



PUBLIC VERSION

DOMESTIC MOBILE ROAMING DECLARATION INQUIRY

**PART B OF THE SUBMISSION BY
VODAFONE HUTCHISON AUSTRALIA**

RESPONSE TO SPECIFIC QUESTIONS FROM ACCC

5 December 2016

Summary

This document contains Part B of Vodafone Hutchison Australia Pty Limited's (ABN 76 096 304 620)(VHA) submission in response to the Discussion Paper issued by the ACCC titled *Domestic mobile roaming declaration inquiry*.

Part B of VHA's submission comprises a response to each of the ACCC's 48 questions.

In many instances, VHA has already provided answers to the ACCC's questions in VHA's main submission set out in Part A. VHA has therefore cross-referenced in answers in Part B to the main submission in Part A. VHA's responses to the ACCC's questions in Part B should therefore be read in conjunction with VHA's main submission in Part A.

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1. Questions on supply of mobile services

(a) Nature and relevance of government funding

Q1. How relevant have government funding programs been in assisting the MNOs in establishing their competitive positions in the mobile services market in regional areas? Please provide reasons for your view.

Q1.1 Relevance of government funding

Government funding has been very significant. Telstra has received disproportionate amounts of direct subsidies for its mobile network from state and federal governments. Telstra has also received substantial indirect subsidies through eg the Universal Service Obligation which subsidises the cost of regional transmission and exchanges, which infrastructure can be used at little incremental cost to deploy mobile network at substantially lower cost than any competitor faces in deploying mobile infrastructure.

A “vicious cycle” is in play. Each time Telstra is awarded exclusive or disproportionate subsidies, its network grows comparatively larger than any other MNO, and its ability to win additional subsidies grows yet again as it is the only MNO with contiguous coverage.

[C-I-C]

Q1.2 Telstra has captured most government funding to date

Telstra has received a disproportionate amount of direct government funding for its mobile network. For example, through Rounds 1 and 2 of the Mobile Blackspots Programme, Telstra has received 75% of the funded base stations:

Mobile Blackspots Sites	Round 1	%	Round 2	%	Total	%
Telstra	429	86%	148	56%	577	75%
Vodafone	70	14%	4	2%	74	10%
Optus		0%	114	43%	114	15%
Total	499	100%	266	100%	765	100%

While the funding has sometimes been offered by government to all MNOs in a ‘contestable process’, the reality is that it is only possible for an MNO to win funding if:

- the MNO has a network footprint that is contiguous with the additional sites for which government funding is provided; and

- the MNO is able to build a business case for investment in sites beyond Telstra's footprint.

Since Telstra's footprint is 1.4 million km² larger than its next nearest rival, and other MNOs rarely have contiguous coverage, Telstra has been the only MNO which is realistically able to win the majority/entirely of the subsidies to date.

[C-I-C]

Government funding has enabled the deployment of mobile sites in areas within and beyond the natural monopoly area of Australia. Over time, such government funding has extended Telstra's control over natural monopoly infrastructure and provided Telstra with an insurmountable coverage advantage. These issues are addressed in detail in Sections 1 and 2 of Part A of this submission.

[C-I-C]. Telstra is capturing that public funding and perpetuating its market power at the expense of the general public.

The declaration of roaming under Part XIC will resolve this concern. The supply of roaming by Telstra will provide the other MNOs with a network footprint that is contiguous with all government subsidised sites. Accordingly, declaration under Part XIC will enable the other MNOs to compete for government subsidies, resulting in a more equitable distribution of government funding. Competition for subsidies will also reduce costs for the Australian taxpayer, delivering wider economic benefits.

International best practice is also relevant. In the report "*Wireless Market Structures and Network Sharing*" as referenced in Part A of this submission, the OECD specifically considered the question whether roaming should be provided by Telstra for that part of the mobile network for which Telstra has historically received government subsidies. The OECD commented (at page 29):

"For its part, Telstra has invested a considerable amount in providing the widest coverage in Australia and views this as a matter than should be left to the market. It strongly opposes any suggestion that is should be made to share existing facilities or that public investment should dictate open access policies. In relation to the first objection, this is a challenging area for regulators as an important consideration in many countries is whether facilities can be economically replicated. A decision in favour of a dominant player may assign consumers in those areas to a monopoly... Nonetheless, most countries have taken the decision that any public investment should be associated with open access requirements rather than benefit a single provider".

Australia's approach to date is therefore not consistent with international best practice and has raised concerns at the OECD level.

Each of these points are addressed in further detail below, including further evidence provided by VHA for the benefit of the ACCC.

Q1.3 Australia is unique in the level of subsidies provided to Telstra

In VHA's experience, Australia is unique in terms of the extent of financial support provided to Telstra as incumbent:

- No other market in which the Vodafone Group operates has a history of such significant government subsidies being given to the incumbent mobile operator. This has resulted in vast differences in network coverage between Telstra and its mobile competitors.
- Over the last ten years, approximately \$2 billion in government and industry subsidies¹ have been provided to Telstra to support its network expansion, effectively creating a \$2 billion barrier to entry that has entrenched Telstra's monopoly position in regional and rural areas.
- With the benefit of such subsidies, Telstra has had an unmatched financial ability to extend its coverage beyond that of any other operators.

A list of the some of the subsidies that have been provided to Telstra is set out below. This list is not intended to be exhaustive:

¹ From 2006 to 2016, Telstra has received approximately \$1.3 billion in government subsidies and approximately \$700 million in industry subsidies.

Direct and indirect subsidies awarded to