14 budget information for relevant cost areas. The total forecast operating expenditure for 2013-14 is [c-i-c starts] [c-i-c ends]⁶¹ (in nominal terms), which consists of expenditure from the following four key elements:⁶²

- Telstra Operations – operating costs directly or indirectly attributable to the relevant FLSM asset classes and relevant fixed line services incurred by Telstra Operations group (excluding 'propex expenditure'). Telstra has included costs from the following five lines of businesses (LOBS) of Telstra Operations group: Customer Service Delivery (CSD), Networks, IT Services (ITS), Services Operations (TSO), Telstra Operations Business Unit Support (BU Support). Two LOBs, i.e. NBN and Network Application and Services (NAS) LOBs, were excluded.
- 'Propex expenditure' – direct and indirect operating costs related to capital projects.
- Telstra Wholesale Group - operating costs attributable to the regulated fixed line services⁶³ as incurred by Telstra Wholesale group.
- 'Mark-up' – reflecting contribution by the above-mentioned three cost elements towards Telstra's un-attributable costs (e.g. corporate overheads).

Operating expenditure is also shown separately for [c-i-c starts] [c-i-c ends]

[c-i-c starts] [c-i-c ends]

- [c-i-c starts] [c-i-c ends]. Telstra has estimated indirect costs as [c-i-c starts] [c-i-c ends]. [c-i-c ends]

Telstra stated that its operating expenditure forecasts include costs relevant to the FLSM asset classes and fixed line services.⁶⁴ Telstra used a bottom-up approach to forecast operating expenditure for the four cost elements:

- Telstra Operations – for each line of business group (except Customer Services Delivery), cost estimates were derived on the basis of 2013-14 budget for that group. For Customer Services Delivery, the 2012-13 actual expenditure (uplifted by the CPI) was used.⁶⁵

⁶¹ Attachment C of Excel spreadsheet in Telstra BBM RKR response.

⁶² The only exception to this approach is the operating expenditure forecast for the 'LSS Equipment' FLSM asset class. Telstra estimated operating expenditure using RAF estimates, a similar approach to that used by the ACCC for the 2011 FADs.

⁶³ They are the ULLS, LSS, WLR, LCS, PSTN OA (now FOAS), PSTN TA (now FTAS) and wholesale ADSL.

⁶⁴ Telstra, *Final Access Determinations (FADs) Inquiry – confidential response to information request under the BBM RKR*, June 2014, p. 10.

⁶⁵ [c-i-c starts] [c-i-c ends]

- ‘Propex expenditure’ – cost estimates were derived based on the BBM RKR capital expenditure forecasts, and the ratio of propex expenditure to capital expenditure attributable to the FLSM asset classes (estimated based on the historical ratios).
- Telstra Wholesale – costs were estimated based on 2013–14 budget for Telstra Wholesale and the proportion of Telstra Wholesale costs attributable to the declared fixed line services [c-i-c starts] [c-i-c ends].⁶⁶
- ‘Mark-up’ – estimated as a mark-up [c-i-c starts] [c-i-c ends] on the total costs for the other three cost elements (that is, Telstra Operations, Telstra Wholesale and ‘propex expenditure’).⁶⁷ The mark-up is based on Telstra Economic Model (TEM)⁶⁸ cost data for 2012-13 and is estimated as the percentage of unattributable costs to total costs (excluding depreciation) for a group of declared fixed line services (including the ULLS, LSS, wholesale ADSL, WLR, LCS, FOAS and FTAS).

Telstra noted that costs for the ‘LSS Equipment’ asset class were estimated separately using a different approach, which is based on costs from the Regulatory Accounting Framework (RAF) data for 2011–12 and 2012–13.⁶⁹ [c-i-c starts]

[c-i-c ends]⁷⁰ [c-i-c ends]

The chart below shows a breakdown of the 2013–14 base year operating expenditure by contributing cost areas.⁷¹

⁶⁶ Telstra, *Final Access Determinations (FADs) Inquiry – confidential response to information request under the BBM RKR*, June 2014, p. 18.

⁶⁷ Telstra, *Final Access Determinations (FADs) Inquiry – confidential response to information request under the BBM RKR*, June 2014, p. 19.

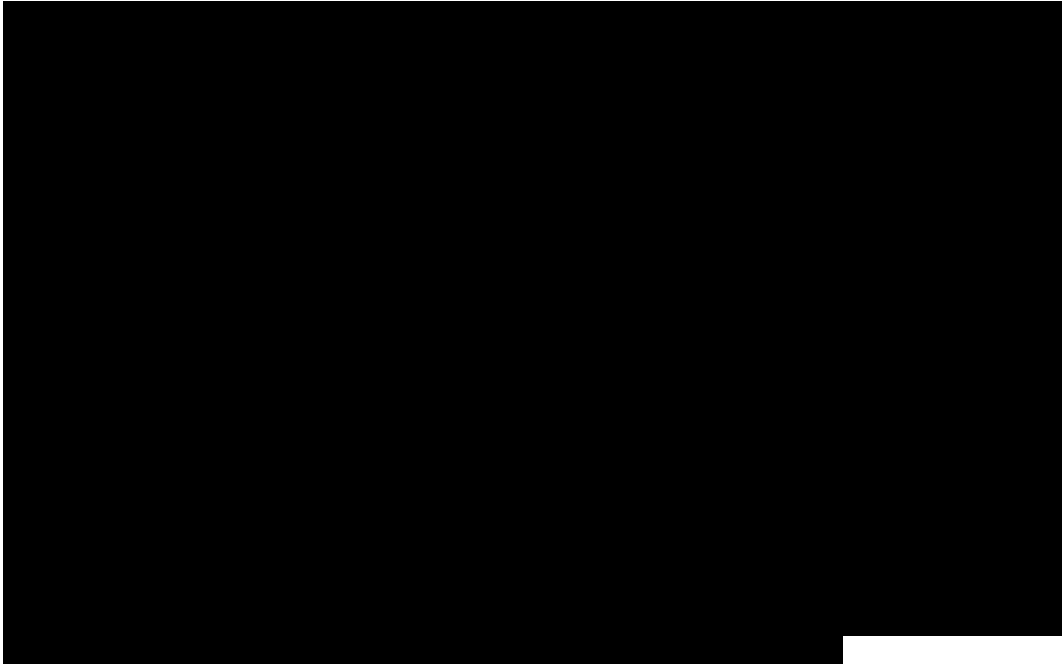
⁶⁸ The Telstra Economic Model (TEM) is a management accounting system used internally by Telstra for its own business planning purposes.

⁶⁹ Telstra, *Final Access Determinations (FADs) Inquiry – confidential response to information request under the BBM RKR*, June 2014, p. 19.

⁷⁰ Telstra, *Final Access Determinations (FADs) inquiry – additional information in response to information request under the BBM RKR (confidential version)*, February 2014, p. 3; *Final Access Determinations (FADs) Inquiry – confidential response to information request under the BBM RKR*, June 2014.

⁷¹ [c-i-c starts] [c-i-c ends]

Figure 2.4 Breakdown of 2013–14 base year operating expenditure by cost areas [c-i-c starts]



Methodology for forecasting the operating expenditure for 2014–15 to 2018–19

Telstra has forecast the base year operating expenditure to [c-i-c starts] [c-i-c ends]

Table 2.1 Telstra BBM RKR operating expenditure forecasts (in nominal and 2013–14 terms) and CPI forecasts [c-i-c starts]

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

[c-i-c ends]

Assumptions

Telstra’s base year (2013–14) operating expenditure forecasts were estimated based on its current operating expenditure level (i.e. budget figures for 2013–14 and actuals for 2012–13), which Telstra [c-i-c starts]

[REDACTED]

[c-i-c ends]

The above said, Telstra has previously noted that a material proportion of its costs are variable, including operating expenditure. These variable costs also include some capital costs and the taxation building block.⁷³ Telstra has also noted that the rate of decline in its fixed line voice outputs was exceeded by the rate of decline in its fixed line voice input costs between FY2004

⁷² Attachment C of Excel spreadsheet in Telstra’s November 2013 BBM RKR response.

⁷³ Telstra, *Response to the Commission’s Issues Paper (a second discussion paper) into the public inquiry to make a final access determination for the wholesale ADSL service*: 24 August 2012, p. 26.

and FY 2009, indicating a high degree of variability of its costs in response to changes in demand.⁷⁴ Therefore, consideration of the possible exhaustion of benefits of cost saving programs may be balanced against possible cost savings if costs are variable and demand is forecast to decline further.

2.3.3 Key drivers

Breakdown of cost categories by cost drivers

Telstra has identified the cost drivers [c-i-c starts] [REDACTED]

[REDACTED]

[c-i-c ends]

Telstra also identified three key factors that impact on changes in operating expenditure year on year. They are briefly outlined below.

[c-i-c starts]

C [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

⁷⁴ Telstra, *Submission in response to the Australian Competition and Consumer Commission's Review of Telstra Price Control Arrangements*, 12 February 2010, pp. 29–30.

[c-i-c ends]

2.3.4 Key observations

Differences in Telstra's methodology and the ACCC's previous methodology

Telstra's forecasting methodology for the BBM RKR operating expenditure forecasts represents a different approach to the previous methodology adopted by the ACCC for the previous FADs. The main area of difference relates to how the base year operating forecast was estimated.

In the previous FADs, the ACCC estimated base year operating expenditure forecasts (both direct and indirect) based on historical cost information reported for the relevant asset classes in Telstra's regulatory accounting framework (RAF) reports.⁷⁵ This contrasts with the bottom-up approach based on budget figures that Telstra used for the BBM RKR forecasts.

For example, a major contributing factor to the cost differences under the two approaches is 'indirect operating expenditure.

In the previous FADs, the ACCC assumed the indirect costs to be 80 per cent (based on Regulatory Accounting Framework data) of the direct costs calculated from the Regulatory Accounting Framework data. As a result, the indirect operating costs were estimated to be

[c-i-c starts] [c-i-c ends]⁷⁶

In the BBM RKR forecasts, Telstra estimated the indirect operating expenditure by identifying costs that cannot be directly attributed to the FLSM asset classes but are related to the provision of the fixed line services. The indirect operating expenditure forecast for 2013–14 is estimated to be [c-i-c starts] [c-i-c ends] the ACCC's forecasts for 2013-14.⁷⁷

[c-i-c starts]

[c-i-c ends]

The ACCC notes that the magnitude of cost differences suggests that the types of costs included under the two methods differ. The BBM RKR methodology appears to be based on a [c-i-c starts] [c-i-c ends] compared to the approach in the previous FADs.

Given the differences in the two methodologies, the ACCC considers that it may be difficult to meaningfully compare the actual⁷⁸ and forecast operating expenditure across the current (that is 2010–11 to 2012–13) and forthcoming FAD periods, which may otherwise provide a starting point for assessing those forecasts.

⁷⁵ ACCC, *Public inquiry to make final access determinations for the declared fixed line services*, Discussion Paper, April 2011, p. 107.

⁷⁶ Based on the operating expenditure forecasts from the previous FADs.

⁷⁷ Based on adjusting operating expenditure forecasts—from Attachment C of Excel spreadsheet in Telstra's BBM RKR response—to real (2008-09) terms using CPI.

⁷⁸ To derive actual operating expenditure for the current FAD period (i.e. 2011-12 and 2012-13) Telstra has adopted the methodology used for forecasting operating expenditure in the previous FADs (see page 28 of the Comparison Statement for more details).

As noted previously, Telstra has not provided actual expenditure data for 2013–14 in its BBM RKR responses as this data was not available at the time of the information request. The ACCC considers that it may be useful if such data, when available, could be provided, which is prepared on the same basis as Telstra’s BBM RKR forecasts. This would enable a ‘like-for-like’ comparison of forecasts for the next regulatory period with the 2013–14 actuals.

Impact of NBN rollout on operating expenditure forecasts

As discussed previously, Telstra assumed that:⁷⁹ [c-i-c starts]

[c-i-c ends]

- [c-i-c ends]

These [c-i-c starts] [c-i-c ends] assumptions are reflected in Telstra’s operating expenditure forecasts which show [c-i-c starts] [c-i-c ends] in the forecast period [c-i-c starts] [c-i-c ends].

The ACCC notes that Telstra has forecast [c-i-c starts] [c-i-c ends]. Given this, it is unclear how reasonable Telstra’s above assumptions are regarding the impact of the rollout on its operating expenditure. However, as discussed previously, Telstra has undertaken to update the BBM RKR forecasts to better reflect revised NBN policy and rollout schedule. The ACCC therefore considers that process will provide an opportunity for Telstra to provide further details explaining its assumptions/approach regarding this issue.

2.3.5 Issues for consultation

The ACCC seeks views on:

7. Whether Telstra’s forecasting methodology for operating expenditure is reasonable having regard to the to the LTIE⁸⁰, particularly in respect of the objective of encouraging the economically efficient use of and investment in infrastructure used to provide the services, and the matters⁸¹ that the ACCC must take into account when making the FADs. Are there any alternative approaches that are likely to give a measurably better outcome having regard to the LTIE⁸² and the other matters that the ACCC must take into account when making the FADs?
8. What factors should be considered when assessing the prudence and efficiency of Telstra’s operating expenditure forecasts?
9. Whether Telstra’s 2013–14 forecasts represent a reasonable baseline for the BBM RKR operating expenditure forecasts.
10. Whether Telstra’s BBM RKR operating expenditure forecasts for the period of 2014–15 to 2018–19 reflect prudent and efficient operating expenditure required for Telstra’s

⁷⁹ Telstra, *Final Access Determinations (FADs) inquiry – additional information in response to information request under the BBM RKR (confidential version)*, February 2014, pp. 15-17; *Final Access Determinations (FADs) inquiry – confidential response to information request under the BBM RKR*, June 2014, pp. 5 and 12.

⁸⁰ 152BCA(1)(a) of the CCA.

⁸¹ 152BCA(1)(b)-(g) of the CCA.

⁸² 152BCA(1)(a) of the CCA.

fixed line network.

11. Whether Telstra's assumptions underpinning the trends applied to the base year operating expenditure forecast are reasonable. What scope exists for further efficiency gains given Telstra's views on productivity and trends for network faults? In light of the Telstra's previous statements that its fixed line operating expenditure is a variable cost, should forecast operating expenditure be responsive to forecast changes in demand?
12. What are the likely impacts of the NBN rollout on Telstra's operating expenditure on its CAN and Core networks and how should this be taken into account in forecasting operating expenditure?

2.4 Demand forecasts

This section outlines Telstra's BBM RKR demand forecasts and its methodology used in estimating the forecasts.

2.4.1 Overview of forecasts

Telstra has provided demand forecasts for the period 2013-14 to 2018-19. In their response, Telstra provided:

- demand forecast estimates for the following services:⁸³
 - Unconditioned Local Loop Service (ULLS) SIOs, by geographic band
 - Line Sharing Service (LSS) SIOs, by geographic band
 - Wholesale Line Rental (WLR) SIOs, by geographic band
 - Total SIOs for Bands 1-4 (Excluding ULLS SIOs), by geographic band
 - PSTN Originating and Terminating Access (OTA) minutes⁸⁴
 - Local Carriage Service (LCS) minutes and average call duration
 - Wholesale ADSL SIOs and Peak Usage in Mbps
 - Retail ADSL SIOs and Peak Usage in Mbps
- an Explanatory Statement that outlines the methodology used to prepare forecast estimates for the demand forecast estimates⁸⁵
- a comparison statement which compares demand forecasts made by the ACCC for the previous period (2010–11 to 2012-13) with Telstra's actual demand figures for the period⁸⁶
- additional information in the form of a comparison of past period forecasts, which are used in its own internal planning processes, against actual demand figures.⁸⁷

⁸³ Provided in Attachment C of Telstra's November 2013 BBM RKR response.

⁸⁴ In all information and data provided to the ACCC for the previous FADs and under the BBM RKR, the service names 'PSTN OA' and 'PSTN TA' were still in use and are used in this section when referring to Telstra's response. In the FSR Declaration Inquiry, the names for these services changed and are now known as the Fixed Originating Access Service (FOAS) and Fixed Terminating Access Service (FTAS).

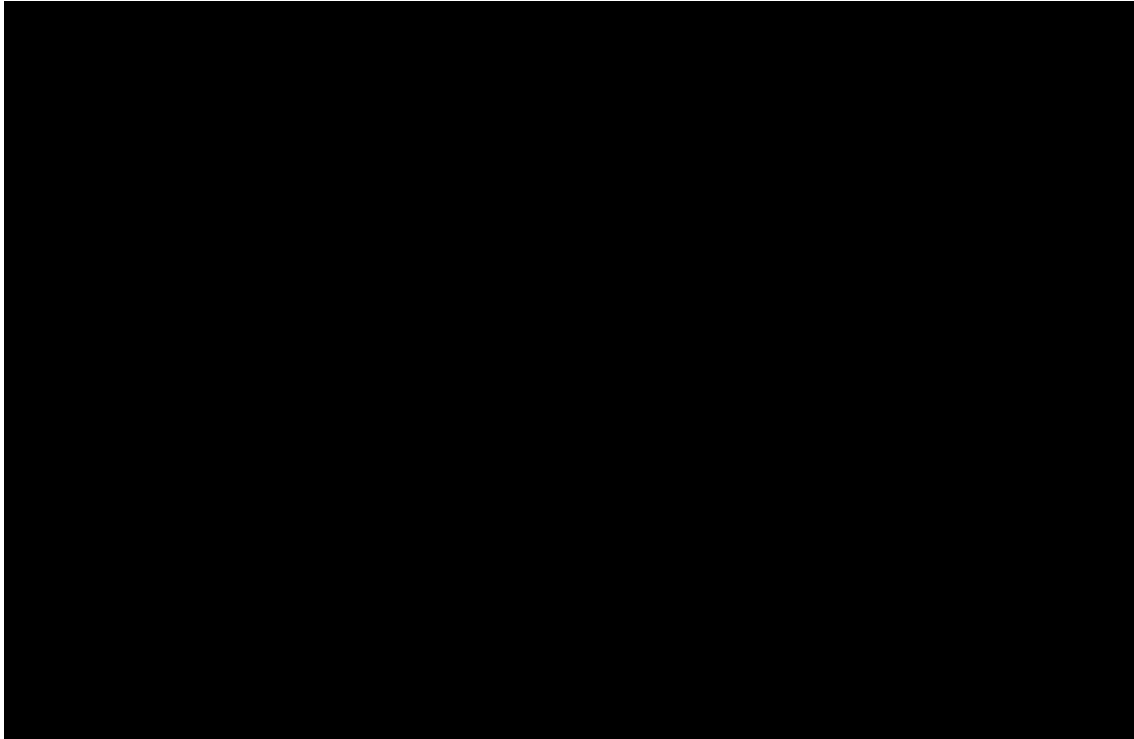
⁸⁵ Telstra, *Final Access Determinations (FADs) Inquiry – confidential response to information request under the BBM RKR*, June 2014.

⁸⁶ Telstra, *Final Access Determinations Inquiry – confidential response to information request under the BBM RKR (Comparison Statement)*, February 2014.

⁸⁷ Telstra, *Final Access Determinations (FADs) Inquiry – additional information in response to information request under the BBM RKR*, February 2014.

The charts below provide a summary of Telstra's BBM RKR forecasts (for 2013-14 to 2018-19) along with the previous FAD forecasts figures and actual demand for 2010-11 to 2012-13.⁸⁸

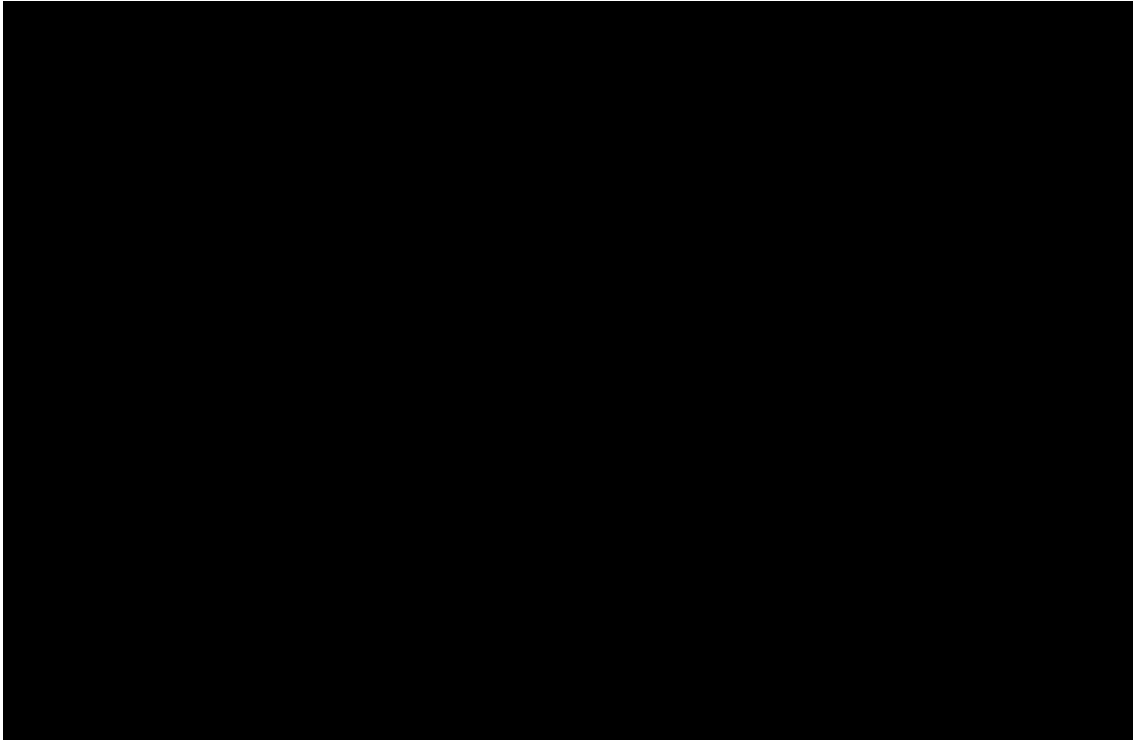
Figure 2.5 Actual, FLSM forecast and BBM RKR forecast demand for ULLS, WLR and LSS SIOs [c-i-c starts]



[c-i-c ends]

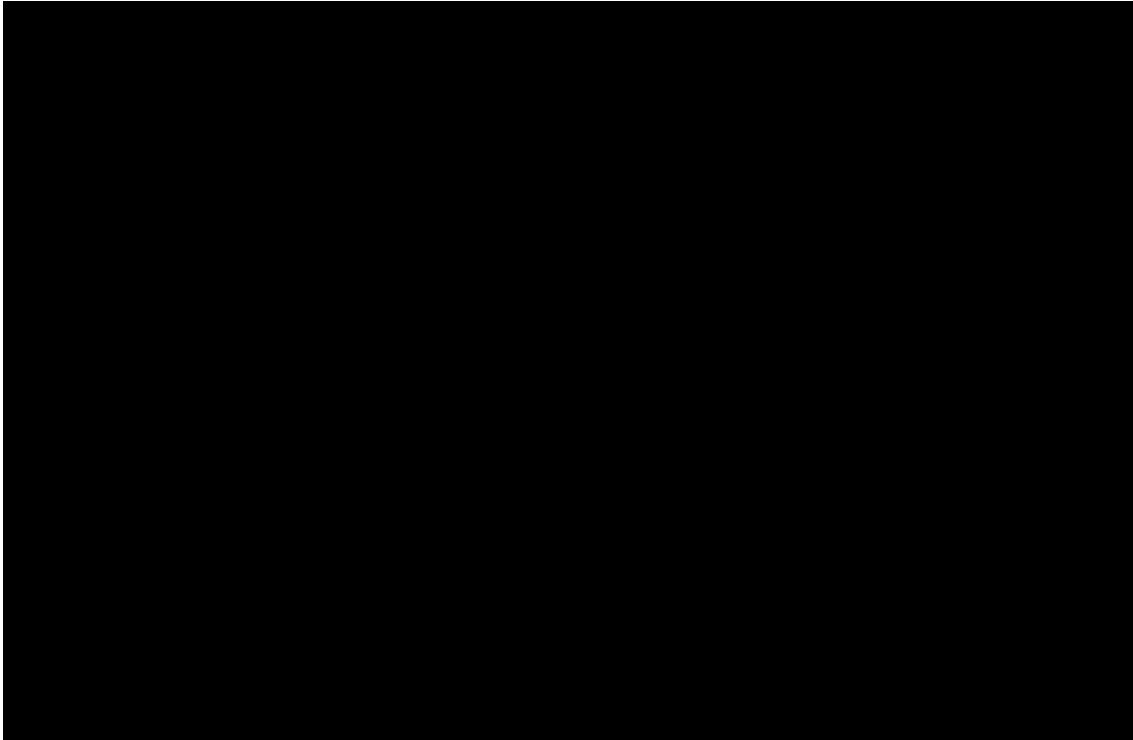
⁸⁸ Actual demand figures sourced from Telstra as provided in the submitted Comparison Statement.

Figure 2.6 Actual, FLSM forecast and BBM RKR forecast demand for Wholesale ADSL and actual and BBM RKR forecast demand for retail ADSL SIOs [c-i-c starts]



[c-i-c ends]

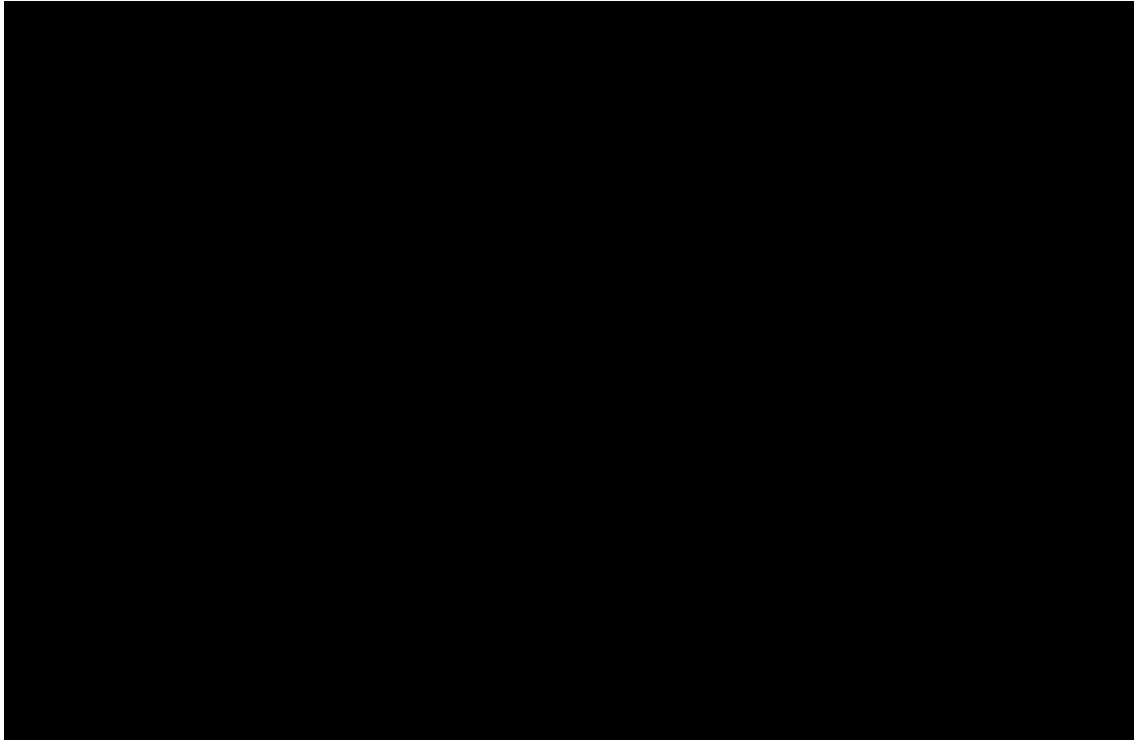
Figure 2.7 Actual and BBM RKR forecast demand for Wholesale ADSL and retail ADSL aggregate peak usage megabits per second (Mbps) [REDACTED]



[REDACTED]

[c-i-c ends]

Figure 2.8 Actual, FLSM forecast and BBM RKR forecast demand for FOAS/FTAS and LCS minutes (left axis); LCS call duration (right axis) [c-i-c starts]



[Redacted text]

[c-i-c ends]

2.4.2 Forecasting methodology and assumptions

Below is a brief summary of the methodologies used to develop the forecasts and an explanation of the how Telstra factored the NBN rollout into the demand forecasts. For more details on Telstra’s methodology for estimating demand forecasts, please refer to the published Explanatory Statement.⁸⁹

Telstra’s demand forecasts were developed by Telstra Wholesale product managers. In general, Telstra has adopted similar methodologies in estimating the BBM RKR demand forecasts as it uses in its internal business planning process unless where otherwise stated.

[c-i-c starts]

[Redacted text]

[Redacted text]

⁸⁹ All information on the methodology of estimating services has been provided in Telstra’s Explanatory Statement.

[REDACTED]

[REDACTED]

[REDACTED] ⁹⁰ [c-i-c ends]

The section below briefly summarises the forecasting methodology for each service/measure.

ULLS, LSS, WLR and Total SIOs

Telstra used broadly similar methodologies to forecast ULLS SIOs and LSS SIOs. Telstra estimated forecast ULLS SIOs and LSS SIOs on a monthly basis for each of the respective services' customers. These forecasts are then aggregated to provide an annual forecast for all customers. Telstra Wholesale ULLS and LSS Product Manager used a similar methodology to internal business planning processes in forecasting demand for ULLS SIOs. WLR SIO forecasts have been developed by Telstra Wholesale's WLR product manager also using a similar methodology to Telstra's business planning processes. Telstra has overlaid the forecasts for ULLS, LSS, and WLR with its assumed impact of the NBN.

Total SIOs (by geographic band) were provided as the sum of voice-only SIOs, DSL-only SIOs and Voice and DSL bundle SIOs, aligning with categories provided by Telstra under the CAN RKR. Telstra stated that this relationship provides consistent forecasts internally for WLR, ULLS and Total SIOs.

[c-i-c starts] [REDACTED]

[REDACTED]

[REDACTED] ⁹¹ [c-i-c ends]

⁹⁰ Telstra, *Final Access Determinations (FADs) Inquiry – additional information in response to information request under the BBM RKR*, February 2014, p. 28

⁹¹ Telstra, *Final Access Determinations (FADs) Inquiry – confidential response to information request under the BBM RKR*, June 2014, p. 38

FOAS/FTAS (formerly known as PSTN OATA)

[c-i-c starts] [REDACTED]

[REDACTED] ⁹² [c-i-c ends]

LCS

Forecast estimates for the number of LCS calls have been developed by the Wholesale LCS Product Manager in a similar manner to that used for Telstra’s business planning purposes.

[c-i-c starts] [REDACTED]
[REDACTED] [c-i-c ends]

Wholesale DSL SIOs and Peak Usage

Monthly forecast estimates for Wholesale ADSL SIOs and Peak Usage for customers of Wholesale DSL were developed by the Telstra Wholesale ‘Wholesale ADSL’ product manager using a similar approach to that used for business planning processes.

[c-i-c starts] [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] [c-i-c ends]

⁹² Telstra, *Final Access Determinations (FADs) Inquiry – confidential response to information request under the BBM RKR*, June 2014, p. 40

Retail ADSL SIOs and peak usage

Forecast estimates for Retail ADSL SIOs and peak usage are developed by Telstra's Retail Business Broadband product manager using a similar approach to that used in Telstra's business planning processes.

[c-i-c starts] [REDACTED]

[REDACTED] [c-i-

c ends]

NBN Assumptions

Telstra's demand forecasts have factored in its assumptions of the impact of the NBN rollout. Telstra's NBN assumptions are based on the information available as at June 2013. The potential impact of subsequent changes to the government's NBN policy, such as the possible adoption of an MTM model, and the scheduled rollout of the NBN since June 2013 have not been taken into account.

[c-i-c starts] [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[c-i-c ends]

2.4.3 Key observations

First, the level of detail on Telstra's forecasting methodology provided in Telstra's BBM RKR response does not allow the ACCC to fully identify the effect on the forecasts of Telstra's assumptions and the effect of using alternative assumptions. This is mainly because Telstra has not provided its forecasting models, which limits the ACCC's ability to reproduce the forecasts and to undertake sensitivity analyses.

Second, the ACCC recognises the inherent difficulties in forecasting demand for services supplied on Telstra's fixed line network given the significant amount of uncertainty around the NBN at present (section 2.1.3).

In the previous FAD inquiry, the ACCC did not incorporate the impact of the NBN rollout into its demand forecasts as it considered it was too early to form a view on how the rollout would impact on demand for the declared services. The ACCC stated in its final decision on the 2011 FAD inquiry that it would consider the impact of the NBN for the next regulatory period.⁹³ As noted above, Telstra's BBM RKR demand forecasts are based on the information available as at June 2013. This means Telstra's forecasts would reflect an out-of-date NBN rollout schedule prepared before the government policy changed from the FTTP approach to the MTM approach. As a result, the ACCC considers that Telstra's demand forecasts are likely to be unreliable and require updating to reflect the impact of change in government's NBN policy and consequently revised NBN rollout schedule on the forecast demand.

Further, the demand forecasts are likely to be considerably less reliable for the later years of the forecast period due to both the inherent difficulty of forecasting demand and Telstra's methodology.

The ACCC seeks stakeholder views on the likely demand trends that may eventuate for services provided on Telstra's PSTN network.

2.4.4 Issues for consultation

The ACCC seeks views on:

13. How should the uncertainty surrounding the scheduled rollout of the NBN and its impact on the forecasts be addressed?
14. Is there sufficient transparency in the information that has been provided by Telstra regarding the forecasting methodology it has adopted? If not, what further information is required?
15. What other views can you provide regarding the demand for declared and non-declared services provided on the PSTN?
16. What other factors should be considered when assessing the reasonableness of Telstra's demand forecasts?

⁹³ ACCC, *Inquiry to make final access determinations for the declared fixed line services: final report*, July 2011, p. 29.

3 Cost allocation

Key Points

- The ACCC used the Analysys Cost Model as a starting point from which a number of adjustments were made to determine the cost allocation factors applied in the FLSM for the 2011 FAD, .
- Once the initial cost allocation factors for the Fixed Line Services Model (FLSM) were determined, the values of the allocation factors were determined exclusively by the changes in the demand for the declared services – this is known as a ‘partially allocated cost’ approach.
- In the 2011 FAD, the ACCC decided that this approach was appropriate since it did not and should not reflect either the decline in total demand for fixed line services or Telstra’s loss of market share.
- Stakeholders have expressed concerns about some aspects of the adjustments made to the Analysys cost allocation factors in the ACCC’s decision for the 2011 FADs, In particular, Telstra considered that the allocation of costs to the FOAS and FTAS (formerly known as PSTN OTA) services in the FLSM did not enable it to recover its costs.
- In its submissions to the 2009–10 Review of Pricing Principles for Fixed Line Services and 2011 FAD inquiry, Telstra raised concerns with the ACCC-proposed cost allocation methodology and suggested both a broad framework and specific calculations of allocation factors. However, Telstra did not provide a comprehensive, fully allocated cost approach based on actual fixed line costs to the ACCC at that time.
- For the current FAD inquiry, Telstra has proposed a comprehensive fully allocated cost approach to fixed line services. The effect of the proposed cost allocation approach is to increase the total revenue to be recovered from regulated services, resulting in real price increases for declared services.
- The fully allocated cost approach allows Telstra to recoup its investments in sunk and common fixed line infrastructure. While the fully allocated approach may more accurately reflect the actual fixed line costs that Telstra incurs, the consequence is that per unit shared costs may rise for both Telstra and access seekers if there is a structural decline in demand for fixed line services.

3.1 Cost allocation to declared services

Telstra’s fixed line assets are used to provide both declared and non-declared services, and therefore it is necessary to determine the share of the fixed line cost base to be allocated to individual declared services in order to determine service prices. The cost allocation methodology used in the fixed line services model (FLSM) for the 2011 FAD inquiry was developed using the best information available to the ACCC at the time, and was aimed at determining each declared service’s use of shared assets.

The cost allocation approach adopted by the ACCC for the 2011 FAD is a partially allocated cost approach. The partially allocated cost differs from a fully allocated cost approach in that the ‘allocation factors’ or drivers of declared service cost only respond to demand for declared services, not the demand for all fixed line services (including Telstra retail). As a result, all other remaining costs incurred in the provision of non-declared fixed line services are not considered in the partially allocated cost approach.

In applying the 2011 FAD approach to allocating capital and operating expenditure, the allocated costs represent the total costs of providing each declared service. The allocation factors used were derived from the Analysys cost model and then adjusted by the ACCC to reflect more up-to-date information about the usage of shared assets to provide specific services. The cost allocation factors are applied to a number of asset classes in the fixed line service model which make up Telstra's CAN and Core fixed line network.

3.1.1 Asset Classes in the FLSM

The ACCC includes the following asset classes in the FLSM RAB (Table 3.1). The table shows the relative importance of the asset classes and the per cent contribution to the total revenue requirement determined for fixed line services (declared and non-declared) in 2013-14. Asset classes contributing more than [c-i-c starts] [c-i-c ends] per cent of the total revenue requirement are designated as significant; those contributing between [c-i-c starts] [c-i-c ends] and [c-i-c starts] [c-i-c ends] per cent are designated as of material importance; and those contributing less than [c-i-c starts] [c-i-c ends] per cent are designated as of minor importance.

Table 3.1 Asset classes included in the FLSM RAB

CAN Asset Class		Revenue requirement (% of total)	Importance
CA01	Ducts and pipes	[c-i-c starts]	Significant
CA02	Copper cables	[c-i-c starts]	Significant
CA03	Other cables	[c-i-c starts]	Minor
CA04	Pair gain systems	[c-i-c starts]	Material
CA05	CAN Radio Bearer Equipment	[c-i-c starts]	Minor
CA06	Other CAN assets	[c-i-c starts]	Minor
CA07	Other Communications Plant and Equipment	[c-i-c starts]	Minor
CA08	Network land	[c-i-c starts]	Minor
CA09	Network building/support	[c-i-c starts]	Material
CA10	Indirect Capital Assets	[c-i-c starts]	Material

Core Asset Class			
CO01	Switching Equipment – Local	■	Material
CO02	Switching Equipment – Trunk	■	Minor
CO03	Switching Equipment – Other	■	Minor
CO04	Inter-exchange cables	■	Material
CO05	Transmission Equipment	■	Significant
CO06	CORE Radio Bearer Equipment	■	Material
CO07	Other Communications Plant and Equipment	■	Minor
CO08	Network Land	■	Material
CO09	Network Buildings/Support	■	Material
CO10	Indirect Capital Assets	■	Material
CO11	LSS equipment	■	Minor
CO12	Data equipment	■ [c-i-c ends]	Significant

The listed assets are joint or common assets. They are used to provide a number of services, including non-declared services. Only a proportion of the cost of these shared assets is allocated to the declared fixed line services.

Three asset classes in the CAN and Core network — data equipment, mobile network and terminal equipment, and customer equipment — were originally excluded from the assets included in the RAB because these assets are not used by the declared fixed line services. However, for the 2013 wholesale ADSL FAD, the data equipment asset class was included in the FLSM for the pricing of wholesale ADSL services.

3.1.2 Analysys as an input in the determination of cost allocation factors

For the 2011 FAD, the ACCC made several adjustments to the Analysys cost allocation factors in deriving the cost allocation factors used in the FLSM. Adjustments were made to remove, as far as possible, the effects of the optimisation undertaken in the Analysys model to ensure that the cost allocation factors used in the FLSM are compatible with the actual cost data used to model prices.

Where appropriate and available, the Analysys model was used as a starting point to determine the initial cost allocation factors used in the FLSM. Where Analysys model factors were either not appropriate or not available, the ACCC used three alternative methodologies to develop cost allocations for particular asset classes: geographic cost basis; de-optimised cost basis and revenue share basis.

The Analysys allocation factors were determined as a starting point for the cost allocation factors in the FLSM. Once the starting point cost allocation was established, the cost allocation factors were adjusted for forecast changes in service demand levels since the Analysys model was developed to ensure that the factors used in the FLSM reflected current usage patterns. Where costs could not be directly attributed to assets, such as shared assets like network buildings and indirect capital assets, the method adopted by the ACCC calculates an

appropriate allocation to specific services using a revenue share approach that broadly reflects expected usage of the relevant assets.

Table 3.2 sets out the method used to calculate each of the cost allocation factors used in the FLSM by asset class. More detailed descriptions of how cost allocation factors were determined in the 2011 FADs are provided in 'Additional information on cost allocation'.

Table 3.2 Methods used to determine initial cost allocation factors

	ULLS	WLR	PSTN	LCS
Customer access network (CAN) Asset Class				
Ducts and pipes	G	G		
Copper cables	G	G		
Other cables		A		
Pair gain systems		A		
CAN radio bearer equipment				
Other CAN assets	A	A		
Other communications plant and equipment	A	A		
Network land	A	A		
Network buildings and support	A	A		
Indirect capital assets	R	R		
Core Asset Class				
Switching equipment – local		A	D	A
Switching equipment – trunk			D	A
Switching equipment – other			D	A
Inter-exchange cables			A	A
Transmission equipment			A	A
Core radio bearer equipment			A	A
Other communications plant and equipment			R	R
Network land			R	R
Network buildings and support			R	R
Indirect capital assets		R	R	R
Legend				
Analysys model basis	A	De optimised Analysys model basis	D	
Geographic cost basis	G	Revenue share basis	R	

The allocation factors defined the demand for the service as services in operation (SIOs) and minutes of use (MOUs) that are only relevant to declared fixed line services.⁹⁴ As a result, an annual change in the demand for declared services will alter the share of CAN and Core costs that are allocated to these declared services. For example, if there is a decline in wholesale line rental (WLR) SIOs for a given year, there will be an equi-proportionate fall in the fixed line costs that are allocated to this declared service whether the change in total SIOs increases, decreases or remains constant. Therefore, the cost approach adopted is identified as a partially allocated cost approach rather than a fully allocated cost approach.⁹⁵

⁹⁴ Or the data equivalent of minutes of use.

⁹⁵ For a comprehensive outline of the Analysys allocation approach and the ACCC adjustment to the Analysys model for the 2011 FAD see the following publications:
 ACCC, *Review of the 1997 telecommunications access pricing principles for fixed line services*, Draft report, September 2010;
 ACCC, *Public inquiry to make final access determinations for the declared fixed line services*, Discussion Paper, April 2011. ACCC (2011) *Inquiry to make final access determinations for the declared fixed line services*, *Final Report*, July 2011.

3.1.3 Allocation Factors in the FLSM

In the 2011 FAD the ACCC applied the adjusted Analysys allocation factors as a starting point cost allocation basis, and any changes in demand were reflected in the total costs allocated to the declared service. That is, if demand increases, the total share of costs allocated to the service will increase to reflect its increased usage of the assets used to provide it.

The ACCC did not accept Telstra's view that the cost allocation factors for the declared fixed line services should be adjusted to reflect declining total demand for the fixed line services.⁹⁶ The ACCC noted that Telstra's proposed approach would mean that as total demand declined, the costs of the network would be recouped from a smaller number of remaining services. Adopting this approach would increase the unit costs of providing all remaining services.

In the 2011 FAD, the ACCC identified a number of reasons for the recent declining trend in traffic on Telstra's PSTN, including:

- reduced demand for wholesale services like WLR, local carriage service (LCS) and FOAS and FTAS (formerly known as PSTN OTA), due to growth in access seekers' own networks
- increased competition by access seekers, which has reduced Telstra's retail market share. Much of the fall in total demand for fixed line services reflects reduced demand for Telstra's retail services.
- continuing fixed to mobile substitution, which has decreased the total fixed line services market.

Therefore, the ACCC considered that it was not appropriate to compensate Telstra for a loss of market share or for reductions in the size of the market. The ACCC considered that Telstra has been appropriately compensated for these business risks through the risk premium included in the commercial rate of return provided by the WACC.

In the 2011 FAD, the ACCC also considered that the approach it had adopted reduced the risk that building block costs of declared services would include inefficient or over-provisioned assets, such as over-provisioned switching equipment. The ACCC was of the view that Telstra's investment in switching capacity was a commercial decision based on past voice traffic and Telstra's forecasts of future demand. The ACCC noted that the BBM approach is based on allowing the access provider to recover its efficient costs and does not include monopoly profits in prices. In a competitive market, a business would not be able to spread the costs of inefficient or over-provisioned assets over its remaining customers as this would reduce its ability to compete with alternative suppliers. Only a monopolist could recover inefficient costs from its remaining customers by charging prices that include monopoly profits.

One implication of the ACCC's 2011 FAD approach to cost allocation is that costs which are incremental to Telstra are removed from the cost base so that an access seeker does not pay a share of costs that are specific to Telstra retail. For example suppose there is a fall in voice traffic over Telstra's PSTN network and suppose that this loss is exclusively attributed to the loss of market share by Telstra to competing carriers where the latter possess their own switching equipment. Under the partially allocated cost approach—with Telstra's switching equipment costs allocated on a demand basis—competing carriers do not bear the higher per unit fixed cost of switching equipment that is clearly incremental to Telstra. In this case, Telstra appropriately incurs the higher per unit fixed costs of its switching equipment,

Another implication of the ACCC 2011 partially allocated approach is that it assumes long run costs, which are incremental to access seekers (yet are part of Telstra's fixed line infrastructure), are adjusted downwards in response to sustained changes in patterns of demand. Cost allocation methodologies should ensure that incremental costs are:

⁹⁶ ACCC, *Public Inquiry to make final access determinations for the declared fixed line services: Discussion Paper*, April 2011, p. 127.

- correctly assigned to the relevant services; and
- estimated to reflect the adjustments of incremental costs to sustained changes in the pattern of demand.

However, incorporating additional drivers to achieve this this adds to complexity and modelling cost. The partially allocated approach readily adjusts the costs that are incremental to access seekers without necessitating the complex and costly inclusion of additional drivers.

Further, the ACCC 2011 partially allocated approach may reflect the responsiveness of a large proportion of Telstra's costs to changes in demand for fixed line services that include the change in demand for declared services. Telstra has noted that a material proportion of its costs are variable. These variable costs include some capital costs, operating expenditure and the taxation building block.⁹⁷ Telstra has also noted that the rate of decline in its fixed line voice outputs was exceeded by the rate of decline in its fixed line voice input costs between FY2004 and FY 2009, indicating a high degree of variability of its costs in response to changes in demand.⁹⁸ Therefore, if there is a structural decline in demand for fixed line services, which may affect both declared and non-declared services, the ACCC 2011 partially allocated approach recognised that Telstra could largely respond to a decline in demand for declared services by scaling back the variable costs of providing declared fixed line services.

3.2 Telstra's alternative approach to cost allocation

Telstra stated that the current cost allocation approach in the FLSM is unnecessarily complex, does not provide certainty with respect to cost recovery, and is internally inconsistent as a result of the adjustments made to the original Analysys allocation factors.⁹⁹

Telstra has proposed a cost allocation model that it considers:¹⁰⁰

- is relatively simple and easily understood;
- provides certainty with respect to cost recovery in the sense that it is fully allocated – once all the costs of providing the declared fixed line services are determined, they are then fully allocated to individual services;
- is internally consistent – all allocators are determined within a single framework.

Telstra has proposed a fully allocated cost approach to price setting. As its name indicates, the fully allocated cost approach allocates fixed line capital and operating costs to all services that use these fixed line resources. This way, all costs incurred are fully allocated to all services.

Telstra's fully allocated cost approach allocates a share of costs to each service that uses a particular asset. This way the regulated revenue requirement estimated under the approach will represent the total declared services share of fixed line service costs.

Telstra's approach fundamentally changes how the impacts of declining demand would be shared between Telstra and access seekers (see chapter 4 for discussion of declining demand). Under Telstra's revised approach to cost allocation, declining demand for services

⁹⁷ Telstra (2012), *Response to the Commission's Issues Paper (a second discussion paper) into the public inquiry to make a final access determination for the wholesale ADSL service*: 24 August 2012, p. 26.

⁹⁸ Telstra (2010), *Submission in response to the Australian Competition and Consumer Commission's Review of Telstra Price Control Arrangements*, 12 February 2010, pp. 29–30.

⁹⁹ Telstra (2011), *Public Inquiry to make final access determinations for declared fixed line services, Executive Summary of Telstra's Response to the Commission's Discussion Paper*, 3 June 2011, p. 4; Telstra (2010), *Pricing Principles for Fixed Line Services – Supplementary Response to the ACCC's Draft Report, November 2010*, pp. 12-15; Telstra (2011), *Public Inquiry to make final access determinations for declared fixed line services, Part A of Telstra's Response to the Commission's Discussion Paper*, 3 June 2011, pp. 36-54

¹⁰⁰ Public versions of the Telstra Allocation Framework and related reports prepared by KPMG are on the ACCC website. Telstra will make available confidential versions of the model to access seekers subject to confidentiality undertakings.

using particular assets will result in higher access prices unless there is an offsetting rise in demand for other uses of those assets (including where the decline in demand was for Telstra's retail services and demand for declared services was not declining – see chapter 4 on declining demand.)

Telstra's fully allocated cost model relies on a detailed analysis of routing patterns and other actual usage on its network assets to determine cost allocation factors. This is supplemented with general allocators where it is not possible to attribute usage to assets.

3.2.1 Key observations of Telstra's Fully Allocated Cost Model

Under Telstra's alternative approach costs of its fixed line networks are fully allocated. In order to establish cost causal relationships between declared services and the shared fixed line networks, Telstra must also introduce a suite of additional drivers (in addition to routing factors, MOUs, SIOs and geographic bands) so that a full allocation of fixed line costs to all services using the assets of the networks can be achieved.

The purpose of Telstra's cost allocation framework is to derive 'per asset class, per service' cost allocation factors that are then applied to total asset costs in the FLSM. This enables the calculation of the total costs of providing the declared services. The model itself consists of Excel spreadsheets with several interdependent workbooks. The main elements of the model are as follows:

- To establish a fully allocated cost model, Telstra has used information from its internal infrastructure databases to reflect key elements of the fixed line network and how those elements are used by different service platforms. This information is used to identify the share of assets used for declared and non-declared fixed line services and non-fixed line services. For example, duct and copper route kilometres are used to determine cost allocation factors for the ducts and pipes and copper cables asset classes/ for the CAN, while fibre kilometres are used for the inter-exchange cables asset class and total rack space is used for the network land, buildings and other communications asset class for the Core.
- Once the share of assets used for fixed line services has been isolated, the main inputs into the model are Telstra's forecasts of demand for all of the services that use the FLSM's asset classes. For the declared services, these forecasts are taken from Telstra's BBM RKR response; for other services, forecasts have been made that Telstra has stated are determined in a way that is consistent with the BBM RKR forecasts (discussed in chapter 2).
- The other input is a set of 'routing factors'. These represent best estimates of the number of times each service (declared or otherwise) 'uses' each asset class for each unit of demand. The routing factors are used to weight the demand forecasts used to calculate the cost allocation factors to reflect that different services use the various assets in different ways. The routing factors are important in determining the relative usage of each of the declared services.
- From the inputs, the asset class' relative usage by each service is determined. Multiplying the routing factors by the demand for each service gives each service's total estimated usage of a relevant asset class.
 - For example, the routing factor for 'copper cables' will be 1 for both ULLS and WLR, because for each unit of demand, the copper cable between the end-user and the exchange is used once to deliver both services. However, Telstra has forecast that demand for WLR will fall at a faster rate than ULLS over the RKR forecast period, so this means that the ULLS usage of the 'copper cables' asset class will be increasing relative to the WLR usage of that asset class.
- Dividing a declared service's total usage of an asset class by the sum of all services' total usage of that asset class gives that declared service's relative usage

of the asset class – this is the cost allocation factor for that asset class for that declared service.

- In contrast, the ‘per declared service, per asset class’ allocation factors are then multiplied by the total revenue requirement in the FLSM for each asset class and then summed. This yields the subset of the total revenue requirement that will be recovered from the declared services – that is, the regulated revenue requirement.
 - This part of the framework represents the main point of difference with the current version of the FLSM, which does not derive a regulated revenue requirement – rather, it applies allocation factors to the total revenue requirement to derive per service revenue requirements.
- Most allocation factors are determined using the method as described above. However, there are some asset classes that cannot easily be attributed to specific services on a cost-causal basis. While the clear cost driver for (for example) ‘ducts and pipes’ is the number of SIOs, there is no readily identifiable cost driver for assets such as ‘indirect capital assets’. The allocation factor for this asset class is determined, for a given service, on the basis of the average allocation to that service for assets which have had a cost-causal allocation factor determined.¹⁰¹
- Once the regulated revenue requirement has been determined, prices may be set for each service based on the amount that each service contributes to the required revenue requirement or may be set via other methods that is within the bounds avoidable cost and standalone cost of the declared service (discussed in chapter 5).

Further information on asset classes and cost allocation is available in ‘Additional information on cost allocation’ published on the ACCC website with the discussion paper.

The ACCC notes that a move from the partially allocated cost approach used in the current FLSM to the fully allocated approach proposed by Telstra would result in an increase in the regulated revenue requirement, all else being equal. Such a move may have a significant impact on prices depending on the magnitude of the revenue difference under the two cost methodologies.

3.2.2 Advantages of Telstra’s Proposed Fully Allocated Cost Approach

The ACCC has identified the following advantages with Telstra’s proposed cost allocation model:

- Telstra’s allocation factors have been developed on the basis of its detailed knowledge of its network topology and fixed line costs, and with specific regard to the declared services’ consumption of fixed line resources which sit inside the asset classes in the FLSM. In contrast, for the 2011 FAD, the ACCC had undertaken ‘de-optimisation’ adjustments of a hypothetical network model (the Analysys model) in the absence of detailed knowledge of Telstra’s actual network topology and actual fixed line costs. And therefore Telstra’s approach may result in declared services prices that more closely reflect the resource cost of their provision.
- Cost drivers can be applied to services in a transparent and internally consistent manner – this may improve cost traceability and therefore improve identification of the services’ consumption of fixed line resources.
- A fully allocated cost approach may lead to declared service prices that more closely reflect their consumption of fixed line resources. Prices that reflect resource

¹⁰¹ This is analogous to the approach used in the FLSM where a revenue approach was used to allocate costs to asset classes for which no allocation factor was available.

costs would promote the efficient use of Telstra's PSTN and data networks and provide incentives for efficient investment by Telstra and access seekers.

- A fully allocated cost approach, as consistently applied to all fixed line services, reflects the nature of many fixed line costs which are both sunk and shared between declared and non-declared services. Such an approach reduces the likelihood that Telstra will bear any stranding risk on behalf of access seekers. If fixed line costs are shared by a number of fixed line services, the decline in demand for one service would consistently result in higher common per unit costs for other fixed line services. In other words, cost allocation factors are derived having regard to the declared services' usage of the network relative to all other services that use the same assets; as a result, the regulated revenue requirement derived by the model can be fully allocated to the declared services.
- The current approach takes the original Analysys allocation factors and 'de-optimises' them in various ways – these adjustments have been criticised in the past by Telstra and access seekers as being arbitrary. Telstra's fully allocated cost model is autonomous and internally consistent, and therefore removes the need to rely on the Analysys allocation factors and the 'de-optimisation' adjustments that have been applied to them.

3.2.3 Disadvantages of Telstra's Proposed Fully Allocated Cost Approach

There several disadvantages arising from the fully allocated cost approach that are generic to the fully allocated costing approach:

- Since the fully allocated cost approach is cost based, it may discourage cost minimisation by the access provider.
- There is a potential increase in the likelihood of implicit subsidisation between regulated and competitive services via accounting cost allocation and managerial cost allocation.
 - Accounting cost allocation: the access provider has an incentive to create and overuse certain drivers that not only artificially and disproportionately raise costs for access seekers but also reduce the risks for the access provider. For example, a telecommunications access provider may have an incentive to over-allocate its fixed line costs between a household's network boundary point and the first switch – such an allocation may artificially inflate the costs for access seekers, since the use of this infrastructure is the common access point for access seekers. If there is a structural demand decline in terms of minutes of use (or equivalent), the access provider also has an incentive to overuse SIOs as a cost driver – even if this is the least cost reflective driver – so that its cash flows are more stable, reducing the access provider's exposure to non-systematic risk.
 - Managerial cost allocation: The fully allocated costing approach encourages the access provider to allocate the best human and capital resources to its competitive segments, while allocating its least efficient resources to the regulated services.¹⁰²
- Relatedly, and particularly relevant to vertically integrated access providers, investments that jointly affect the costs of both regulated and competitive services

¹⁰² Jean-Jacques Laffont and Jean Tirole, *Competition in Telecommunications*, Munich Lectures in Economics, pp. 141–147.

may be distorted toward achieving low cost in the competitive segment and high cost in the regulated segments.¹⁰³

There may also be specific potential disadvantage with Telstra's proposed fully allocated costing approach.

Telstra's has stated that its fully allocated approach is simpler, more transparent and cost reflective than the cost allocation in the current FLSM, among other considerations. The ACCC will need to satisfy itself that it is the case before it can consider adopting Telstra's proposal. To do that it must be able to verify the information on which the proposal is based and to replicate the model from existing cost databases. Without comprehensive information on the method of cost allocation to all fixed line services, the transparency in cost causation and cost attribution will not occur and the ACCC will not be able to satisfy itself that the cost attributions are appropriate.

As noted, Telstra's alternative cost allocation proposal is likely to result in higher costs being attributed to the declared services and the transfer of demand risk from Telstra to access seekers (discussed in chapter 4). This only promotes efficient outcomes if the new prices more accurately reflect the resource cost of providing declared services. However, if the cost allocation methodology proposed by Telstra is opaque and not verifiable – which may elicit incentives to disproportionately and inefficiently allocate costs to declared services – broader considerations of efficiency may be required. That is, if there is uncertainty surrounding cost traceability and cost causality of Telstra's proposal, any improvement in risk sharing and cost reflectivity may be balanced against:

- the potential increase in inefficiently incurred declared service costs and demand risk exposure for access seekers (which is more significant if access seekers have substantial sunk commitments and sunk investments in fixed line infrastructure)
- the efficiency consequences of a potential decline in effective competition for the provision of fixed line services.

The ACCC seeks views on:

17. Whether the partially allocated approach or Telstra's fully allocated cost approach is likely to best reflect the cost of declared services for the next regulatory period.
18. Are there any issues arising from the partially allocated cost approach?
19. What are the potential issues with Telstra's proposed fully allocated cost approach?
20. Are there alternative cost allocation approaches to the partially allocated approach and Telstra's fully allocated cost approach that may more closely reflect declared services consumption of fixed line resources?
21. What further information would you require from Telstra to consider whether the fully allocated cost approach proposal results in an approach that is simpler, more transparent and more cost reflective?
22. What are the impacts of higher regulated prices that may arise when moving from a partially allocated cost approach to Telstra's fully allocated cost approach?

¹⁰³ Jean-Jacques Laffont and Jean Tirole, *Competition in Telecommunications*, Munich Lectures in Economics, pp. 141–147.

4 Declining demand

Key Points

- Demand for declared services, and demand for Telstra's fixed line services more generally, are expected to decline over the next five years.
- Declining demand for declared services are driven by three main factors: migration of customers to the NBN, loss of market share through increased competition by access seekers, and take-up of mobile technologies.
- The ACCC's approach to cost allocation in the 2011 FADs resulted in constant unit costs (and hence prices). This resulted in Telstra bearing the impacts of declining demand.
- Telstra's proposed cost allocation framework fundamentally changes the way the impact of declining demand is borne by Telstra and access seekers. Under the proposed fully allocated model, the impacts of declining demand will be borne by access seekers through higher prices.
- Key issues for this FAD inquiry is the extent to which Telstra and access seekers should bear the impacts of declining demand, and whether different sources of declining demand should be accounted for in different way.

Declining demand for fixed line services has been a recent and common trend for copper-based networks in many countries. This is a trend that is likely to be experienced by Telstra over the forthcoming regulatory period for its fixed line services.

Demand for Telstra's fixed line services could be expected to decline for a number of reasons. The key drivers of declining demand for Telstra are likely to be migration to the NBN, loss of fixed line market share through increased competition by access seekers and substitution away from fixed line services towards mobile and other technologies.

The expected decline in demand and the different factors driving these declines raise important implications for how they should be reflected in prices for declared services. In particular, it raises questions about the extent to which the impacts of declining demand should be borne by Telstra or access seekers, and whether different sources of declining demand should be accounted for differently.

This chapter discussed the issue of declining demand and the implications for this FAD inquiry. The chapter is structured as follows:

- Section 4.1 provides an overview of the various decision made by the ACCC as part of the 2011 FADs where declining demand was an important factor
- Section 4.2 discusses the implications of declining demand for the current FAD inquiry.
- Section 4.3 sets out issues and questions relating to declining demand that the ACCC seeks stakeholder comment on.

4.1 2011 Final Access Determinations

In the 2011 fixed line FADs, declining demand was a key consideration in the development of initial cost allocation factors and the method for updating these factors. In particular, declining demand was also a key factor in the treatment of switching equipment asset classes and prices

for PSTN OTA (now called FOAS and FTAS). The ACCC's consideration of declining demand in the context of these two issues during the 2011 FAD process is discussed below.

4.1.1 Cost allocation factors

As discussed in chapter 3, cost allocation factors for the 2011 FADs were mostly based on cost allocation factors from the Analysys model.¹⁰⁴ Cost allocation factors for each declared service were then adjusted annually to reflect changes in forecast demand for that service.

Under the cost allocation method used in the 2011 FADs, decreases in demand would also decrease the costs allocated to a particular declared services by an equivalent amount through the adjustment to the cost allocation factor. The combined result was that unit costs for declared services were invariant to changes in demand. Under this approach, unit costs (and hence prices) for declared services would only change in response to changes operating or capital costs for the relevant asset classes.

During the 2011 FAD inquiry, Telstra argued that the method adopted by the ACCC for updating cost allocation factors is incorrect because it does not account for changes in total demand for fixed line services and implicitly assumes that total demand for fixed lines services remains unchanged.¹⁰⁵ It further argued that in a situation of declining demand, the ACCC's approach would prevent it from recovering a significant proportion of its costs of supplying fixed line services.¹⁰⁶

The ACCC did not consider that prices for declared services should reflect the impact of declining total demand for fixed line services, including declining demand for Telstra's retail services. The ACCC stated that some of the reasons for declining demand include growth in access seekers' own networks (which has resulted in reduced demand for wholesale services like WLR, LCS and FOAS and FTAS (formerly known as PSTN OTA)), increased competition by access seekers (which has reduced Telstra's retail market share) and fixed to mobile substitution (which has decreased the fixed line services market). The ACCC did not consider it is appropriate to compensate Telstra for a loss of market share.¹⁰⁷ The ACCC also did not consider it appropriate that prices should be increased in line with reduced demand due to consumers choosing alternative products.¹⁰⁸

4.1.2 Switching equipment and FOAS and FTAS prices

In the 2011 FAD inquiry, the ACCC considered that¹⁰⁹:

- total voice traffic using Telstra's switching equipment peaked in 2002–03 and had fallen since then, with a larger decline in FOAS and FTAS (previously PSTN OTA) traffic
- the fall in voice traffic over Telstra's PSTN network reflects a loss of market share by Telstra to competing carriers that have invested in their own switching

¹⁰⁴ Cost allocation factors for ducts and pipes were based on geographic cost relativities adopted from the Analysys model. Cost allocation factors for network land and network buildings and support were based on a 'revenue share' approach. Further information on asset classes and cost allocation is available in 'Additional information on cost allocation' published on the ACCC website with the discussion paper.

¹⁰⁵ Telstra, *Pricing principles for fixed line services supplementary: response to the ACCC's draft report*, November 2010, pp. 12-13.

¹⁰⁶ Telstra, *Pricing principles for fixed line services supplementary: response to the ACCC's draft report*, November 2010, pp. 13-15.

¹⁰⁷ ACCC, *Public inquiry to make final access determinations for the declared fixed line services: Discussion paper*, April 2011, p. 127.

¹⁰⁸ ACCC, *Public inquiry to make final access determinations for the declared fixed line services: Discussion paper*, April 2011, p. 127.

¹⁰⁹ ACCC, *Public inquiry to make final access determinations for the declared fixed line services: Discussion paper*, April 2011, pp. 129-130.

equipment as well as a switch by end-users to alternative technologies such as mobiles

Telstra's investment in switching capacity was a commercial decision based on past voice traffic and Telstra's forecasts of future demand.

The ACCC therefore considered that Telstra's switching equipment had been over-provisioned for current voice traffic levels and that Telstra should not be permitted to spread the costs of an inefficient level of switching equipment over its remaining customers. The ACCC accounted for the over-provisioning of switching equipment and the declining demand for the FOAS and FTAS services by setting the initial cost allocation factor based on the total peak voice traffic volume in 2002-03. The effect of this adjustment was to write down the asset value to remove the over-provisioned part of the switching equipment from the cost base.

4.2 Implications of declining demand for price for declared services

In this FAD inquiry, the issue of declining demand is most relevant to the assessment of Telstra's proposed cost allocation framework. An important implication of Telstra's alternative approach to cost allocation is that it fundamentally changes the way that the impacts of declining demand are borne by Telstra and access seekers.

Under the ACCC's current approach to cost allocation, changes in demand do not, by themselves, lead to any changes in prices for declared services. Access seekers therefore do not bear any of the impacts resulting from declining demand. This means that the impact of declining demand is borne by Telstra.

Under Telstra's proposed approach, declining demand will have different impacts on Telstra and access seekers. Due to the fully allocated nature of Telstra's proposed cost allocation framework, if demand for a declared service decreases and demand for all other services decreases by the same proportion, cost allocation factors will remain unchanged. If costs are assumed to be unchanged (for example, because they are largely fixed), this will result in increases in prices for declared services as the same revenue will be recovered from a smaller number of services.

Another important implication of Telstra's proposed approach is that declining demand for one service will have impacts on prices for other services. If demand for one service (declared or non-declared) falls, higher per unit costs will be spread across all services that use the same assets. Therefore, if demand for Telstra's retail voice services falls while ULLS and WLR demand grows, the ULLS and WLR prices would increase (assuming nothing else changed). This contrasts to the current approach, in which changes in demand for a particular declared service affect the cost allocation factors for that service only.

The ACCC considers that the approach to cost allocation adopted in the 2011 FAD, where Telstra bears the impact of declining demand (through the maintenance of cost unit costs), represents one end of a spectrum for how declining demand can be shared. Further, it considers that Telstra's proposed framework, where customers bear the impact of declining demand (by allowing recovery of costs from a smaller demand base), represents the other end of that spectrum. The ACCC considers that if Telstra and access seekers are to both incur a share of the impacts of declining demand, then this would need to be reflected in modifications to the ACCC's current approach to cost allocation, or to Telstra's proposed cost allocation framework.

The ACCC considers that the extent to which the impacts of declining demand should be borne by Telstra and the extent to which they should be borne by access seekers will be a key issue for this FAD inquiry.

In considering the appropriate share of impacts of declining demand between Telstra and access seekers, the ACCC considers it useful to separately consider the different sources of declining demand for Telstra's declared and other fixed line services. As discussed previously, the ACCC considers that the main sources of declining demand for Telstra's declared services are the migration to the NBN, loss of fixed line market share through increased competition by access seekers and substitution away from fixed line services towards mobile and other technologies.

Declining demand for Telstra's fixed line services is a complex issue. The ACCC has not formed views on how the impacts of declining demand should be accounted for, but notes the following as relevant matters to consider:

For migration of customers to the NBN, the ACCC proposes to account for this source of declining demand in determining prices for declared service (see chapter 7).

For loss of market share through increased competition by access seekers, the ACCC has previously held the view that Telstra should not be compensated for this loss. This view is reflected implicitly in the ACCC's current approach to cost allocation, in which Telstra bears the impacts of declining demand. Telstra's proposed cost allocation framework will allow for recovery of costs even in the face of loss of market share to access seekers. If the position adopted by the ACCC in the 2011 FAD was to be reflected in Telstra's proposed cost allocation framework, it would require explicit adjustments to account for this. This raises a number of practical and informational issues, including how to isolate decreases in the demand attributable to loss of market share from other sources of declining demand.

For substitution away from fixed line services, similar practical and informational issues exist. If Telstra and access seekers are to both incur a share of the impacts of this source of declining demand, this will require modifications to either the ACCC's current approach or Telstra's proposed approach. Isolating decreases in demand attributable to substitution away from fixed line services from other sources of declining demand is another practical issue.

4.3 Issues for consultation

The ACCC seeks stakeholder feedback on the following issues/questions relating to declining demand:

The ACCC seeks views on:

23. How should the impacts of declining demand be shared between Telstra and access seekers?
24. Whether the ACCC's current approach to cost allocation, in its current form, appropriately shares the impacts of declining demand between Telstra and access seekers. Please explain your reasons for this view.
25. Does Telstra's revised cost allocation framework, appropriately share the impacts of declining demand between Telstra and access seekers? Please explain your reasons for this view.
26. Should different sources of declining demand be accounted for in different ways? Please explain your reasons for this view.
27. Should Telstra bear the impacts of some sources of declining demand but not others? Please explain your reasons for this view.
28. Are there some sources of declining demand that are more appropriately borne by access seekers?

29. What are some potential options for separately identifying and isolating different sources of declining demand?

5 Determining prices

Key Points

- In the 2011 final access determinations and 2013 final access determination wholesale ADSL, prices for declared services were generally determined as an output of the fixed line services model.
- Telstra has suggested that an alternative, more flexible, approach to setting prices for individual declared services could also be adopted. The ACCC proposes to take submissions on this alternative approach to setting prices as part of this FAD inquiry.
- Under this approach, prices for declared services would be set in the following way:
 - prices for each individual declared service would be set so that revenue earned from those prices is between the avoidable cost and stand alone cost of supplying that declared service, and
 - prices for all declared services would be set so that Telstra can be expected to recover the total revenue requirement associated with declared services from those services.
- The potential alternative approach provides more flexibility in the setting of individual prices compared to the previous approach, but introduces an element of regulatory discretion. The ACCC considers there are merits to both approaches and a range of practical issues that would need to be considered.

The previous four chapters of this discussion paper have focussed on issues relating to the costs of providing declared services and the amount of revenue Telstra should be able to recover from declared services.

This chapter discusses how this revenue is to be recovered by Telstra, more specifically how prices for individual declared services should be determined. Section 5.1 explains the approach adopted in the 2011 final access determinations (FADs) for the setting of individual prices. Section 5.2 discusses a potential alternative approach to setting prices, while section 5.3 discusses relative merits and practical considerations of both approaches.

The focus of this chapter is general methodologies for setting individual prices for declared services. The pricing structures for specific declared services are discussed in chapter 6.

5.1 Current approach to determining prices

Prices in the 2011 final access determinations were determined within the fixed line services model (the FLSM) through the following general process:

The revenue requirement for each asset class is determined. The revenue requirement for each asset class is made up of its capital costs (based on the RAB value), operating expenditure attributable to that asset class and an allocation of tax liabilities.

A share of revenue requirement from each asset class is allocated to each declared service that utilises that asset class using the allocation factors within the FLSM. For each declared service, the share of revenue requirement allocated to that service from each asset class is added to determine a service specific revenue requirement.

The service-specific revenue requirement for each declared service is divided by forecast demand for that service to determine its price.

Prices for WLR, PSTN OA and PSTN TA (now known as FOAS and FTAS), LCS and LSS were determined in this way. For ULLS prices, a further adjustment was made to determine a price for ULLS bands 1 to 3 and a price for ULLS band 4 using geographic cost relativities adopted from the Analysys model (see chapter 6 for further discussion). All prices determined as part of the 2011 FADs were calculated within and were outputs of the FLSM

For wholesale ADSL prices (which were determined in the 2013 FADs), separate prices were determined for port and AGVC services (see chapter 6 for further discussion). Further, two separate port charges were determined for Telstra's two ADSL pricing zones. The service specific revenue requirement for wholesale ADSL was determined through the process described above. However, unlike the prices determined through the 2011 FAD process, prices for the various wholesale ADSL pricing components were determined outside of the FLSM.

5.2 Alternative approach to setting prices

In the course of discussions between the ACCC and Telstra before the start of this FAD inquiry, Telstra has suggested that an alternative, more flexible, approach to setting prices for individual declared services could also be adopted. The alternative approach, which has been adopted or reflected in other regulatory contexts, would involve the following components:

- prices for each individual declared service are set so that revenue earned from those prices is between the avoidable cost and stand alone cost of supplying that declared service (the avoidable cost of a service refers to the cost that would be avoided if that service was no longer provided; the stand alone cost of a service refers to the cost of providing that service in isolation)
- prices for all declared services are set so that Telstra can be expected to recover the total revenue requirement associated with declared services from those services.

The first key difference between the alternative approach and current approach to setting individual prices is that prices are determined outside the FLSM (subject to the conditions outlined above) under the alternative approach, whereas prices are determined within the FLSM under the current approach (except for the different wholesale ADSL price components).

The second key difference is that the alternative approach is likely to produce a range of potential pricing combinations that satisfy the two required conditions, as prices for each declared services can be set within a range rather than at a particular point. Conversely, the current approach produces only a single set of prices produced within the constraints of the FLSM. The only exception to this is the limited flexibility in setting wholesale ADSL prices and if other changes are made to other elements of the FLSM that affect the service-specific revenue requirements. The ACCC notes the set of prices determined under the current approach is likely to satisfy the two conditions required under the alternative approach, but will represent only one of a range of possible pricing combinations.

The key similarity between the two approaches is that Telstra will be expected to receive the same amount of revenue from declared services under either approach (although the amount of revenue Telstra actually receives may differ under both approaches if actual demand differs from forecast).

The ACCC notes the principles reflected in the alternative approach have been adopted in other regulatory contexts in Australia.

For example, the National Electricity Rules specifies pricing principles for how tariffs from particular tariff classes should be set. The principles require that for each tariff class, the revenue expected to be recovered should lie on or between:

- an upper bound representing the stand alone cost of serving the retail customers who belong to that class, and

- a lower bound representing the avoidable cost of not serving those retail customers.¹¹⁰

These principles are used for the development of pricing proposals by electricity distribution network service providers and the Australian Energy Regulator's assessment of these pricing proposals. Similar provisions are also included in the National Gas Rules for gas distribution network service providers.

Another example where the concepts of avoidable cost and stand alone cost are important factors is the ACCC's annual review into whether Australia Post cross-subsidises its non-reserved (non-regulated) services with revenues from its reserved (regulated) services. The ACCC uses a stand alone cost test to assess whether revenue received from Australia Post's various reserved and non-reserved services represents a source of cross-subsidies, and an incremental cost (similar to avoidable cost) test to assess whether its various services are recipients of cross-subsidies. In general, a service is neither a source nor recipient of a cross subsidy if the revenue earned through that service lies between incremental and stand alone cost.

Although the concepts of avoidable (or incremental) cost and stand alone cost are not specifically used to test for the presence of cross-subsidies between Telstra's declared and non-declared services, the ACCC still considers this to be useful example to consider. This is because cross-subsidies are a key factor when assessing whether prices for regulated services are set in an efficient manner or whether competition is likely to be effective in related markets. The second matter is particularly relevant when the regulated entity also participates in markets for non-regulated services. As the ACCC is required to consider these matters in setting prices for Telstra's declared services, the example provides a good basis for considering how to set these prices.

5.3 Discussion and issues for consultation

The ACCC considers that the alternative approach discussed above is worthy of further consideration. As part of this FAD inquiry the ACCC will consider whether it is appropriate to deviate from the current approach and whether it may be appropriate to adopt the alternative approach. In considering the merits and practical implications of the two approaches, the ACCC has identified the following as relevant issues for consideration:

The alternative approach would provide the ACCC with significantly more flexibility in setting prices for individual declared services. As there will be a range of pricing combinations that would satisfy the required conditions under the alternative approach, the ACCC would be able to consider a broader range of pricing objectives in setting prices without having to first adjust the amount of revenue Telstra can recover from declared services or to adjust service-specific revenue requirements. Some of these objectives may include price stability, achieving an appropriate balance between fixed and variable prices and setting prices to address issues of congestion.

The alternative approach introduces regulatory discretion into the setting of prices for declared services. Under the current approach there was little scope for regulatory discretion in the setting of prices because they were generally set within the FLSM. Under the alternative approach prices would be set outside of the FLSM. A clear framework for determining prices outside of the FLSM would be needed to ensure that prices were not determined in an arbitrary manner.

A significant portion of Telstra's fixed line assets are common costs, in that they are used in the provision of multiple services. There is therefore likely to be a significant range between avoidable cost and standalone cost from which to determine prices. The larger the range of

¹¹⁰ National Electricity Rules version 63, clause 6.18.5, pp. 706-707. The National Electricity Rules also provide scope to the AER to develop guidelines on the estimation of avoidable cost and stand alone cost (clause 6.2.8, p. 1367).

possible pricing options, the larger the role of regulatory discretion in the setting of individual prices.

The current approach may lead to a price shock for a declared service resulting from changes in demand for that service or changes in expenditure associated with assets used more intensively by that service. This is because service-specific revenue requirements are used to determine prices and any changes in demand or expenditure is likely to have a proportionally bigger impact on prices. Under the alternative approach, the impacts of a change in demand or change in expenditure for a particular asset class can be spread over a wider range of services. In this way, the alternative approach is likely to better promote price stability or maintain current price relativities compared to the current approach.

Different pricing combinations will result in different allocations of demand risk between Telstra and access seekers. For example, if total minutes of use for voice calls are more subject to fluctuations and forecasting error than services in operation (SIOs), increasing the WLR price while reducing the LCS price would shift demand risk away from Telstra. In determining prices within the required range under the alternative approach, the allocation of demand risk to Telstra and access seekers would need to be considered.

Different access seekers are likely to favour different pricing combinations depending on how they use Telstra's infrastructure. For example, access seekers that use their own infrastructure installed in Telstra exchange buildings will prefer lower ULLS and LSS prices, while access seekers that do not install their own infrastructure in exchange buildings will prefer lower WLR and wholesale ADSL prices. If the alternative approach is adopted, it would be important to consider the relative impacts between different types of access seekers in determining a pricing combination.

Telstra's proposed cost allocation framework (discussed in chapter 3) is a fully allocated model for determining the amount of revenue it can recover from declared services. Further, it specifically allocates costs to specific declared services. If Telstra's proposed cost allocation framework is adopted and the current approach to setting prices within the FLSM is maintained, the combined effect is that prices for individual declared services would also be set on a fully allocated basis. If Telstra's cost allocation model is adopted and the alternative approach is used to determine prices for individual declared services, this could be considered to represent an inconsistency. This is because a fully distributed and cost causal approach is used to determine allowable revenues but another approach is used for setting prices.

Estimates of avoidable cost and stand alone cost for each declared service would need to be developed to implement the alternative approach.

The ACCC seeks stakeholder feedback on the following issues/questions relating to determining prices for declared services:

The ACCC seeks views on:

30. The advantages and disadvantages of moving to a more flexible approach to setting prices for individual services compared with the current approach.
31. If a more flexible approach to setting individual prices is adopted, what principles should be followed to ensure prices are not set in an arbitrary way?
32. If a more flexible approach to setting individual prices is adopted, what are some principles that could be adopted to guide the setting of prices?
33. Are price stability and stable price relativities objectives that should be pursued? Please give reasons for this view.
34. Are there any issues of inconsistency between Telstra's proposed fully allocated cost

allocation framework and the alternative approach to individual price setting?

35. How could estimates of avoidable cost and stand alone cost be determined for Telstra's declared services?

6 Pricing structures

Key Points

- The ACCC has previously specified particular price structures for the ULLS, FTAS/FOAS and wholesale ADSL service.
- For ULLS, the ACCC has previously adopted a form of geographically de-averaged prices to reflect the cost differentials between geographic regions. In the 2011 FAD, the ACCC set an average price for Bands 1-3 and a separate price for Band 4, where costs are significantly higher.
- For FTAS/FOAS, the ACCC has set a single nationally-averaged per minute price. Other price structures, including geographic and two-part price structures, have been considered in the past but would require robust information and reasoning to support re-implementing such structures.
- For Wholesale ADSL services, the ACCC has previously adopted both a geographic and two-part pricing structure (based on port and AGVC/VLAN charges).
- The ACCC is seeking views on the current price structures and whether these, or other, structures should be adopted for the forthcoming regulatory period.

This chapter considers the key issues regarding price structures for certain declared fixed line services. Specifically, section 6.1 discusses the geographic pricing issues related to ULLS; section 6.2 discusses the geographic pricing issues regarding FOAS and FTAS (previously referred to as PSTN OA and PSTN TA respectively); and section 6.3 discusses issues related to the wholesale ADSL price structures.

6.1 ULLS

Since 1997, the ACCC has adopted geographically de-averaged prices for the ULLS in terms of ULLS Bands.¹¹¹ Prior to the 2011 FADs, the ACCC had set separate indicative prices for ULLS bands 1 to 3.¹¹² The ACCC set only a notional price for Band 4 because the ACCC did not have robust information available regarding Band 4 and access seekers did not tend to seek access to the ULLS in that band.

This section summarises the ACCC's decision on the ULLS price structure for the 2011 FADs and the key issues for the current fixed services review FAD inquiry.

6.1.1 Price structure for the 2011 FADs

ULLS price structure

In the 2011 FADs, the ACCC set an averaged Band 1-3 price and a separate price for Band 4 as follows:

¹¹¹ The exchange service areas (ESAs) in which ULLS is supplied are categorised into four bands: Bands 1 covers CBD areas, Band 2 covers non-CBD metropolitan areas, Band 3 covers regional areas and Band 4 covers the most remote areas.

¹¹² ACCC, *ULLS pricing principles and indicative prices*, June 2008, p. 22.

Table 6.1 2011 FADs ULLS prices (2011-2014)

ULLS Band	Monthly price (\$)
Bands 1-3	16.21
Band 4	48.19

The ACCC had regard to the following considerations in setting an average price across Bands 1-3:¹¹³

- Since Bands 1–3 shared similar characteristics, the aggregation of these geographic regions was appropriate and will support investment and competition. Further, the ACCC’s more robust methodology for estimating geographic costs indicated that the cost differential between Bands 2 and 3 is narrower than previously thought (table 6.2).
- Setting a separate Band 4 price ensured that the much higher cost of providing services in Band 4 is reflected in the price.
- A single price in Bands 1–3 would simplify the ULLS price structure and may reduce administrative costs.
- For most access seekers the proposed Band 1 price increase would be more than offset by lower prices for ULLS in Band 3 and for other declared fixed line services such as the WLR and LSS.
- The reduction in the ULLS price in Band 3 may promote further DSLAM investment in Band 3 ESAs.
- Setting an averaged Band 1–3 price may ease industry’s transition to national wholesale pricing for the NBN and promote industry stability, in the context of the then requirement for uniform national average wholesale NBN prices.

In setting an averaged Bands 1-3 price, the ACCC weighted the band costs estimated by the FLSM by the share of total SIOs in each band. The ACCC considered that using SIO weights was preferred to alternative weighting options because it would provide greater pricing stability over time.

Approach for estimating geographically adjusted costs

The ACCC estimated geographically adjusted costs of supplying the ULLS (and WLR) in the four geographic band areas when setting prices for the ULLS (and WLR) in the 2011 FAD inquiry.

The methodology used by the ACCC is explained in detail in the April 2011 Discussion Paper.¹¹⁴ Briefly, the ACCC identified the basic network costs associated with the ‘ducts and pipes’ and ‘copper cables’ asset classes, which vary by geographic band.¹¹⁵ By applying the Analysys model band relativities to the national average cost estimated in the FLSM (see table 6.2 below), the costs were estimated in the FLSM for each of the four geographic bands.¹¹⁶

¹¹³ ACCC, *Inquiry to make final access determinations for the declared fixed line services – final report*, July 2011, pp. 103–107.

¹¹⁴ ACCC, *Public inquiry to make final access determinations for the declared fixed line services, Discussion Paper*, April 2011, pp. 140–142, 151–153.

¹¹⁵ A significant proportion of the costs of supplying the ULLS is driven by the length of ducts and pipes and copper cables which vary geographically, and as a result the costs of supplying ULLS in CBD and metropolitan areas are generally lower than in rural and regional areas.

¹¹⁶ The ACCC considered three sources information on geographic cost relativities-the Analysys model and Telstra’s TEA and PIE II models. The ACCC identified major shortcomings with the TEA and PIE II models and used Analysys model cost relativities for determining costs in the four geographic bands.

Table 6.2 Analysys cost relativities from the 2011 FADs

ULLS Bands	Cost relativities of each Band relative to the average
Band 1	0.13
Band 2	0.72
Band 3	1.21
Band 4	2.71
Average	1.00

These basic network costs are the same within each band for supplying the ULLS, WLR and Telstra's retail services. The additional costs of providing the ULLS and WLR (such as costs related to Network Land and Network Buildings and Support assets) are added to the estimated basic network costs to calculate the total cost of providing ULLS and WLR in each band.

The ACCC set geographically differentiated prices for the ULLS (an averaged Bands 1-3 price and a single Band 4 price) as noted in the previous section. A nationally averaged WLR price was set for the reasons set out in the final decision, including consistency with the Government's arrangements for setting retail prices.¹¹⁷

6.1.2 Key issues

This section outlines key issues for the ULLS price structure for the current inquiry.

ULLS price structure

The ACCC notes that the costs of supplying the ULLS vary depending on the geographic area in which the ULLS is supplied. The ACCC has also previously determined that offsetting geographically-disaggregated prices for the ULLS is likely to provide appropriate incentives for investment and competition by reflecting the geographic costs of supply.

The ACCC had regard to a number of considerations when determining the current ULLS price structure (an averaged Bands 1-3 price and a separate Band 4 price).¹¹⁸ The ACCC seeks views on whether the current ULLS price structure should be maintained or whether an alternative price structure would better promote the LTIE.

Approach for estimating geographically adjusted costs

For the 2011 FADs, the ACCC estimated the cost of providing ULLS in each band from geographically differentiated basic network costs (based on relativities from the Analysys model) and other nationally averaged costs. The ACCC seeks views on whether this approach should be maintained for the next regulatory period.

If the ACCC continues to set geographically-disaggregated ULLS prices in the new FADs, the ACCC will require information on the relative costs of supplying ULLS in different areas. The ACCC seeks views on the geographical cost relativities for supplying ULLS in Bands 1 to 4, including whether the relativities are likely to have changed since the 2011 FAD inquiry.

¹¹⁷ ACCC, *Inquiry to make final access determinations for the declared fixed line services – final report*, July 2011, p. 104.

The ACCC seeks views on:

36. Whether the current ULLS price structure (an averaged Bands 1-3 price and a separate Band 4 price) should be maintained for the next regulatory period. If you consider that a different price structure should be adopted for the FAD, please provide details of your proposed alternative price structure. Please give reasons for your answer, including by reference to the LTIE.
37. Should the current approach for estimating geographically differentiated costs of supplying the ULLS be maintained? Please give reasons, including by reference to the LTIE.
38. If you consider that a different method of estimating the geographically differentiated costs of supplying the ULLS should be used, please provide details of your proposed approach and an explanation of why it would be more appropriate, including by reference to the LTIE.
39. Are the geographical cost relativities for Bands 1 to 4 likely to have changed since the 2011 FAD inquiry? If yes, please provide evidence to support your answer and propose a method for the ACCC to obtain more up-to-date information on the relative costs of supplying the ULLS. If no, please give reasons for your answer.

6.2 FOAS/FTAS pricing

The fixed originating access service (FOAS) enables a telephone call to be connected from the caller to a point of interconnection with another network, while the fixed terminating access service (FTAS) enables a telephone call to be carried from the point of interconnection to another party being called on another network.

This section outlines the key issues for the current FAD inquiry regarding the price structure for FOAS and FTAS charges.

6.2.1 Price structure for the 2011 FADs

Until 2011, a two-part tariff structure for pricing FOAS and FTAS was used, being first adopted in 2003. This was in the form of a matrix of charges, consisting of different flagfall rates and per end minute of use (EMOU) rates in four distinct geographic areas-CBD, metropolitan, rural and regional.¹¹⁹

In the 2011 FAD inquiry, the ACCC considered two options for setting prices for the FOAS and FTAS services. One option was to update the FOAS and FTAS price matrix using updated traffic pattern data. The second option was to implement a national average rate for the services, with the opportunity for access providers and access seekers to negotiate disaggregated commercial service charges.

The ACCC decided to set a single national average price for FOAS and FTAS using the national average cost estimated by the FLSM. The ACCC set the national average price for both FOAS and FTAS for the period 1 July 2011 to 30 June 2014 to be 0.95 cents per minute.

The ACCC considered that the national average price was in the LTIE as it reflected the underlying costs of providing the service.¹²⁰ The ACCC also considered that a negotiated price

¹¹⁹ ACCC, *Public inquiry to make final access determinations for the declared fixed line services, Discussion Paper*, April 2011, p. 145.

¹²⁰ ACCC, *Inquiry to make final access determinations for the declared fixed line services, Final Report*, July 2011, p. 144.

structure between access seekers and Telstra would also be in the LTIE as it would reflect access seekers' own circumstances.¹²¹

In making its assessment, the ACCC took into account the ACCC's previous pricing matrix, pricing structures adopted overseas (where geographically de-averaged charging appears to be uncommon)¹²² and information provided by Telstra and access seekers in response to a request for further information. The ACCC also considered the PIE II and Analysys models. However, the ACCC did not have any confidence that using these models to derive cost relativities could generate accurate, cost reflective charges.¹²³

Regarding the two-part tariff structure, the ACCC did not have cost information to support assumptions on cost relativities between flagfall and EMOU charges. Therefore, the ACCC considered that the information before the ACCC did not provide a reliable basis for determining a de-averaged price matrix (including a two-part tariff).¹²⁴

6.2.2 Key issues for consideration:

The ACCC will consider whether to set a single national average price for the FOAS and FTAS services in the next FADs or adopt an alternative approach. In considering this, there are a number of issues which the ACCC will take into account, including whether the approach is likely to promote the LTIE and the other legislative criteria, geographic variations in the costs of supplying FOAS and FTAS and the availability of reliable information necessary to implement an alternative price structure for FOAS and FTAS charges (such as a two-part tariff structure).

Ability for access seekers to negotiate disaggregated charges under the current regime

In adopting a national average price, the ACCC noted that access providers and access seekers would have the option to negotiate disaggregated charges if they chose to do so.¹²⁵ The ACCC notes that, in contrast to most other regulated services, many retail service providers are both access providers and access seekers for the FTAS service.

The current approach allows access seekers to negotiate with other FTAS access providers terms that would be mutually beneficial. The ACCC considered that setting a regulated price that was (on average) cost reflective that could also act as an appropriate reference point for any negotiations.

The ACCC would like to understand whether access seekers and access providers have sought to negotiate disaggregated charges for FOAS and FTAS, and gauge the relative success of such negotiations. The ACCC is seeking feedback on this process and what, if any, impediments have occurred that may have prevented negotiations from occurring.

Geographic cost differences and data availability

In order to consider alternatives to setting a single national average price for FOAS and FTAS, the ACCC would require accurate information to determine whether there are significant cost differences that vary in order to generate disaggregated charges.

If there are significant geographic cost differentials in the supply of FOAS and FTAS, adopting a price matrix may have an advantage in providing price signals which would allow for a more efficient use of network elements. The ACCC would need to have reliable evidence that there are significant differences in the cost of before it reconsidered disaggregated charges.

¹²¹ Ibid.

¹²² ACCC, *Public inquiry to make final access determinations for the declared fixed line services, Discussion Paper*, April 2011, pp. 146-148.

¹²³ ACCC, *Inquiry to make final access determinations for the declared fixed line services, Final Report*, July 2011, pp. 107-108

¹²⁴ ACCC, *Inquiry to make final access determinations for the declared fixed line services, Final Report*, July 2011, p. 108

¹²⁵ Ibid., p. 108.

If it could be demonstrated that costs on the network vary significantly on a geographic basis, and reliable information on these cost differentials could be obtained, it may be feasible and appropriate to determine a price matrix for FOAS and FTAS charges.

Similarly, information on the extent to which costs are fixed or variable would be relevant to determining whether a two-part tariff structure (based on flagfall and EMOU) would be appropriate. If reliable information is available on the fixed and variable components of the costs of supplying FOAS and FTAS, disaggregation of charges into a two-part tariff may improve price signals and investment incentives for industry.

The key obstacle when considering reintroducing a price matrix is the availability of the necessary data. The ACCC would require up-to-date, verifiable cost information underpinning the cost relativities used for geographic-based and two-part pricing in order to consider this option.

Other Issues

As discussed above, the approach from the 2011 FAD to setting price terms for FOAS and FTAS was to use the FLSM, which is based on Telstra's historic and forecast costs in relation to its existing network (including legacy switching equipment and ubiquitous transmission network).

FTAS applies to, and is relied on for, the provision of access to voice termination services on a range of fixed line networks, including those of Telstra and other retail service providers (sometimes referred to as non-dominant networks). The terms and conditions included in the 2011 FAD currently apply to FTAS supplied over all networks, where the service is covered by the declaration service description. The ACCC will consider submissions on whether it is appropriate for the same pricing approach and price structures for FTAS to continue to apply for both dominant and non-dominant networks. Parties would need to give reasons, including by reference to the LTIE and the other legislated criteria.

An additional issue that may be relevant to the price structure for FOAS and FTAS is the rollout of the NBN and any implications this may have for the provision of services. As the NBN rollout progresses, it is expected that the way FTAS is supplied (and where applicable FOAS) and the costs associated with the service will change. For example, the technology used to supply switching services may be changing from legacy to IP switching equipment, and the extent to which retail service providers' transmission networks are used to supply the service may be more limited (i.e. to interconnecting with the NBN Co POIs). The ACCC invites parties to comment on what implications (if any) these issues could have for the provision of FOAS and FTAS for the forthcoming regulatory period.

The ACCC seeks views on:

40. Whether the ACCC should maintain the current national average price structure or adopt a different price structure for FOAS and FTAS. If you consider a different price structure should be adopted, you should give details of your proposed structure. Please give reasons for your answer, including by reference to the LTIE.
41. Do you consider that there are significant geographic cost differentials in supplying FOAS and FTAS? Please give evidence to support your answer.
42. What information is available on any significant geographic cost differences in supplying FOAS and FTAS? Please comment on the reliability and any limitations of this data.
43. What information is available on the fixed and variable costs of supplying FOAS and FTAS? Please comment on the reliability and any limitations of this data.
44. Have you negotiated disaggregated FOAS or FTAS prices with any other parties? If so, please provide details of the other party and the negotiated charges. If negotiations have been unsuccessful, please give details about the negotiations and your view of

the reasons for the failure to agree.

45. Are there other issues, such as non-dominant network or the rollout of the NBN, which the ACCC should take into account in setting regulated terms and conditions for FOAS and FTAS? Please give reasons for your answer, including by reference to the LTIE.

6.3 Wholesale ADSL pricing

The wholesale ADSL service comprises of a number of network elements to provide connectivity from the end-user premises to the Point of Interconnection (PoI) with the access seeker's network.¹²⁶ The service involves a local access component from the network termination point at the customer premises to the local exchange, and a backhaul transmission and data aggregation component between the local exchange and the PoI.

The backhaul transmission component aggregates and combines data from the service provider's end-users (including end-users physically connected to different DSLAMs) into a single traffic 'stream' for delivery to the access seeker. The backhaul interface can be either an AGVC or VLAN (using either ATM or Gigabit Ethernet as the transport protocol respectively).

In its May 2013 FAD decision for the Wholesale ADSL service, the ACCC decided to adopt a price structure for the service based on:

- Fixed and capacity based charges – port and AGVC/VLAN charges
- Geographically differentiated port pricing based on zones.

The 2013 FAD set prices for 2013-14 as follows:

Table 6.3 2013-14 Wholesale ADSL FAD prices

Port price – Zone 1	\$24.44 per month
Port price – Zone 2/3	\$29.66 per month
AGVC/VLAN (per Mbps)	\$32.31 per month

The issues regarding this price structure are discussed in the sections below.

6.3.1 Price structure for the 2013 FAD

6.3.1.1 Port and AGVC/VLAN charges

Prior to the ACCC's declaration of the service, Telstra had typically supplied wholesale ADSL via a two-part pricing structure:

- A fixed 'port' (or end-user access) charge for each ADSL service in operation (SIO)

¹²⁶ The PoI is typically at a CBD exchange in the relevant state.

- A capacity-based 'Aggregating Virtual Circuit' (AGVC) charge.¹²⁷

In the 2013 Wholesale ADSL FAD final decision, the ACCC decided to maintain the use of the port and AGVC pricing structure.¹²⁸ The ACCC considered that a two-part pricing structure was likely to be more cost reflective (when compared with a single per-SIO charge) as it recognised that the supply of Wholesale ADSL involves fixed costs and costs that vary (over time) with data used (i.e. as greater network capacity is needed to meet higher demand for data).

The ACCC considered that the AGVC price structure, where access seekers' costs vary with the amount of AGVC capacity required to supply their end-users' data usage, would provide appropriate price signals regarding the use of network capacity. In particular, the ACCC considered that the price structure would promote the LTIE by providing price signals that would encourage greater efficiency in the use of network capacity and promote efficient investments in expanding network capacity.

Methodology for determining relative port and AGVC charges

Determining the allocation of costs between the AGVC and port charges presented challenges. The ACCC determined prices for Wholesale ADSL using the FLSM, which is a building block model that estimates prices for services based on information regarding the actual and forecast costs to be incurred by Telstra. The FLSM calculated a per SIO revenue requirement for wholesale ADSL, which then needed to be allocated between port and AGVC components.

The largest contribution to the revenue requirement for the wholesale ADSL services comes from the data equipment asset class (which includes equipment such as DSLAMs, Broadband Remote Access Servers (BRAS), IP switches and routers), transmission and inter-exchange cable costs, along with an allocation of indirect costs.

The ACCC did not have robust information that would allow it to determine the port and AGVC charges on a cost-reflective basis. The ACCC also noted that the AGVC and port components have been typically considered a 'pricing construct' rather than providing access to a specific part of Telstra's network. For example, access seekers purchase AGVC capacity on a state-wide basis, rather than dedicated capacity on particular transmission routes (as would occur for, say, a DTCS link).

Given these issues, the ACCC decided to allocate the per SIO costs between the port and AGVC charges based on the price relatives previously used in the Interim Access Determination (IAD) model.¹²⁹ This allocation was based on Telstra's previous relativities between the two charges. The approach resulted in a [c-i-c starts] [c-i-c ends] per cent of the revenue requirement per SIO being used to calculate the AGVC charge and [c-i-c starts] [c-i-c ends] per cent of the revenue requirement per SIO used to derive the port charges.

In its 2013 FAD final decision, the ACCC noted that it was open to considering cost-based approaches to determining how to allocate wholesale ADSL costs between port and AGVC charges in the future. More generally, the ACCC also noted that it may review the allocation between port and AGVC in the new FAD inquiry, should further information become available.

Methodology for determining a monthly AGVC charge

¹²⁷ An AGVC is technically only used to support customers on older Asynchronous Transfer Mode (ATM) protocol DSLAMs. Customers on newer Ethernet protocol DSLAMs require an Ethernet AGVC equivalent – a Virtual Local Area Network (VLAN). The 2013 FAD set the same price for the AGVC and VLAN products.

¹²⁸ The ACCC's final views regarding the AGVC/port charge pricing structure for wholesale ADSL can be found at ACCC, *Public inquiry to make a final access determination for the Wholesale ADSL services, Final Report*, May 2013, pp. 45–51.

¹²⁹ For the 2012 IAD, the ACCC set prices using a Retail Minus Retail Cost model, originally supplied by Telstra but amended by the ACCC for the IAD.

In the 2013 wholesale ADSL FAD, the ACCC set an AGVC price that was specified in terms of capacity (in Megabits per second or Mbps), rather than the per SIO output from the FLSM. This reflected the pre-existing structure of Telstra's pricing. Furthermore, charging for AGVC on the basis of capacity, not per SIO, creates more effective price signals regarding usage, as discussed above; an access seeker can purchase the amount of AGVC (in Mbps) it needs to provide network capacity to its end-users and their usage profiles.

In order to determine the monthly AGVC price per Mbps, the ACCC used the monthly AGVC per SIO cost (a portion of the total per SIO revenue requirement from the FLSM) and a forecast of usage (in Mbps) per SIO.¹³⁰ The ACCC noted that one implication of this approach is that the price of AGVC per Mbps would decrease as traffic on the network increases (although, the costs of supplying the service (and prices estimated in the FLSM) may increase overall, for example if there was significant investment in expanding network capacity to cater for growing traffic volumes). However, under the approach adopted, average revenue per SIO would remain the same, as (on average) more AGVC capacity would need to be purchased to meet the growth in data usage. The ACCC noted this approach could reflect the economies of scale relating to AGVC-type services.

6.3.1.2 Geographic pricing

Prior to the declaration of the wholesale ADSL service, Telstra adopted a geographic 'zone' structure in setting wholesale ADSL prices for most, but not all, access seekers. The monthly port charge paid by access seekers was dependent upon the zone in which the end-user was located.

A two-zone structure was adopted for setting prices. The first of these zones (Zone 1) comprised ESAs that are predominantly located in metropolitan areas, but also includes some regional areas. Zone 2/3 comprises all ADSL-enabled ESAs that are not included in Zone 1.

In the 2013 FAD, the ACCC decided to maintain the two zone pricing structure and set geographically-differentiated prices in the FAD.¹³¹ The ACCC considered that there were likely to be material cost differences in supplying wholesale ADSL services in different geographic locations. For example, cost differences are likely to arise from the longer transmission links and lack of scale in serving regional and rural areas. The ACCC considered that maintaining the geographic zone pricing structure for wholesale ADSL port prices would have efficiency benefits. By more closely aligning prices with underlying costs of supply (subject to available cost information), this would create incentives for more efficient use of and investment in the infrastructure used to supply wholesale ADSL services. However, the ACCC recognised that Telstra's zone construct was not necessarily based on cost differentials and specific evidence on cost differentials between urban and rural/regional areas was not available.

Methodology for setting geographically based prices

During the wholesale ADSL FAD inquiry, cost information was only available at an aggregated level (i.e. not disaggregated by geographic areas). In the absence of specific cost information, the ACCC considered that Telstra's zone pricing construct provided an approximation of ESAs where the costs of supplying broadband were relatively higher. Telstra noted that it may be

¹³⁰ Monthly AGVC price per Mbps = Monthly AGVC per SIO cost (from FLSM) ÷ Forecast average peak AGVC usage (in Mbps) per SIO (for the relevant year). The AGVC usage forecasts took into account usage by both retail and wholesale ADSL SIOs on Telstra's network.

¹³¹ The ACCC's final views regarding the geographic pricing structure for wholesale ADSL can be found at ACCC, *Public inquiry to make a final access determination for the Wholesale ADSL services, Final Report*, May 2013, pp. 51-53.

able to provide updated evidence on how costs vary between different geographic areas as part of the FAD inquiry for the next regulatory period.¹³²

In the absence of robust cost information, the ACCC decided to set geographically differentiated prices port prices based on the price relativities derived from the IAD RMRC model (discussed above). The ACCC considered that maintaining the price relativities from the IAD would recognise geographic cost differences of supply. The IAD price relativities were applied to the average cost per SIO from the FLSM (after the AGVC component was removed) to determine port prices. The relativities resulted in a Zone 1 port charge of \$24.44 per month and a Zone 2/3 port charge of \$29.66 per month.

6.3.2 Key issues

6.3.2.1 Port and AGVC/VLAN charges

The ACCC considers that there may be merit in maintaining a two-part (port and AGVC) pricing structure for the next regulatory period. A two-part pricing structure would provide price signals that recognise that the supply of wholesale ADSL involves fixed costs and costs that vary (over time) with data used. However, the ACCC will consider alternative pricing structures proposed by parties.

Methodology for determining relative port and AGVC charges

The ACCC is seeking submissions on an appropriate method for determining how wholesale ADSL costs should be recovered from port and AGVC charges (if a two-part price structure is retained). As previously noted, the ACCC will require information, or a methodology, by which to determine the share of costs recovered from the fixed and variable charges, respectively.

The ACCC notes that recovering a greater proportion of costs from the AGVC charge may provide a stronger price signal about use of network capacity. There has been continued growth in data traffic across all broadband networks. The ABS reported that downloads for fixed line broadband services increased by approximately 36 per cent from December 2012 to December 2013 – from 526,472 Terabytes (TB) to 823,421 TB.¹³³ This can be contrasted with relatively slow growth in retail and wholesale ADSL SIO numbers in recent years. Telstra has reported that its retail broadband SIOs increased by 6.1 per cent and wholesale broadband SIOs increased by 2.1 per cent between December 2012 and December 2013.¹³⁴ Therefore, it may be that growth in data usage, rather than SIO growth, is accounting for a larger share of the costs of supplying the wholesale ADSL service. As such, it may be appropriate that the AGVC charge, which relates to usage of network capacity, be adjusted to reflect a great proportion of costs of supplying the wholesale ADSL service.

In addition to providing incentives regarding network usage generally, it may be relevant to consider the extent to which the wholesale ADSL price structure may provide incentives regarding potential congestion issues. The issue of addressing congestion on Telstra's DSL network was raised during the 2012-13 FAD inquiry.¹³⁵ In particular, Telstra submitted that the ACCC should consider setting higher prices for wholesale ADSL to address the potential for congestion on the network. The ACCC decided not to include price terms in the FAD that attempted to address network congestion issues. The ACCC noted that market evidence

¹³² Telstra, *Response to the Commission's Draft Report in the Public Inquiry to make a final access determination for the wholesale ADSL service*, 5 April 2013, p. 18; ACCC, *Public inquiry to make a final access determination for the Wholesale ADSL services, Final Report*, May 2013, pp. 51–53.

¹³³ ABS, 8153.0 – Internet Activity, Australia, December 2013 (issued 8 April 2014). The volume of data downloaded is based on information reported for the 3 months prior to the reference date (e.g. 30 December 2013).

¹³⁴ Telstra, Half-year 2014 financial results supporting material.

¹³⁵ ACCC, *Public inquiry to make a final access determination for the Wholesale ADSL services, Final Report*, May 2013, pp. 24–26.

suggested that congestion management was not a primary objective for retail ADSL service providers and that, without measures at the retail level, any attempts to implement a price measure to address congestion for wholesale ADSL would likely be ineffective and negatively impact competition. The ACCC did note, however, that in the event that Telstra implemented price structures which actively managed congestion at the retail level, the ACCC may further consider the implications for wholesale pricing in future inquiries.

The ACCC seeks submissions on methodologies for determining the share of costs between recovered from AGVC and port charges for the wholesale ADSL service.

Methodology for determining a monthly AGVC charge

In the 2013 FAD, the ACCC determined a monthly per Mbps AGVC charge. The ACCC is seeking submissions on whether setting the AGVC charge on a per Mbps-basis is reasonable and whether the ACCC's current methodology for determining this charge is appropriate. Parties are invited to propose alternative methodologies and comment on the relative merits of these approaches.

Depending on the methodology adopted for determining the AGVC charge, there may be merit in considering over what period to set AGVC charges. One option is for the ACCC to determine an AGVC charge that applies for the duration of the FAD. Alternatively, the ACCC could set different AGVC charges over the FAD period which reflects expected changes in data traffic. The second option would recognise the economies of scale involved in providing the AGVC and provide stronger price signals about usage of network capacity. The ACCC adopted the second option in the 2012 IAD for the wholesale ADSL service, where charges were set for 6 month periods, and in the 2013 FAD, where the ACCC set the AGVC for a one year period, based on forecast average peak usage over 2013-14.

Given that the forthcoming regulatory period will extend over more than one year, it may be appropriate for the ACCC to set different AGVC charges, for example for each year of the FAD, based on forecast traffic over the regulatory period. The ACCC is seeking submissions on how AGVC prices should be set in the FAD.

The ACCC seeks views on:

46. Whether the ACCC should maintain a two-part pricing structure for the wholesale ADSL service. Please describe how a two-part pricing structure should be implemented (for example, using port and AGVC charges) and give reasons for your answer, including by reference to the LTIE.
47. If a two-part pricing structure is retained, how should the ACCC determine the appropriate proportion of costs to be recovered from the fixed and usage charges? What factors should the ACCC take into account and what information is available to assist the ACCC in determining this proportion? Please give reasons and provide evidence where available.
48. Should the ACCC maintain the approach of setting an AGVC charge on a per Mbps basis? Does the previous methodology remain appropriate? Should AGVC charges vary over the FAD to reflect changes in forecast traffic? Please give reasons for your answer and provide details if you propose an alternative approach.

6.3.2.2 Geographic pricing

The ACCC is seeking submissions on whether geographically-differentiated port prices for the wholesale ADSL service should be set for the forthcoming regulatory period. Parties may wish

to consider the competition and efficiency effects of a geographically disaggregated pricing approach, compared with alternatives, such as a uniform national average price.

Methodology for setting geographically based prices

The ACCC is seeking submissions on whether Telstra's zone structure, and the distribution of ESAs to zones, is an appropriate basis for determining geographically differentiated prices, or whether an alternative zone structure should be considered and why. The ACCC received submissions to the 2013 wholesale ADSL FAD on potential issues with the current zone structure, for example, certain ULLS Band 2 metropolitan ESAs being classified in Zone 2/3. The ACCC also received submissions supporting greater consistency in the classification of geographic areas across different services. At the time of the 2013 FAD, the ACCC did not consider it appropriate to implement changes to the zone structure, in particular given the complexity of the issues and because they were raised at a late stage of the inquiry, but the ACCC noted that these issues could be reconsidered during the new inquiry.

The ACCC is seeking submissions on how to estimate appropriate price relativities for determining prices for each zone. In order to assess the cost differences between geographic areas, it would assist the ACCC for parties to submit information on how costs vary in supplying ADSL services across different geographic areas. Costs may, for example, differ with transmission network distances and the significance of economies of scale may differ between regions. In considering methodologies for geographic pricing, the ACCC will have regard to the cost information provided to the inquiry or otherwise available to the ACCC.

The ACCC seeks views on:

49. Whether the ACCC should continue to set geographically differentiated port charges for the wholesale ADSL service? If so, how should the prices be determined? Please give reasons, including by reference to the LTIE, and any evidence that is available to support your view.
50. What information is available on cost differences in supplying ADSL services in different areas? Are there any limitations on this data?
51. Does the current zone structure represent a reasonable allocation of ESAs into high and low cost areas for the purpose of setting geographically-differentiated prices for the wholesale ADSL service? Please give reasons for your answer and provide details of any alternative zoning approach that you consider would be preferable.
52. Are the cost relativities used in the 2013 FAD still an appropriate basis for determining geographically differentiated prices? Please give reasons and any supporting evidence.
53. Are there alternative geographic price structure options that the ACCC should consider? Please give details of any proposed alternatives and your reasons for proposing them.

7 Impacts of the National Broadband Network

Key Points

- The National Broadband Network (the NBN) will replace Telstra's fixed line network as the infrastructure used to provide fixed line telecommunications services in Australia.
- Telstra and NBN Co have made arrangements for the migration of customers to the NBN, the lease of certain Telstra infrastructure by NBN Co and the sale of certain infrastructure to NBN Co.
- The ACCC proposes to account for the implications of the transition to the NBN for Telstra's fixed line network in determining prices for declared services as part of the forthcoming FADs.
- There are likely to be a range of potential options for accounting for the impacts of the NBN. The key issue to be considered is how to quantify the impacts of the arrangements between Telstra and NBN Co for the purpose of setting prices for declared services.

7.1 Introduction

The National Broadband Network (the NBN) will replace Telstra's fixed line network as the infrastructure used to provide fixed line telecommunications services in Australia. The transition from Telstra's fixed line network to the NBN will occur under arrangements between Telstra and NBN Co to migrate customers to the NBN and for NBN Co to lease and acquire certain infrastructure from Telstra. These arrangements will have significant impacts on the way Telstra's fixed line assets are used and are important considerations in determining prices for declared services.

The ACCC did not make any specific adjustments to prices for declared services to account for the impacts of the NBN in the 2011 final access determinations (FADs).¹³⁶ This was due to insufficient certainty about the timing of the NBN rollout and a number of other commercial and regulatory matters, and the expected minor impact the NBN would have for Telstra over the three-year regulatory period. However, it indicated that it would develop and consult on the design of the fixed line services model (the FLSM) to take into account the impact of the NBN rollout for the next regulatory period.

The current arrangements between Telstra and NBN Co were formalised in June 2011 through the 'Definitive Agreements'. The Definitive Agreements, in their current form, reflect a predominantly fibre-to-the-premises (FTTP) network design for the NBN and provide for the following key elements:

- customers will be migrated from Telstra's fixed line network as the NBN is rolled out
- NBN Co will lease certain infrastructure from Telstra
- certain assets will be transferred from Telstra to NBN Co.

The Definitive Agreements also provide for migration payments and infrastructure payments to be made by NBN Co to Telstra:

¹³⁶ ACCC, *Public inquiry to make final access determinations for the declared fixed line services – final report*, July 2011, pp.32–33.

NBN Co will pay Telstra a one-off migration payment for each end-user disconnected from its copper network when they are migrated to the NBN in areas covered by NBN Co's fibre network.

NBN Co will pay Telstra ongoing infrastructure payments for the lease of certain infrastructure. NBN Co will lease ducts, rack space in exchange buildings, and dark fibre (optical fibre with no active electronics attached) from Telstra. NBN Co will also pay Telstra a one-off payment for each lead-in conduit (that is, the pipe leading into a customer premise that houses the lead-in copper cable) that is transferred to NBN Co as customers are migrated to the NBN.

Telstra and NBN Co are currently renegotiating the Definitive Agreements to reflect the current government's NBN policy. A central element of this is a change to a 'multi-technology mix' design for the NBN. The multi-technology model provides for a combination of FTTP, fibre to the node (FTTN), and hybrid fibre coaxial (HFC) in the NBN fixed line footprint and depends on the use of some of Telstra's existing copper and HFC assets. These elements of the multi-technology mix were not contemplated by Definitive Agreements made in 2011.

There is uncertainty around the extent to which Telstra's existing copper assets will be used in the NBN, the arrangements between Telstra and NBN Co for the use of these assets and the expected rollout timeframes. These matters, and the associated uncertainty surrounding them, will be key issues for this FAD inquiry (see section 2.1.3 for further discussion on potential options for setting prices in the context of this uncertainty).

This chapter is structured as follows:

- Section 7.2 sets out some potential methods for reflecting the impacts of the NBN in prices for declared services.
- Section 7.3 provides an overview of early submissions by access seekers on the impact of the NBN.
- Section 7.4 sets out issues and questions on which the ACCC seeks stakeholder comment.

7.2 Accounting for the impacts of the NBN

The arrangements between Telstra and NBN Co will fundamentally change the way Telstra's fixed line assets are used. Some assets that are currently used in the supply of declared services will no longer be used for this purpose. For example, some assets will be decommissioned as a result of migration to the NBN while others will be transferred to NBN Co. Further, other assets will be used for both the NBN and in the supply of declared services. As the rollout of the NBN progresses, the share of the network used in the supply of declared services will fall.

The rationale for reflecting the impact of the arrangements between Telstra and NBN Co in prices for declared services is two-fold. First, accounting for the arrangements in prices will ensure that only assets that are used in the supply of declared services are reflected in prices for those services. Second, it ensures that any assets that are used for the NBN and do not create any benefits for users of declared services are not reflected in prices for declared services.

The ACCC considers that the key issue in accounting for the impacts of the NBN is quantifying the impact of the various arrangements between Telstra and NBN Co for the purpose of setting prices for declared services. There are likely to be a number of ways the impact of the arrangements can be quantified for this purpose, each of which will have a range of implications in terms of the statutory criteria, in particular regarding the efficient use of and investment in infrastructure and for competition. The ACCC has given preliminary consideration

to this matter and has identified two distinct approaches to quantifying the impact of the arrangements between Telstra and NBN Co.¹³⁷

The first approach is to base any adjustments to reflect the arrangements between Telstra and NBN Co on the values assigned within the FLSM to the underlying assets affected by the arrangements.

The second approach is to base any adjustments to reflect the arrangements between Telstra and NBN Co on the value of the payments made to Telstra by NBN Co.¹³⁸

The ACCC notes that it is difficult to compare the relative impact of these approaches on prices for declared services. This is partly due to different ways that these approaches could be implemented.¹³⁹ It is also due to limited publicly available information on the value of the payments from NBN Co to Telstra and uncertainty about the timing of the NBN rollout. Notwithstanding this, the ACCC considers that explicitly reflecting the payments from NBN Co in prices for declared services is likely to have a more material impact on prices compared to using values within the FLSM as a basis for reflecting the arrangements. Although the two approaches may lead to different price outcomes, the ACCC considers that explicitly reflecting the payments from NBN Co could be adopted within the current pricing framework without leading to unreasonable outcomes.

The following sections discuss issues that the ACCC considers relevant to quantifying the impacts of the arrangements between Telstra and NBN Co for the purpose of setting prices for declared services. Although the following sections focus mainly on the two potential approaches identified by the ACCC, there could be other methods for accounting for the arrangements between Telstra and NBN Co. The ACCC therefore encourages stakeholders not to confine their submissions on this issue to only these approaches.

Relationship between payments and underlying assets

A key conceptual issue in quantifying the impacts of the arrangements between Telstra and NBN Co relates to the nature of the payments from NBN Co and the link they have to the underlying assets.

On the one hand, there are specific links between the infrastructure payments from NBN Co and specific assets. For example, the leasing payments relate to specific assets, which are all fixed line assets included in the FLSM. Similarly, payments from NBN Co for the purchase of assets relate to specific infrastructure, which is also included in the FLSM.

On the other hand, the migration payments do not relate to specific parts of Telstra's infrastructure. Rather, migration payments are made when customers are migrated to the NBN and disconnected from Telstra's fixed line network.

¹³⁷ The ACCC also considers it possible to adopt a combination of the two approaches identified. This could be achieved by adopting one approach for some transactions and the other approach for other transactions. A combination could also be adopted by using a mid-point between the two approaches as a basis for account for the arrangements between Telstra and NBN Co.

¹³⁸ Under this approach, a share of payments from NBN Co would be reflected in prices for declared services. This share would reflect the relative share of fixed line assets or costs required to supply declared services. The full value of the NBN Co payments would not be reflected in the declared services cost base.

¹³⁹ Further discussion on how the arrangements between Telstra and NBN Co could be implemented in the FLSM is provided in section 8.5.

One view of migration payments is therefore that they have no bearing on Telstra's assets and the resource cost of providing fixed line services. According to this view, any approach to reflecting the arrangements between Telstra and NBN Co based on the impact on underlying assets may not provide for any adjustment to account for migration payments. For instance, if migration payments are considered as purely goodwill payments, they may be considered to reflect unidentifiable intangible assets. The impacts, if any, on the RAB would depend on a detailed assessment of what the goodwill payment represents.

However, another view of migration payments is that, as a natural consequence of migration to the NBN, the number of services provided using Telstra's fixed line network will decline and elements of that network will be decommissioned. If this broader view of migration payments and their impacts on Telstra's infrastructure is adopted, migration payments could be viewed as payments for the loss of fixed line customers and the decommissioning of assets. The implication of this view is that an approach to reflect the arrangements between Telstra and NBN Co based on the impact on underlying assets would include adjustments to account for migration payments, for example by removing decommissioned assets from the RAB.

A further issue is the relationship between the arrangements between Telstra and NBN Co and the fixed line network more generally. For example, elements of the current Definitive Agreements relate to the migration of customers from Telstra's HFC network, which is not included in the fixed line network (as reflected in the asset classes included in the FLSM). If payments from NBN Co were to be explicitly reflected in prices for declared services, any amounts attributable to the migration of HFC customers to the NBN would need to be excluded.

NBN payments as regulated or non-regulated revenue

Although legacy fixed line networks are being progressively replaced by fibre and other next generation networks in many countries, the ACCC is not aware of any other examples where a legacy network is being replaced through arrangements of the kind in place between Telstra and NBN Co. There is therefore only limited regulatory precedent that can inform or guide how these arrangements can be reflected in prices for declared services. However, one issue relevant to a range of regulated industries that may be able to inform or guide discussion is how revenue earned by a regulated entity from unregulated sources is treated in determining regulated prices.

There are a number of useful examples of sectors regulated by the ACCC where regulated entities also earn revenue from unregulated services. Australia Post provides reserved (regulated) services, but a significant part of its business relates to the delivery of non-reserved (non-regulated) services. Similarly, aviation services provided by airports are regulated, but airports also supply a range of unregulated services.

The ACCC has previously adopted a 'dual-till' approach to assess price notifications from Australia Post and Sydney Airport Corporation.¹⁴⁰ Under a dual-till approach, shared costs are separated into a portion reflecting use by regulated services and a portion reflecting use by non-regulated services. This allows the building block model to be applied specifically to the declared or regulated component of the business. Regulated prices are then determined based on the regulated cost base. Revenue from the unregulated side of the businesses is not considered. This approach is effectively equivalent to the first approach identified by the ACCC for quantifying the impact of the arrangements between Telstra and NBN Co, where adjustments are based on the impact on underlying assets.

Another example relates to third party use of electricity distribution infrastructure that is used primarily to supply regulated services. For example, a number of electricity distribution network service providers lease electricity poles to telecommunication companies to install cables. In November 2013, the AER released its Shared Asset Guideline on how the revenue received

¹⁴⁰ See ACCC, *Australian Postal Corporation 2010 Price Notification, Decision*, May 2010; ACCC, *Sydney Airport Corporation Limited's Price Notification for Regional Air Services*, Decision, September 2010; ACCC, *Statement of regulatory approach to assessing price notifications*, June 2009.

from unregulated sources, such as payments from a telecommunication company for the use of a distributor's poles, should be treated in determining prices for regulated services.¹⁴¹ The guideline provides that 10 per cent of revenues received from unregulated services are to be deducted from regulated revenues in any given year (subject to certain materiality thresholds). This approach partially reflects the second approach identified by the ACCC for quantifying the impact of the arrangements between Telstra and NBN Co, where the payments from NBN Co are explicitly reflected in prices for declared services. The Shared Asset Guideline represents a partial adoption of this approach in that revenue from unregulated sources is reflected in the calculation of regulated prices, but only in part.

A further example relates to Telstra's fixed line services itself and how revenue from non-declared products (such as retail voice and broadband services) is treated. Prices for declared services are derived from a declared services cost base, which in turn is based on cost allocations between declared and other fixed line services. Revenue from Telstra's non-declared services is not reflected in the calculation of prices for declared services.

The above examples may provide a useful starting point for considering how to quantify the impacts of the arrangements between Telstra and NBN Co in calculating prices for declared services. However, there are some important differences between the arrangements between Telstra and NBN Co and the examples discussed above. The key difference is that the examples above involve the ongoing provision of both regulated and non-regulated services, whereas the arrangements between Telstra and NBN Co are designed to replace the PSTN fixed line network with the NBN. Although there are parallels between the leasing arrangements between Telstra and NBN Co and the examples above, the migration payments and arrangements for the transfer of assets to NBN Co differ significantly from these examples.

The ACCC notes that there could be arguments for treating the payments from NBN Co as either non-regulated or regulated revenue. On the one hand, the payments from NBN Co could be argued to represent non-regulated revenue because it has not been generated through prices for declared services. A second point of view is that because the payments from NBN Co relate to the migration of customers from the fixed line network and the use and sale of fixed line assets—and that the fixed line network and assets are partly used to supply declared services—these payments should also be treated as regulated revenue and reflected in the declared services cost base.

The ACCC notes that the report by NERA (discussed further in section 7.3) includes a range of examples from other regulated industries and jurisdictions, including the examples discussed above, which could also provide useful context for this issue.

The ACCC also recognises that there may be other ways of considering the NBN payments besides considering them in terms of either regulated or non-regulated revenue, and would welcome any feedback from stakeholders on other potential ways to do this.

7.3 Submissions

The ACCC has received three submissions on how the ACCC should account for the arrangements between Telstra and NBN Co. Two submissions from access seekers¹⁴² were provided in March 2014 in response to the declaration inquiry draft report.¹⁴³

The first access seeker submission was by Optus, which provided a report prepared by NERA. The second access seeker submission was by Herbert Geer on behalf of iiNet and TPG. Herbert Geer provided a report prepared by Frontier Economics (Frontier) on the issue.

The remaining submission was a joint letter from the Minister for Communications and the Minister for Finance, provided in July 2014 (section 7.3.3).

¹⁴¹ Australian Energy Regulator, *Better Regulation: Shared Asset Guideline*, November 2013.

¹⁴² The submissions are available on the ACCC website

¹⁴³ ACCC, *Public Inquiry into the fixed line services declarations – final report*, April 2014.

The following sections summarise the key points raised in the three submissions.

7.3.1 Optus (NERA) submission

NERA proposed two distinct approaches to accounting for the NBN payments in the FLSM. These are:

- the cost approach¹⁴⁴ – whereby the value of assets affected by the arrangements between Telstra and NBN Co is reduced, in recognition of the fact that the costs will be recovered from NBN Co. The RAB value of assets that are decommissioned or sold would be removed from the RAB, while NBN Co's lease of assets would be explicitly reflected in the allocation of costs to ensure NBN Co's use of assets is excluded from the declared services' cost base.
- the revenue approach¹⁴⁵ – whereby the RAB, or the annual revenue requirement derived from it, is reduced to reflect the amount of revenue received by Telstra for providing access to assets that are also included within the RAB. NERA identified two methods to do this: adjusting annually by subtracting the forecast value of NBN Co payments from the annual revenue requirement for the year, or making a one-off adjustment by subtracting the net present value (NPV) of NBN payments from the RAB (NERA argues that these options are equivalent in NPV terms, but that the latter option would be more appropriate for one-off disconnection payments, while the former option would be more appropriate for annual lease payments).

NERA argued that a method for apportioning the RAB value of the shared assets between services would be required under the cost approach. It noted that the ACCC has previously adopted methods for allocating shared costs based on the relative use of assets by relevant services. However, it argued that a substantial amount of additional information would be required to reflect the impacts of the NBN.

NERA argued that the revenue approach would be simpler to apply because the only information needed is the amount of revenue to be received from NBN Co, the value of the annual revenue requirement as calculated in the FLSM, and/or the value of the RAB. It further argued the revenue approach is widely accepted by regulators when the risk of less efficient outcomes may offset the high information and compliance burden of the cost approach.

NERA concluded that:

- the cost and revenue approaches give rise to different outcomes, depending on the quantum of the NBN revenue relative to the existing RAB value of the assets either being disposed of or used for both declared services and use by NBN Co
- the cost approach has the potential to support the LTIE, since it would encourage the efficient use of the CAN through prices that reflect the long run cost of the assets employed, providing that the allocation of costs for shared assets is done accurately and that the disposal and RAB values are aligned, and
- the LTIE is best served by the methodology that delivers the lowest wholesale access price, providing this would lead to a material increase in the extent to which Telstra's fixed line network is used. This objective is more likely to be achieved by the revenue approach.

¹⁴⁴ The cost approach proposed by NERA is equivalent to the first approach identified by the ACCC, where any adjustments to reflect the arrangements between Telstra and NBN Co are based on the impacts to the underlying asset.

¹⁴⁵ The revenue approach proposed by NERA is equivalent to the second approach identified by the ACCC, where the payments from NBN Co are explicitly reflected in prices for declared services.

7.3.2 iiNet-TPG (Frontier Economics) submission

Frontier focused on the question of whether the payments from NBN Co result in additional net benefit for Telstra, and if so, whether this benefit should be shared with access seekers.

Frontier identifies three principles relevant to this question:

- regulation should facilitate recovery of efficient costs and no more
- access seekers and end-users should not compensate Telstra for lost profits
- access services should bear a reasonable share of common costs, allocated on a transparent basis.

Based on these principles, Frontier made the following arguments:

- it is reasonable for Telstra to be paid when it disconnects customers from its copper network to compensate it for the value of sunk assets which will be stranded as the NBN is rolled out. However, since the size of the disconnection payments will likely exceed the regulatory value of the assets that will be decommissioned, this may result in over-recovery of Telstra's actual costs unless the actual payments are deducted from Telstra's RAB. End-users should be entitled to the resulting fall in retail service prices (to the extent that they are passed on by retail service providers) even if it means that they will later face a steep price increase when they migrate to the NBN.
- for shared assets that are simultaneously used by NBN Co and used to provide declared services, Telstra will recover the cost of the asset through regulated revenues and will in addition receive rental payments from NBN Co, leading to over-recovery. This is because the current methodology used to allocate fixed line costs to the declared services does not explicitly take into account any third party use of Telstra's assets. To correct this, a variation to the cost allocation methodology would be required to ensure that NBN Co's use of assets is properly accounted for. This would in turn reduce the costs allocated to those declared services.
- The magnitude of the payments from NBN Co is significant. The headline figure of \$9 billion in post-tax NPV terms is likely to understate the value of the payments from NBN Co. Further, there are likely to be implications for the Telstra-NBN Co arrangements in light of a move to a multi-technology approach. The use of FTTN in parts of the network will likely mean a reduction in payments to Telstra for duct access and lead-in conduits. However, this will also lead to an increase in payments for 'last mile' copper lines, which will more than offset lost payments from duct access and lead-ins. The net effect is a likely increase in NBN payments.

7.3.3 Joint letter from the Minister for Communications and the Minister for Finance (joint ministerial letter)

The Minister for Communications and the Minister for Finance wrote to the ACCC on 16 July 2014 regarding NBN Co payments to Telstra and the submissions provided to the FAD inquiry by access seekers (discussed in sections 7.3.1 and 7.3.2).

The joint ministerial letter stated that NBN payments to Telstra should not be a consideration when determining prices for the declared fixed line services and noted a number of reasons including:

- Consideration of the NBN payments would affect the integrity of the deal between Telstra, NBN Co and the Government to achieve structural reform of the telecommunications sector as effected in the DAs. The letter states that this may affect Telstra's commitment to current reforms and any proposed amendments to the DAs.

- Price stability is a consideration for the transition to the NBN. The letter states that accounting for the NBN payments in a way that could reduce prices for the declared fixed line services could delay migration to the NBN, and affect the rollout of the NBN, the viability of NBN Co and the objective of structural separation.
- Accounting for the NBN payments is complex. The letter states that the payments do not closely resemble Telstra's regulated revenue from fixed line services and the nature and value of the payments may change under possible amendments to the DAs. The letter also noted that many variables need to be considered when accounting for the payments.

However, the letter also noted that the ACCC could consider that the regulatory revenue requirement will be broadly proportional to changes in the volume of services and that a fixed principle to this effect would have a number of benefits, including regulatory certainty during a period of industry transition.¹⁴⁶

The letter stated that the Government intends to make a formal submission further detailing its views on these matters in response to this discussion paper.

7.4 Issues for consultation

The ACCC seeks stakeholder feedback on the following issues/questions relating to the impacts of the NBN.

The ACCC seeks views on:

54. The implications of the NBN rollout for the pricing of declared fixed line services.
55. The implications for efficient use of and efficient investment in infrastructure arising from the various options for the impacts of the NBN.
56. The implications for competition arising from the various options for accounting for the impacts of the NBN.
57. What are the implications of accounting for the arrangements between Telstra and NBN Co based on the use of the underlying assets? What are the implications of accounting for the arrangements based on the value of payments from NBN Co?
58. What other options are there for quantifying the impact of the arrangements between Telstra and NBN Co?
59. How should the migration payments from NBN Co to Telstra be viewed for the purposes of the next FADs?
60. Can the payments from NBN Co be conceptualised as either non-regulated revenue or regulated revenue?

¹⁴⁶ M Turnbull (Minister for Communications) and M Cormann (Minister for Finance), correspondence, 16 July 2014 (published on ACCC website).

8 Other pricing issues

Key Points

- More technical pricing issues for consideration during the FAD inquiry are:
 - Cash flow timing and the appropriateness of the half-WACC adjustment
 - Cost of capital
 - Calculation of the taxation allowance
 - Approach to indexing within the FLSM
 - Accounting for the Telstra-NBN Co arrangements in the FLSM

This chapter discusses a number of more technical pricing issues that will be considered when determining primary prices for the declared fixed line services. Questions and issues on which stakeholder views are sought are grouped at the end of the chapter.

8.1 Timing of cash flows

For modelling simplicity and transparency, the FLSM assumes that all capital-related revenues (that is, the return on and return of capital) and operating expenditures occur at the end of year.

However, the assumption that revenue inflows and the expenditure outflows occur at the end of year may be restrictive because building block revenue receipts and expenditure outlays actually occur throughout the year. As a result of these end-of-year timing assumptions, capital income accruing to the firm is greater than if the timing of revenue inflows and expenditure outflows were estimated more precisely.

There are two sources of higher capital income arising from the end-of-year timing assumptions:

1. The FLSM assumes depreciation occurs at the end of the year in the form of a lump sum. However, since BBM revenue is actually received throughout the year, capital is also returned to investors throughout the year, so that the value of the RAB begins falling well before the assumed depreciation event at the end of the year. The RAB declines whenever there is a return of capital (BBM revenue) event, which may be monthly, weekly or even daily. Therefore, if the return on capital is estimated precisely, it would be based on a declining RAB value throughout the year.

However, because all depreciation is assumed to occur at the end of the year, the allowed return on capital is based on the RAB opening value at the start of the year, and not on the basis of the declining intra-year value of the RAB. Therefore, under the end-of-year timing assumption for depreciation, the allowed return on capital is greater than if the model (more precisely) assumed that depreciation occurred throughout the year.

2. Since the receipt of the return on and of capital actually occurs throughout the year, investors receive capital income sooner than when it is assumed to be received – at the end of the year. The capital income received throughout the year may be immediately reinvested, so that the total return on capital accruing to investors is greater than the end-of-year allowed return on capital.

A hypothetical example illustrates the point. Suppose that the regulated firm's annual allowed capital income is $WACC.RAB_t^{start} + Depreciation_t$, and this income is assumed to arrive at the end of the year. Now suppose that the regulated firm actually receives this capital income in the middle of the year. Since the capital income is received mid-year and can be immediately reinvested, the firm receives a further half year return on the capital income it has received, so that the actual annual capital income is: $WACC.RAB_t^{start} + Depreciation_t + (WACC.RAB_t^{start} + Depreciation_t)[(1 + WACC)^{0.5} - 1]$

Therefore, the *additional* annual capital income that accrues to the firm is equal to $(WACC.RAB_t^{start} + Depreciation_t)[(1 + WACC)^{0.5} - 1]$.

The additional capital returns, which arise from the FLSM's end-of-year timing assumption for the return on and of capital, are known as the 'returns accruing to the cash flow timing assumptions'.

Non-capital revenue and operating expenditure are also assumed to occur at the end of the year. This assumption may also be restrictive, since allowed revenue inflows and operating expenditure outflows actually occur throughout the year. However, there are unlikely to be returns accruing to these cash flow timing assumptions because the revenue inflow throughout the year may be spent immediately on operating expenditure to sustain ongoing operations of the firm (by the definition of operating expenditure). For the tax building block, the FLSM assumes that tax liabilities are paid at the end of the year. Since it is difficult to assess the actual timing of tax payments relative to the timing of income earned, the assumption of timing coincident with the end of the regulatory year may be a reasonable assumption. Therefore, the returns accruing to cash flow timing assumptions normally pertain to the end-of-year timing assumption for the return on and of capital.

The potential over-compensation that arises from these cash flow timing assumptions may warrant consideration of whether or not the allowed return on capital should be adjusted to balance potential over-compensation. One potential adjustment may be the removal of the half year return on capital expenditure, which is currently permitted in the FLSM (discussed below).

8.1.1 The half year return on capital expenditure in the FLSM

The RAB in the FLSM is updated each year to reflect that year's capital expenditure, depreciation and asset disposals. In this way, capital expenditure is not a direct component of the revenue requirement (as operating expenditure is), but rather is rolled into the RAB. The costs of financing capital expenditure are recovered through the revenue requirement with the return on capital and the return of capital. Capital expenditure undertaken throughout a given year will be added to the closing RAB for that year. The return on capital for the following year is then calculated as the product of the opening RAB (which is simply the previous year's closing RAB) and the WACC.

It is assumed in the current version of the FLSM that capital expenditure is incurred evenly throughout each year — half way through the year on average. To compensate the access provider for the period of time between when capital expenditure is incurred (mid-year on average) and when a return is provided (at the beginning of the following year), a half-year WACC adjustment is applied to capital expenditure as it is rolled into the RAB. This means that as capital expenditure is added to the RAB, it is inflated by approximately half of the WACC. The RAB roll forward equation in the FLSM, and the 'half-WACC adjustment' to capital expenditure, can be represented formulaically as follows:

$$RAB_t^{end} = RAB_t^{start} + Capex_t(1 + WACC)^{0.5} - Depreciation_t - Disposals_t$$

Conceptually, it would appear to be appropriate to apply the half-WACC adjustment when considering capital expenditure in isolation, because capital expenditure tends to be fairly evenly distributed over each year.

However, in the September 2010 draft report on the telecommunications access pricing principles, the ACCC noted concerns about the potential for over-compensation arising from the use of the half-WACC adjustment.¹⁴⁷ At that time, the ACCC considered that any over-compensation would likely be minor, but indicated that it may consider the issue further if it received information suggesting otherwise.¹⁴⁸ In response to submissions which questioned the appropriateness of the half-WACC adjustment, the ACCC considered that, in general, where capital expenditure is incurred evenly throughout the year, the mid-year assumption underlying the half-WACC adjustment is likely to provide a good approximation of reality, and is therefore appropriate.¹⁴⁹

However, since the annual total return on capital encompasses the allowed return on the opening value of the RAB, the returns accruing to the cash flow timing assumptions in the FLSM *and* the half WACC adjustment to capital expenditure, concerns about over-compensation may more readily arise.

In its April 2013 draft decision on the NBN Co Special Access Undertaking (SAU), the ACCC formed a view that the half-WACC adjustment for capital expenditure should be balanced against cash flow timing returns accruing to NBN Co in its SAU financial model. In other words, the cash flow timing returns accruing to NBN Co should be considered in the assessment of the total return on capital accruing to NBN Co and therefore the addition of a half-WACC adjustment on capital expenditure may result in NBN Co being over-compensated.¹⁵⁰ As a result, the half-WACC adjustment to capital expenditure in the NBN Co SAU was removed.

The appropriateness of the half-WACC adjustment for capital expenditure in the FLSM may be considered in light of the recent ACCC decision on the NBN Co SAU. The NBN Co SAU in its financial model and the FLSM share the same cash flow timing assumptions (with the exception of capital expenditure) and the returns accruing to the cash flow timing assumptions is an outcome of both models.

Therefore, consideration of the appropriateness of the half-WACC adjustment of capital expenditure in the FLSM may be viewed in terms of Telstra's aggregate return on declared fixed line capital (including cash flow timing returns) and the ACCC decision on the half-WACC adjustment of capital expenditure in the NBN Co SAU. If the half-WACC adjustment is considered to result in over-compensation and was removed, the timing of capital expenditure would be assumed to be end-of-year, which is consistent with the end-of-year timing assumption of other cash flows in the FLSM.

8.2 Cost of capital

The ACCC made decisions on Telstra's WACC in the 2011 fixed line services FADs and more recently in the 2013 wholesale FAD.

In the 2011 FADs the ACCC adopted a real vanilla WACC of 5.84 per cent.¹⁵¹ The cost of equity capital in the WACC is based on the Sharpe-Linter Capital Asset Pricing Model (CAPM). The ACCC also included the fixed principle provisions in the 2011 FADs which provide that a

¹⁴⁷ ACCC, *Review of the 1997 telecommunications access pricing principles for fixed line services: Draft report*, September 2010, p. 62.

¹⁴⁸ ACCC, *Review of the 1997 telecommunications access pricing principles for fixed line services: Draft report*, September 2010, p. 62.

¹⁴⁹ ACCC, *Public inquiry to make final access determinations for the declared fixed line services: Discussion paper*, April 2011, p. 72.

¹⁵⁰ ACCC, *ACCC Draft Decision on the Special Access Undertaking lodged by NBN Co on 18 December 2012, 18 April 2013*, pp. 132–133.

¹⁵¹ The vanilla WACC is a post-tax WACC. The cash flows that are applied to the vanilla WACC are post tax cash flows and they include the benefits from imputation as well as the tax shield.

vanilla WACC be used in future FADs.¹⁵² The ACCC applied this for the 2013 wholesale ADSL FAD for which the ACCC determined a real WACC value of 3.76 per cent.¹⁵³

The table below summarises the approach adopted in 2011 and 2013 FADs for estimating Telstra's WACC.

Table 8.1 ACCC's approach for estimating WACC in 2011 and 2013 FADs

WACC and WACC input	2013 Wholesale ADSL FAD	2011 FADs	ACCC value/approach
Real vanilla WACC	3.76 per cent	5.84 per cent	
Nominal vanilla WACC	6.33 per cent	8.54 per cent	
Nominal risk-free rate	3.19 per cent	5.16 per cent	Based on the 10 year Commonwealth Government Securities (CGS) bond yield using an average period of 20 business days.
Expected inflation	2.47 per cent	2.55 per cent	Based on a geometric average of ten years of forecast inflation.
Nominal market risk premium (MRP)	6 per cent	6 per cent	Within the range of long-term historic average MRP estimates. ¹⁵⁴
Equity beta	0.7	0.7	Based on benchmarking information and AER findings on an appropriate range for the equity betas of regulated utilities
Nominal debt risk premium	1.47 per cent	2.06 per cent	Based on the difference in yield between a Telstra bond yield with 10 years to maturity and the 10 year CGS yield, using an averaging period of 20 business days.
Debt gearing	40%	40%	
Debt issuance cost	0.074 per cent	0.081 per cent	Updated using the methodology developed by Allen Consulting Group.
Gamma	0.45	0.45	Taking into account considerations of regulatory certainty and predictability, submissions, a range of empirical and theoretical evidence, and the Australian Competition Tribunal's May 2011 decision.

The ACCC seeks stakeholder views on whether the approach used by the ACCC to estimate the cost of capital for the 2011 and 2013 FADs remains appropriate.

¹⁵² The fixed principles will apply for a ten year period with a nominal termination date of 30 June 2021.

¹⁵³ The ACCC updated three WACC parameters – the risk free rate, debt risk premium and debt issuance costs because these parameters are estimated using specific point in time observations of market data.

¹⁵⁴ The MRP estimate of 6 per cent is based on estimates of historical excess returns on stocks which are clustered around 6 per cent. The estimates of the MRP span a range from 3.6 per cent to 6.4 per cent. The MRP estimates within this range depend on the sampling period and the averaging technique employed. Australian Energy Regulator (2013), *Better Regulation Explanatory Statement Rate of Return Guideline (Appendices)*, December 2013, p. 78-84.

8.3 Taxation allowance

The calculation of tax in the FLSM follows the conventional accounting treatment of tax as it applies the corporate tax rate to profits, where profits are defined as revenue minus costs. The tax assessable profit under the building block approach is calculated as the pre-tax revenue requirement minus the three classes of tax deductible expenses – operating costs, tax depreciation and interest.

In contrast to the rest of the FLSM where calculations are undertaken in real terms, tax payable is calculated in nominal terms because tax liabilities are based on nominal values. Tax is assessed on nominal (not real) profits generated throughout each year and the magnitude of the tax deduction arising from interest expenses depends on the nominal interest rate, not the real interest rate. Tax depreciation and operating costs are also calculated in nominal terms for the purposes of assessing tax payable.

As a result, the tax calculations in the FLSM are performed in nominal terms and then converted into the base year terms and added to the real pre-tax revenue requirement to calculate the real revenue requirement including tax.

8.3.1 Tax depreciation method

Tax depreciation is a tax deductible expense that is used as an input in the calculation of the business's tax liabilities.

In the 2011 FAD, the ACCC confirmed the use of straight line depreciation for the estimation of tax depreciation. Straight-line depreciation involves dividing the initial asset value by the asset's useful life to calculate a constant depreciation expense each year. Using straight line depreciation complies with Australian tax rules and accepted conventions that favour the simplicity and transparency of the straight line method for tax purposes.

Tax depreciation can differ from regulatory depreciation because the Australian tax rules allow companies to write off the value of capital expenditures (through accelerated depreciation) faster than regulatory depreciation. A consequence of accelerated depreciation is that the long term effective tax rate is typically significantly lower than the corporate tax rate. Accelerated depreciation may be incorporated into the FLSM by varying the asset life for tax purposes for assets eligible for accelerated depreciation. The FLSM does not currently include any assets subject to accelerated tax depreciation.

In the 2011 FAD the ACCC adopted a revised initial tax value for the assets included in the RAB based on the written-down tax value of these assets in Telstra's tax accounts. This value was lower than the tax asset value previously included in the FLSM because Telstra had taken the option provided by the tax laws of claiming accelerated tax depreciation on its assets. Having taken into account past accelerated tax depreciation, the estimated tax liabilities in the FLSM more accurately approximated Telstra's tax liabilities.

The estimated and actual tax depreciation profiles may differ to a certain degree. However, the ACCC notes that it is impossible to perfectly replicate actual tax depreciation profiles. In the 2011 FAD, the ACCC considered that the tax liabilities estimated in the FLSM are a good proxy for Telstra's actual tax depreciation since the total amount of tax depreciation received over the life of the asset will reflect the full cost of that asset. This is because the BBM approach in the FLSM is based on the net present value (NPV) of a regulated asset being equal to zero over the life of that asset. The NPV = 0 objective is met when an asset can be fully depreciated.

The ACCC's 2011 FAD as applied to the setting of the initial tax asset base is consistent with the AER's approach to setting the initial tax asset value based on the 'actual tax position of assets that constitute the RAB' where possible.¹⁵⁵

The opening tax asset value at 1 July 2011 was \$10.144 billion. The opening tax asset value as at 1 July 2014 is \$10.852 billion. The growth in the opening tax asset base has arisen because net capital expenditure additions over the regulatory period have exceeded tax depreciation.

8.3.2 Other tax liabilities

In the 2011 FAD, the ACCC observed that Telstra may also be liable to pay other taxes, such as the Goods and Services Tax (GST). However, only corporate tax liabilities are included in the tax building block in the FLSM.

In previous arbitral decisions, access seekers and Telstra submitted on the inclusion of the Australian Capital Territory (ACT) Utilities Tax in access prices. Telstra also submitted on other applicable taxes and the GST. However, the ACCC noted that Telstra did not specify which taxes should or would apply to the declared fixed line services apart from the ACT Utilities Tax. After considering submissions, the ACCC's final view was that the FADs should specify that the prices and charges included in the FADs are exclusive of the ACT Utilities Tax and the GST.

The ACCC considered that any issues associated with incorrect pass-through of applicable taxes are not included in the FADs can be resolved through binding rules of conduct (BROC).

8.4 Indexing

Prices for the declared fixed line services were set for the previous FADs using the FLSM. The FLSM is a real model which performs all calculations in 1 July 2009 dollar terms. This means that all expenditure inputs must be converted to 2009 terms before they are entered into the model and real service prices can be calculated. Once real prices are determined, they are converted back to nominal terms to set FAD prices.

In the versions of the FLSM used for the existing FADs,¹⁵⁶ the methodology used to convert expenditure inputs to real terms was different to the methodology used to convert price outputs to nominal terms.

For the 2011 and 2013 FADs, expenditure inputs were deflated to real terms using an average of the ABS producer price index for communication equipment manufacturing (capital expenditure) and the ABS labour price index for information media and telecommunications (operating expenditure), for years where actual data was available — that is, for backward-looking years. For subsequent — that is, forward-looking — years, a forecast of CPI was used, which was calculated as the 10-year geometric average of the RBA's short-term CPI forecasts (for years where available) and the midpoint of the RBA's target inflation band (that is, 2.5 per cent) for remaining years.

On the other hand, price outputs were inflated to nominal terms using the 10-year geometric average of forecast CPI, as described above.

A potential alternative to the indexation approach adopted in previous FADs would be to align the methods used to convert inputs and outputs to real and nominal terms (respectively) and to use the CPI as the measure of inflation for all conversions. This would mean that, where an index other than the CPI is currently used in the FLSM (whether it be forward- or backward-looking), the CPI would be used instead.

¹⁵⁵ Australian Energy Regulator, *Matters relevant to Distribution Determination for ACT and NSW DNSPs for 2009–2014 Preliminary Positions*, November 2007, pp. 51–52.

¹⁵⁶ FLSM version 1.1 was used to estimate prices for the 2011 FADs; FLSM version 1.2 was used to estimate prices for the 2013 wholesale ADSL FAD.

For example, instead of using a backward-looking composite ABS price index to convert inputs to 2009 terms, actual CPI figures would be used. These CPI figures would also be used to convert real (2009 dollar) price outputs to nominal terms. In terms of forward-looking measures of inflation, the method currently used in the FLSM — that is, forecasting CPI based on the RBA's short term forecasts and target band — would be retained.

The ACCC notes, however, that Telstra has provided nominal expenditure forecasts under the BBM RKR which have been converted from real 2013 dollar terms using its own forecasts of CPI. Since Telstra's expenditure forecasts have been derived using particular levels of expected inflation over the RKR forecast period, using different levels of expected inflation to convert the nominal forecasts to 2013 terms — that is, the ACCC's forecast of CPI — would alter the underlying dollar value of the forecasts. To avoid this outcome, Telstra's CPI forecasts would need to be used to convert the expenditure forecasts to 2013 terms. In order to achieve consistency with the method used to convert real price outputs to nominal terms, the ACCC's forecast of CPI could be used in conjunction with Telstra's CPI forecasts. This would be done using the following steps:

- Telstra's nominal expenditure forecasts would be deflated to 2013 terms using Telstra's CPI forecasts.
- These 2013 dollar forecasts would then be inflated to nominal terms using the ACCC's forecast of CPI.
- Finally, these re-inflated forecasts would then be deflated to 2009 terms using actual CPI for past years and the ACCC's forecast of CPI for subsequent years.

This would ensure that the dollar value of Telstra's expenditure forecasts are not altered, and would also, to the greatest extent possible, achieve consistency with the method used to convert price outputs to nominal terms.

8.5 Accounting for the Telstra-NBN arrangements in the FLSM

As discussed in chapter 7, there are likely to be a number of ways the impacts of the arrangements between Telstra and NBN Co can be quantified for the purpose of setting prices for declared services. Two potential ways these arrangements can be accounted for are to make relevant adjustments based on the impact on underlying assets or to explicitly reflect the payments from NBN Co in the prices for declared services. There are likely to be a number of ways of implementing these approaches, and implementation is likely to differ depending on the nature of the particular transaction between Telstra and NBN Co.

The following sections discuss some potential options for implementing the approaches the ACCC has identified for quantifying the arrangements between Telstra and NBN Co and associated practical issues. The ACCC emphasises that these are only potential options that it has identified and that other potential options may exist.

8.5.1 Leasing of Telstra assets to NBN Co

Under the current Definitive Agreements NBN Co will lease ducts, exchange space and dark fibre from Telstra.

If the leasing arrangements between Telstra and NBN Co are accounted for based on the impact to underlying assets, this could be done through cost allocation factors or an adjustment to the RAB, as described below:

Using cost allocation factors – Cost allocation factors would be adjusted for relevant asset classes to explicitly reflect NBN Co's use of Telstra's infrastructure. Using cost allocation factors in this way would result in a lower proportion of costs being allocated to declared

services. This approach would be consistent with the overall framework of the FLSM, of which a key component is the allocation of costs of assets between multiple activities. The following implementation issues would also need to be considered:

- The approach to cost allocation adopted in the 2011 FADs does not explicitly reflect the use of Telstra's assets by any service other than declared services. Therefore, the current approach to cost allocation would need to be modified to reflect NBN Co's use of Telstra's assets
- Telstra's revised cost allocation framework takes into account the use of its assets by all services. This includes assumptions about third-party use of its exchange buildings and ducts and pipes, which includes use of these assets by NBN Co. However, Telstra's revised cost allocation framework does not appear to reflect NBN Co use of dark fibre.

Adjusting the RAB – the RAB for the relevant asset classes could be reduced to reflect NBN Co's use of Telstra's infrastructure. This would involve attributing a share of the relevant assets to use by NBN Co (which in itself is likely to involve allocation of common costs) and removing it from the RAB.

If the payments from NBN Co are used to account for the leasing arrangements between Telstra and NBN Co, then this could be done through the revenue requirement or the RAB, as described below:

Adjusting the revenue requirement – The forecast annual leasing payments would be deducted from the annual revenue requirement for the asset class that contains the asset being leased to NBN Co. For example, revenue received for the lease of duct infrastructure would be deducted from the annual revenue requirements for the ducts and pipes asset class. Once the 'net' annual revenue requirement (that is, adjusted for the infrastructure payments) for that asset class has been determined, it would be then allocated to declared services using the allocation factors. The allocation factors would effectively allocate a share of the infrastructure payments to the declared services cost base, based on the relative use of fixed line asset by declared services. If it is established that a leasing payment relates to infrastructure that covers more than one asset class, then the payments would first need to be allocated between the relevant asset classes before deducting them from the respective annual revenue requirements.

Adjusting the RAB – Another potential option for using the payments from NBN Co to reflect the leasing arrangements is to deduct the net present value of forecast leasing payments from the RAB for the asset class that contains the asset being leased to NBN Co (this approach was suggested by NERA – see section 7.3 for further discussion). This approach would have a similar effect to the approach described above, in that a declared service's 'share' of the infrastructure payments would feed into the declared services cost base through the cost allocation factors. An additional factor to consider with this approach is the period for which the net present value is estimated. This could be the length of the regulatory period, although a longer period could also be adopted.

8.5.2 Transfer of Telstra assets to NBN Co

Under the current Definitive Agreements NBN Co will purchase lead-in conduits from Telstra as customers are migrated to the NBN.

The ACCC notes that it is common regulatory practice for asset disposals, where a regulated entity disposes of assets to a third party in exchange for payment, to be removed from the RAB. Treating asset disposals in this way ensures that the assets that are no longer used in the provision of a regulated service are not reflected in the price for that service. The ACCC considers that the arrangements between Telstra and NBN Co for the transfer of assets appears to resemble a standard asset disposal, and considers this a potential option for accounting for these arrangements (noting that other potential approaches may exist).

If the transfer of assets from Telstra to NBN Co is treated as an asset disposal and removed from the RAB, the amount deducted from the RAB for each asset transferred to NBN Co could be either equal to the value of the asset transferred to NBN Co as reflected in the RAB or equal to the payments from NBN Co for the transfer of that asset.

8.5.3 Migration of customers to the NBN

Under the current Definitive Agreements, customers will progressively migrate to the NBN. NBN Co will pay Telstra a once-off migration payment for each customer that is migrated to the NBN and disconnected from the Telstra fixed line network.

The ways in which migration payments can be reflected, and the associated implementation issues, are likely to differ significantly depending on whether adjustments are based on the impact on underlying assets or whether the payments from NBN Co are explicitly reflected in prices for declared services.

If migration payments are to be accounted for based on the impact on underlying assets, one potential option is to identify assets that will be decommissioned as a result of migration to the NBN and removing them from the RAB. There are likely to be some practical issues with this approach due to difficulties in identifying the specific assets that will be decommissioned, when they will be decommissioned and what value those assets have in the RAB. If this information is unavailable, a potential approach to estimating the value of assets to be decommissioned is to identify those assets within the RAB that will be decommissioned by the end of the NBN rollout and to 'scale-down' those assets on an annual basis in accordance with the scheduled rollout of the NBN. A disadvantage of a scale-down approach is that some assets, particularly in the core network, are unlikely to be decommissioned at the same rate as the rollout, which could result in assets being removed from the RAB before they are decommissioned. As discussed in section 7.2, making adjustments of this kind assumes the view that migration payments represent payments for the decommissioning of assets. As noted above (section 7.2), if migration payments are viewed as purely goodwill payments then it might be assessed that no adjustment to the RAB should be made.

If migration payments from NBN Co are to be explicitly reflected in prices for declared services, one potential option is to deduct them from the RAB. Under this approach, it would first be necessary to allocate the migration payments between asset classes (this is because the RAB is disaggregated into separate asset classes in the FLSM). Deducting the migration payments from the RAB in this way would mean that a share of migration payments would be allocated to declared services through the cost allocation factors. If this approach is adopted to reflect the migration of customers to the NBN, it is important to ensure that any share of the payments that do not relate to the fixed line network (such as payments from the migration of HFC customers) is appropriately excluded from any adjustments made.

8.6 Issues for consideration

The ACCC seeks views on:

61. Please comment on the identified potential over-compensation that arises from the end-of-year timing assumption for the receipt of capital-related revenue.
62. Do you consider that the half-WACC adjustment to capital expenditure is appropriate in the context of the declared fixed line services? In particular, do you consider it appropriate to recognise capital expenditure as a mid-year cash flow while recognising operating expenditure and revenue as end-of-year cash flows? Please provide reasons.
63. Whether the approach to estimating the cost of capital in the 2011 and 2013 FADs in the FLSM is still appropriate.

64. Whether the approach to calculating tax liabilities in the 2011 and 2013 FADs in the FLSM is still appropriate.
65. Please comment on the described potential approach to indexation in the FLSM. In particular, please comment on the alignment of the methodologies used to convert expenditure inputs and price outputs, and the use of the CPI for all conversions.
66. Are the approaches described in section 8.5 appropriate and practical ways to account for the arrangements between Telstra and NBN Co in the FLSM? What other practical or implementation issues are likely to arise in accounting for these arrangements?

9 Term of the final access determinations

Key Points

- The ACCC set a three year term for the fixed line services FADs in 2011 and a one year term for the wholesale ADSL FAD in 2013 to align the timing for all declared fixed line services.
- For the next regulatory term the ACCC will consider the advantages and disadvantages of different regulatory terms. The availability of reliable expenditure and demand forecasts will be a consideration in addition to factors including price certainty, incentives to minimise costs and increase productivity and administrative burden.

9.1 2011 fixed line final access determinations

In determining the 2011 fixed line FADs, the ACCC made wholesale access prices for a three year regulatory period. At the time, the ACCC's preference was to set prices for a five-year regulatory period, however industry submissions were in support of a shorter period. The ACCC recognised the concerns of industry and, in particular, the difficulties in developing sufficiently reliable forecasts for longer regulatory periods. Further, at the time of the last fixed line FADs, there was significant uncertainty surrounding the structure, design and rollout of the National Broadband Network (NBN).

9.2 2013 Wholesale ADSL final access determination

Following a period of consultation, the ACCC made an FAD for wholesale ADSL in May 2013. In determining an expiry date for the wholesale ADSL FAD, the ACCC decided to align the expiry of the FAD with the expiry of the fixed line services FADs.¹⁵⁷ The ACCC considered this to be appropriate as the wholesale ADSL price terms were determined using the FSLM. The ACCC took the view that aligning the two FADs would allow the wholesale ADSL prices to be reviewed and updated at the same time as the prices for the other declared fixed line services. This alignment will ensure consistency with the pricing approach used in setting prices for the other declared fixed line services, which use the same network assets as wholesale ADSL. This will in turn reduce the risk of the access provider over or under-recovering its costs of supplying the declared fixed line services.

9.3 Term for next final access determinations

An FAD must have an expiry date which should align with the expiry of the declaration for that service unless there are circumstances that warrant a different expiry date.¹⁵⁸ The fixed line services declaration expires on 31 July 2019 and the wholesale ADSL declaration expires on 13 February 2017.

The ACCC considers that a regulatory period should balance the need for providing longer term pricing stability and certainty to support industry investment planning with the flexibility to review prices and price structures when there are changes in industry circumstances. The

¹⁵⁷ Note – on 16 April 2014, the ACCC extended the expiry of the existing FADs for declared fixed line services and the wholesale ADSL service until the next FADs are made. The ACCC extended these FADs as it is not in a position to make new fixed line services FAD and wholesale ADSL service FADs prior to their expiration.

¹⁵⁸ See section 152BCF of the CCA.

ACCC notes that there are trade-offs involved in setting shorter or longer regulatory periods. In particular, with a shorter regulatory period:

- There is greater certainty around expenditure and demand forecasts (used as an input to the FLSM)
- There is greater regulatory and administrative burden in undertaking more frequent price reviews.

In contrast, with a longer regulatory period:

- Telstra and the access seekers will have greater pricing certainty
- There are stronger incentives to minimise costs and increase productivity
- There is an increased potential that costs will not be recovered (which would be detrimental to dynamic efficiency).

The ACCC seeks views on an appropriate regulatory term for the next fixed line FADs. In determining a regulatory period, the ACCC notes that a number of considerations should be taken into account. Specifically, as noted earlier (section 2.1.3), there are currently a number of uncertainties regarding the NBN which have implications for making the price terms for the next FADs. In particular, reliable demand and expenditure forecasts cannot be developed until the details—including timing—of the NBN rollout are known.

Separate to the uncertainties arising specifically in relation to the NBN rollout, Telstra has noted the difficulty of developing reliable forecasts beyond a two to three year horizon. This also has implications for making price terms for the next FADs.

The ACCC seeks views on:

67. What considerations are relevant to determining the length of the next regulatory period?
68. Should the ACCC maintain a regulatory term of 3 years or should an alternative regulatory term be adopted? What factors should the ACCC consider when deciding on the regulatory term?
69. Whether the reliability of out-year forecasts (i.e. those for 2016-17 to 2018-19) is a relevant factor to be considered in setting the term of the next regulatory period.

A Appendix A – consolidated list for consultation

The ACCC seeks views on the following issues and questions:

2 *BBM RKR Forecasts*

2.1 *BBM RKR information provision*

1. What are possible approaches for addressing the consequences of uncertainty regarding the NBN for estimating the BBM RKR forecasts as well as setting FAD prices?

2.2 *Capital expenditure forecasts*

2. Whether Telstra's forecasting methodology for capital expenditure is reasonable having regard to the to the LTIE,¹⁵⁹ particularly in respect of the objective of encouraging the economically efficient use of and investment in infrastructure used to provide the services, and the matters¹⁶⁰ that the ACCC must take into account when making the FADs. Are there any alternative approaches that are likely to give a measurably better outcome having regard to the LTIE and the other matters¹⁶¹ that the ACCC must take into account? Is it appropriate for Telstra to include 'capitalised interest' in its forecast capital expenditure, on the basis of recover the financing cost incurred during the construction period of capital expenditure?
3. How should Telstra's BBM RKR capital expenditure forecasts for the period of 2014–15 to 2018–19 be assessed against prudence and efficiency criteria? What factors should the ACCC consider when assessing the prudence and efficiency of Telstra's forecast capital expenditure?
4. What is the likely impact of the NBN rollout on Telstra's capital expenditure on its CAN and Core networks and how should this be taken into account in forecasting capital expenditure?
5. To what extent will the impact of increasing demand for broadband data traffic and mobile services offset the impact of falling demand for voice and broadband services on capital expenditure needs?
6. Does the information provided on the top 10 IMC programs in the BBM RKR response provide adequate quantitative support for the capital expenditure forecasts?

2.3 *Operating expenditure forecasts*

7. Whether Telstra's forecasting methodology for operating expenditure is reasonable having regard to the to the LTIE¹⁶², particularly in respect of the objective of encouraging the economically efficient use of and investment in infrastructure used to provide the services, and the matters¹⁶³ that the ACCC must take into account when making the FADs. Are there any alternative approaches that are likely to give a measurably better outcome having regard to the LTIE¹⁶⁴ and the other matters that the ACCC must take into account when making the FADs?

¹⁵⁹ 152BCA(1)(a) of the CCA.

¹⁶⁰ 152BCA(1)(b)-(g) of the CCA.

¹⁶² 152BCA(1)(a) of the CCA.

¹⁶³ 152BCA(1)(b)-(g) of the CCA.

¹⁶⁴ 152BCA(1)(a) of the CCA.

8. What factors should be considered when assessing the prudence and efficiency of Telstra's operating expenditure forecasts?
9. Whether Telstra's 2013–14 forecasts represent a reasonable baseline for the BBM RKR operating expenditure forecasts.
10. Whether Telstra's BBM RKR operating expenditure forecasts for the period of 2014–15 to 2018–19 reflect prudent and efficient operating expenditure required for Telstra's fixed line network.
11. Whether Telstra's assumptions underpinning the trends applied to the base year operating expenditure forecast are reasonable. What scope exists for further efficiency gains given Telstra's views on productivity and trends for network faults? In light of the Telstra's previous statements that its fixed line operating expenditure is a variable cost, should forecast operating expenditure be responsive to forecast changes in demand?
12. What are the likely impacts of the NBN rollout on Telstra's operating expenditure on its CAN and Core networks and how should this be taken into account in forecasting operating expenditure?

2.4 *Demand forecasts*

13. How should the uncertainty surrounding the scheduled rollout of the NBN and its impact on the forecasts be addressed?
14. Is there sufficient transparency in the information that has been provided by Telstra regarding the forecasting methodology it has adopted? If not, what further information is required?
15. What other views can you provide regarding the demand for declared and non-declared services provided on the PSTN?
16. What other factors should be considered when assessing the reasonableness of Telstra's demand forecasts?

3 *Cost allocation*

3.2 *Telstra's alternative approach to cost allocation*

17. Whether the partially allocated approach or Telstra's fully allocated cost approach is likely to best reflect the cost of declared services for the next regulatory period.
18. Are there any issues arising from the partially allocated cost approach?
19. What are the potential issues with Telstra's proposed fully allocated cost approach?
20. Are there alternative cost allocation approaches to the partially allocated approach and Telstra's fully allocated cost approach that may more closely reflect declared services consumption of fixed line resources?
21. What further information would you require from Telstra to consider whether the fully allocated cost approach proposal results in an approach that is simpler, more transparent and more cost reflective?
22. What are the impacts of higher regulated prices that may arise when moving from a partially allocated cost approach to Telstra's fully allocated cost approach?

4 Declining demand

4.3 Issues for consultation

23. How should the impacts of declining demand be shared between Telstra and access seekers?
24. Whether the ACCC's current approach to cost allocation, in its current form, appropriately shares the impacts of declining demand between Telstra and access seekers. Please explain your reasons for this view.
25. Does Telstra's revised cost allocation framework, appropriately share the impacts of declining demand between Telstra and access seekers? Please explain your reasons for this view.
26. Should different sources of declining demand be accounted for in different ways? Please explain your reasons for this view.
27. Should Telstra bear the impacts of some sources of declining demand but not others? Please explain your reasons for this view.
28. Are there some sources of declining demand that are more appropriately borne by access seekers?
29. What are some potential options for separately identifying and isolating different sources of declining demand?

5 Determining prices

5.3 Discussion and issues for consultation

30. The advantages and disadvantages of moving to a more flexible approach to setting prices for individual services compared with the current approach.
31. If a more flexible approach to setting individual prices is adopted, what principles should be followed to ensure prices are not set in an arbitrary way?
32. If a more flexible approach to setting individual prices is adopted, what are some principles that could be adopted to guide the setting of prices?
33. Are price stability and stable price relativities objectives that should be pursued? Please give reasons for this view.
34. Are there any issues of inconsistency between Telstra's proposed fully allocated cost allocation framework and the alternative approach to individual price setting?
35. How could estimates of avoidable cost and stand alone cost be determined for Telstra's declared services?

6 Pricing Structures

6.1 ULLS

36. Whether the current ULLS price structure (an averaged Bands 1-3 price and a separate Band 4 price) should be maintained for the next regulatory period. If you consider that a different price structure should be adopted for the FAD, please provide details of your proposed alternative price structure. Please give reasons for your answer, including by reference to the LTIE.

37. Should the current approach for estimating geographically differentiated costs of supplying the ULLS be maintained? Please give reasons, including by reference to the LTIE.
38. If you consider that a different method of estimating the geographically differentiated costs of supplying the ULLS should be used, please provide details of your proposed approach and an explanation of why it would be more appropriate, including by reference to the LTIE.
39. Are the geographical cost relativities for Bands 1 to 4 likely to have changed since the 2011 FAD inquiry? If yes, please provide evidence to support your answer and propose a method for the ACCC to obtain more up-to-date information on the relative costs of supplying the ULLS. If no, please give reasons for your answer.

6.2 *FTAS/FOAS Pricing*

40. Whether the ACCC should maintain the current national average price structure or adopt a different price structure for FOAS and FTAS. If you consider a different price structure should be adopted, you should give details of your proposed structure. Please give reasons for your answer, including by reference to the LTIE.
41. Do you consider that there are significant geographic cost differentials in supplying FOAS and FTAS? Please give evidence to support your answer.
42. What information is available on any significant geographic cost differences in supplying FOAS and FTAS? Please comment on the reliability and any limitations of this data.
43. What information is available on the fixed and variable costs of supplying FOAS and FTAS? Please comment on the reliability and any limitations of this data.
44. Have you negotiated disaggregated FOAS or FTAS prices with any other parties? If so, please provide details of the other party and the negotiated charges. If negotiations have been unsuccessful, please give details about the negotiations and your view of the reasons for the failure to agree.
45. Are there other issues, such as non-dominant network or the rollout of the NBN, which the ACCC should take into account in setting regulated terms and conditions for FOAS and FTAS? Please give reasons for your answer, including by reference to the LTIE.

6.3.2.1 *Wholesale ADSL – Port and AGVC/VLAN charges*

46. Whether the ACCC should maintain a two-part pricing structure for the wholesale ADSL service. Please describe how a two-part pricing structure should be implemented (for example, using port and AGVC charges) and give reasons for your answer, including by reference to the LTIE.
47. If a two-part pricing structure is retained, how should the ACCC determine the appropriate proportion of costs to be recovered from the fixed and usage charges? What factors should the ACCC take into account and what information is available to assist the ACCC in determining this proportion? Please give reasons and provide evidence where available.
48. Should the ACCC maintain the approach of setting an AGVC charge on a per Mbps basis? Does the previous methodology remain appropriate? Should AGVC charges vary over the FAD to reflect changes in forecast traffic? Please give reasons for your answer and provide details if you propose an alternative approach.

6.3.2.2 Wholesale ADSL - Geographic pricing

49. Whether the ACCC should continue to set geographically differentiated port charges for the wholesale ADSL service? If so, how should the prices be determined? Please give reasons, including by reference to the LTIE, and any evidence that is available to support your view.
50. What information is available on cost differences in supplying ADSL services in different areas? Are there any limitations on this data?
51. Does the current zone structure represent a reasonable allocation of ESAs into high and low cost areas for the purpose of setting geographically-differentiated prices for the wholesale ADSL service? Please give reasons for your answer and provide details of any alternative zoning approach that you consider would be preferable.
52. Are the cost relativities used in the 2013 FAD still an appropriate basis for determining geographically differentiated prices? Please give reasons and any supporting evidence.
53. Are there alternative geographic price structure options that the ACCC should consider? Please give details of any proposed alternatives and your reasons for proposing them.

7 Impacts of the National Broadband Network

7.4 Issues for consultation

54. The implications of the NBN rollout for the pricing of declared fixed line services.
55. The implications for efficient use of and efficient investment in infrastructure arising from the various options for the impacts of the NBN.
56. The implications for competition arising from the various options for accounting for the impacts of the NBN.
57. What are the implications of accounting for the arrangements between Telstra and NBN Co based on the use of the underlying assets? What are the implications of accounting for the arrangements based on the value of payments from NBN Co?
58. What other options are there for quantifying the impact of the arrangements between Telstra and NBN Co?
59. How should the migration payments from NBN Co to Telstra be viewed for the purposes of the next FADs?
60. Can the payments from NBN Co be conceptualised as either non-regulated revenue or regulated revenue?

8 Other pricing issues

8.6 Issues for consideration

61. Please comment on the identified potential over-compensation that arises from the end-of-year timing assumption for the receipt of capital-related revenue.
62. Do you consider that the half-WACC adjustment to capital expenditure is appropriate in the context of the declared fixed line services? In particular, do you consider it appropriate to recognise capital expenditure as a mid-year cash flow while recognising

operating expenditure and revenue as end-of-year cash flows? Please provide reasons.

63. Whether the approach to estimating the cost of capital in the 2011 and 2013 FADs in the FLSM is still appropriate.
64. Whether the approach to calculating tax liabilities in the 2011 and 2013 FADs in the FLSM is still appropriate.
65. Please comment on the described potential approach to indexation in the FLSM. In particular, please comment on the alignment of the methodologies used to convert expenditure inputs and price outputs, and the use of the CPI for all conversions.
66. Are the approaches described in section 8.5 appropriate and practical ways to account for the arrangements between Telstra and NBN Co in the FLSM? What other practical or implementation issues are likely to arise in accounting for these arrangements?

9 *Term of the final access determinations*

9.3 *Term for next final access determination*

67. What considerations are relevant to determining the length of the next regulatory period?
68. Should the ACCC maintain a regulatory term of 3 years or should an alternative regulatory term be adopted? What factors should the ACCC consider when deciding on the regulatory term?
69. Whether the reliability of out-year forecasts (i.e. those for 2016-17 to 2018-19) is a relevant factor to be considered in setting the term of the next regulatory period.

B Appendix B – links to related documents and materials

Additional information on cost allocation:

Telstra's proposed cost allocation framework for the ACCC fixed line services model (including model guide and supporting reports prepared by KPMG:

Joint letter from the Minister for Communications and the Minister for Finance (joint ministerial letter):

Consultant reports prepared on behalf of access seekers on NBN Co payments to Telstra:

NERA report on behalf of Optus:

<http://www.accc.gov.au/system/files/NERA%20report%20on%20NBN%20payments%2005%20March%202014%20-%20Final.pdf>

Frontier Economics report on behalf of TPG and iiNet:

<http://www.accc.gov.au/system/files/Frontier%20Economics%20report%20on%20behalf%20of%20TPG%20and%20iiNet%20%E2%80%93%20Payments%20between%20NBN%20Co%20and%20Telstra%20and%20prices%20for%20the%20declared%20fixed%20line%20services.pdf>

BBM RKR information collection and disclosure notice (including Telstra's public extracts of their response under the BBM RKR):

<http://www.accc.gov.au/regulated-infrastructure/communications/fixed-line-services/fixed-line-services-fad-inquiry-2013/bbm-rkr-information-collection-disclosure-notice>

Fixed line services model:

<http://www.accc.gov.au/system/files/Final%20-%20Fixed%20Line%20Services%20Model%20version%201.2%20-%20public%20version.xls>

Fixed line services model user manual:

<http://www.accc.gov.au/system/files/Final%20-%20Fixed%20Line%20Services%20Model%20version%201.2%20-%20user%20manual.pdf>

Fixed line services declaration inquiry 2013:

<http://www.accc.gov.au/regulated-infrastructure/communications/fixed-line-services/fixed-line-services-declaration-inquiry-2013>

Fixed line services FAD inquiry 2013:

<http://www.accc.gov.au/regulated-infrastructure/communications/fixed-line-services/fixed-line-services-fad-inquiry-2013>

Fixed line services - FAD variation inquiry 2014:

<http://www.accc.gov.au/regulated-infrastructure/communications/fixed-line-services/fixed-line-services-fad-variation-inquiry-2014>

2011 fixed line services FADs decision:

<http://www.accc.gov.au/regulated-infrastructure/communications/fixed-line-services/fixed-line-services-final-access-determination-fad-2011>

2013 wholesale ADSL FAD decision:

<http://www.accc.gov.au/regulated-infrastructure/communications/fixed-line-services/wholesale-adsl-final-access-determination-fad-2013>

C Appendix C – Legislative framework for final access determinations

This section sets out the relevant legislative framework in relation to FADs and the approach the ACCC will take in applying the legislative provisions.

Content of an FAD

Section 152BC of the CCA specifies what an FAD may contain. It includes, among other things, terms and conditions on which a carrier or carriage service provider (CSP) is to comply with the standard access obligations provided for in the CCA and terms and conditions of access to a declared service. An FAD may make different provisions with respect to different access providers or access seekers.¹⁶⁵

Fixed principles provisions

An FAD may contain a fixed principles provision, which allows a provision in an FAD to have an expiry date after the expiry date of the FAD.¹⁶⁶ Such a provision would allow the ACCC to 'lock-in' a term so that it would be consistent across multiple FADs.

Varying an FAD

Section 152BCN allows the ACCC to vary or revoke an FAD, provided that certain procedures are followed.

A fixed principles provision cannot be varied or removed unless the FAD sets out the circumstances in which the provision can be varied or removed, and those circumstances are present.¹⁶⁷

Commencement and expiry provisions

Section 152BCF of the CCA sets out the commencement and expiry rules for FADs. An FAD must have an expiry date, which should align with the expiry of the declaration for that service unless there are circumstances that warrant a different expiry date.¹⁶⁸ An FAD may be 'backdated' such that it comes into force on a date prior to the making of the determination.¹⁶⁹ There are, however, limitations on the extent of backdating that is permitted.¹⁷⁰

Criteria to consider when making an FAD

The ACCC must have regard to the criteria specified in subsection 152BCA(1) of the CCA when making an FAD. These criteria are:

- a) whether the determination will promote the LTIE of carriage services or services supplied by means of carriage services

¹⁶⁵ Subsection 152BC(5) of the CCA.

¹⁶⁶ Section 152BCD of the CCA.

¹⁶⁷ Subsection 152BCN(4) of the CCA.

¹⁶⁸ Subsection 152BCF(6) of the CCA.

¹⁶⁹ Subsection 152BCF(2) of the CCA.

¹⁷⁰ Subsections 152BCF(2A), 152BCF(3), 152BCF(3A), 152BCF(4) and 152BCF(4A) of the CCA.

- b) the legitimate business interests of a carrier or 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(1) criteria mirror the repealed subsection 152CR(1) criteria that the ACCC was required to take into account in making a final determination (FD) in an access dispute. The ACCC intends to interpret the subsection 152BCA(1) criteria in a similar manner to that used in access disputes.

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's initial views on how the legislative criteria in section 152BCA should be interpreted for the FAD process are set out below.

Paragraph 152BCA(1)(a) – long-term interests of end-users

The first criterion for the ACCC to consider when making 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'.

The ACCC has published a guideline explaining what it understands by the phrase 'long term interests of end-users' in the context of its declaration responsibilities.¹⁷¹ This approach to the LTIE was also used by the ACCC in making determinations in access disputes. The ACCC considers that the same interpretation is appropriate for making FADs for the declared fixed line services.

In the ACCC's view, particular terms and conditions 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.¹⁷²

¹⁷¹ ACCC, *Telecommunications services – declaration provisions: a guide to the declaration provisions of Part XIC of the Trade Practices Act*, July 1999, in particular pp. 31-38.

¹⁷² ACCC, *Telecommunications services – declaration provisions: a guide to the declaration provision of Part XIC of the Trade Practices Act*, July 1999, p. 33.

The ACCC also notes that the Australian Competition Tribunal (Tribunal) has offered guidance in its interpretation of the phrase 'long-term interests of end-users' (in the context of access to subscription television services):

Having regard to the legislation, as well as the guidance provided by the Explanatory Memorandum, it is necessary to take the following matters into account when applying the touchstone – the long-term interests of end-users:

*End-users: "end-users" include actual and potential [users of the service]...

*Interests: the interests of the end-users lie in obtaining lower prices (than would otherwise be the case), increased quality of service and increased diversity and scope in product offerings... [T]his would include access to innovations ... in a quicker timeframe than would otherwise be the case...

*Long-term: the long-term will be the period over which the full effects of the...decision will be felt. This means some years, being sufficient time for all players (being existing and potential competitors at the various functional stages of the ... industry) to adjust to the outcome, make investment decisions and implement growth – as well as entry and/or exit – strategies.¹⁷³

To consider the likely impact of particular terms and conditions on the LTIE, the CCA requires the ACCC to have regard to whether 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.¹⁷⁴

Promoting competition

In assessing whether particular terms and conditions will promote competition, the ACCC will analyse the relevant markets in which the declared services are supplied (retail and wholesale) and consider whether the terms set in those markets remove obstacles to end-users gaining access to telephony and broadband services.¹⁷⁵

Obstacles to accessing these services include the price, quality and availability of the services and the ability of competing providers to provide telephony and broadband services.

The ACCC is not required to precisely define the scope of the relevant markets in which the declared services are supplied. The ACCC considers that it is sufficient to broadly identify the scope of the relevant markets likely to be affected by the ACCC's regulatory decision.

Any-to-any connectivity

The CCA gives guidance on how the objective of any-to-any connectivity is achieved. It is achieved only if each end-user who is supplied with a carriage service that involves communication between end-users is able to communicate, by means of that service, with each

¹⁷³ Seven Network Limited (No 4) [2004] ACompT 11 at [120].

¹⁷⁴ Subsection 152AB(2) of the CCA.

¹⁷⁵ Subsection 152AB(4) of the CCA. This approach is consistent with the approach adopted by the Tribunal in Telstra Corporations Limited (No 3) [2007] A CompT 3 at [92]; Telstra Corporation Limited [2006] A CompT at [97], [149].

other end-user who is supplied with the same service or a similar service. This must be the case whether or not the end-users are connected to the same telecommunications network.¹⁷⁶

The ACCC considers that this criterion is relevant to ensuring that the terms and conditions contained in FADs do not create obstacles for the achievement of any-to-any connectivity.

Efficient use of and investment in infrastructure

In determining the extent to which terms and conditions are likely to encourage the economically efficient use of and investment in infrastructure, the ACCC must have regard to:

- whether it is, or is likely to become, technically feasible for the services to be supplied and charged for, having regard to:
 - the technology that is in use, available or likely to become available
 - whether the costs involved in supplying and charging for, the services are reasonable or likely to become reasonable, and
 - the effects or likely effects that supplying and charging for the services would have on the operation or performance of telecommunications networks
- the legitimate commercial interests of the supplier or suppliers of the services, including the ability of the supplier or suppliers to exploit economies of scale and scope
- incentives for investment in the infrastructure by which services are supplied; and any other infrastructure (for example, the NBN) by which services are, or are likely to become, capable of being supplied, and for the purposes of determining the incentives for investment, regard must be had to the risks involved in making the investment.¹⁷⁷

The objective of encouraging the 'economically efficient use of, and economically efficient investment in ... infrastructure' requires an understanding of the concept of economic efficiency. Economic efficiency consists of three components:

- productive efficiency – this is achieved where individual firms produce the goods and services that they offer at least cost
- allocative efficiency – this is achieved where the prices of resources reflect their underlying costs so that resources are then allocated to their highest valued uses (i.e. those that provide the greatest benefit relative to costs)
- dynamic efficiency – this reflects the need for industries to make timely changes to technology and products in response to changes in consumer tastes and in productive opportunities.

On the issue of efficient investment, the Australian Competition Tribunal has stated that:

...An access charge should be one that just allows an access provider to recover the costs of efficient investment in the infrastructure necessary to provide the declared service.¹⁷⁸

...efficient investment by both access providers and access seekers would be expected to be encouraged in circumstances where access charges were set to ensure recovery

¹⁷⁶ Section 152AB(8) of the CCA.

¹⁷⁷ Sections 152AB(6) and (7A) of the CCA.

¹⁷⁸ *Telstra Corporation Ltd (No. 3)* [2007] ACompT 3 at [159].

of the efficient costs of investment (inclusive of a normal return on investment) by the access provider in the infrastructure necessary to provide the declared service.¹⁷⁹

...access charges can create an incentive for access providers to seek productive and dynamic efficiencies if access charges are set having regard to the efficient costs of providing access to a declared service.¹⁸⁰

Legitimate business interests (s. 152BCA(1)(b))

The ACCC must take into account 'the legitimate business interests' of the carrier or CSP when making an FAD.

In the context of access disputes, the ACCC considered that it was in the access provider's legitimate business interests to earn a normal commercial return on its investment.¹⁸¹ The ACCC is of the view that the concept of 'legitimate business interests' in relation to FADs should be interpreted in a similar manner, consistent with the phrase 'legitimate commercial interests' used elsewhere in Part XIC of the CCA.

For completeness, the ACCC notes that it would be in the 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.¹⁸²

The Australian Competition Tribunal has taken a similar view of the expression 'legitimate business interests'.¹⁸³

Persons who have a right to use (s. 152BCA(1)(c))

The ACCC must have regard to 'the interests of all persons who have the right to use the service' when making an FAD.

The ACCC considers that this criterion requires it to have regard to the interests of access seekers. The Australian Competition Tribunal has also taken this approach.¹⁸⁴ 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.¹⁸⁵

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 ACCC considers that this class of persons has an interest in being able to compete for the custom of end-users on the basis of their relative merits. This could be prevented from occurring if terms and conditions of access favour one or more service providers over others, thereby distorting the competitive process.¹⁸⁶

¹⁷⁹ Ibid. at [164].

¹⁸⁰ Ibid.

¹⁸¹ ACCC, *Resolution of telecommunications access disputes – a guide*, March 2004 (revised) (Access Dispute Guidelines), p. 56.

¹⁸² ACCC, *Access pricing principles—telecommunications*, July 1997 (1997 Access Pricing Principles), p. 9.

¹⁸³ *Telstra Corporation Limited* [2006] ACompT 4 at [89].

¹⁸⁴ *Telstra Corporation Limited* [2006] ACompT 4 at [91].

¹⁸⁵ Ibid.

¹⁸⁶ Ibid.

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

Direct costs of providing access (s. 152BCA(1)(d))

The ACCC must have regard to 'the direct costs of providing access to the declared service' when making an FAD.

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 includes the incremental costs of providing access.

The ACCC interprets this matter, 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 Australian Competition Tribunal's approach.¹⁸⁷ 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.¹⁸⁸

The ACCC also notes that the Australian Competition Tribunal has considered the direct costs criterion 'is concerned with ensuring that the costs of providing the service are recovered.'¹⁸⁹ The Australian Competition Tribunal has also noted that the direct costs could conceivably be allocated (and hence recovered) in a number of ways and that adopting any of those approaches would be consistent with this criterion.¹⁹⁰

Extensions or enhancements of capability (s. 152BCA(1)(e))

The ACCC must consider 'the value to a party of extensions, or enhancements of capability, whose cost is borne by someone else' when making an FAD.

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.¹⁹¹

Safe and reliable operation (s. 152BCA(1)(f))

The ACCC must consider 'the operational and technical requirements necessary for the safe and reliable operation of a carriage service, a telecommunications network or a facility' when making an FAD.

The ACCC considers that this matter involves consideration of whether terms of access compromise the safety or reliability of carriage services and associated networks or facilities,

¹⁸⁷ Application by Optus Mobile Pty Limited and Optus Networks Pty Limited [2006] ACompT 8 at [137].

¹⁸⁸ 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.

¹⁸⁹ *Telstra Corporation Limited* [2006] ACompT 4 at [92].

¹⁹⁰ *Telstra Corporation Limited* [2006] ACompT 4 at [139].

¹⁹¹ 1997 Access Pricing Principles, p. 11.

and that this has direct relevance when specifying technical requirements or standards to be followed.

The ACCC has previously stated in the context of model non-price terms and conditions, it is of the view that:

...this consideration supports the view that model terms and conditions should reflect the safe and reliable operation of a carriage service, telecommunications network or facility. For instance, the model non-price terms and conditions should not require work practices that would be likely to compromise safety or reliability.¹⁹²

Economically efficient operation (s.152BCA(1)(g))

The ACCC must consider 'the economically efficient operation of a carriage service, a telecommunications network facility or a facility' when making an FAD.

The ACCC has that the phrase 'economically efficient operation' embodies the concept of economic efficiency as discussed earlier under the LTIE. That is, it calls for a consideration of productive, allocative and dynamic efficiency. The ACCC has also noted – in the context of resolving access disputes - that the ACCC may consider whether particular terms and conditions enable a carriage service, telecommunications network or facility to be operated efficiently.¹⁹³

Consistent with the approach taken by the Australian Competition Tribunal, the ACCC considers that in having regard to this matter, 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.¹⁹⁴

Other eligible services (s. 152BCA(2))

Subsection 152BCA(2) provides that, in making an AD that applies to a carrier or CSP who supplies, or is capable of supplying, the declared services, the ACCC may, if the carrier or provider supplies one or more eligible services,¹⁹⁵ 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 to the Bill that introduced this provision states that this provision is intended to ensure that the ACCC, in making an AD, does not consider the declared service in isolation, but also considers other relevant services.¹⁹⁶ As an example, the Explanatory Memorandum states:

...when specifying the access price for a declared service which is supplied by an access provider over a particular network or facility, the ACCC can take into account

¹⁹² ACCC, *Final determination – Model Non-price Terms and Conditions*, November 2008, p. 8.

¹⁹³ Access Dispute Guidelines, p. 57.

¹⁹⁴ *Telstra Corporation Limited* [2006] ACompT at [94]-[95].

¹⁹⁵ 'Eligible service' has the same meaning as in section 152AL of the CCA.

¹⁹⁶ Explanatory Memorandum, Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Bill 2010, p. 178.

not only the access provider's costs and revenues associated with the declared service, but also the costs and revenues associated with other services supplied over that network or facility.¹⁹⁷

Any other relevant matters (s. 152BCA(2))

The ACCC may take into account any other matters that it thinks are relevant when making an FAD. For the wholesale ADSL FAD, the ACCC considers that the relevant considerations will likely be captured under the range of matters to which the ACCC must have regard.

¹⁹⁷ *ibid.*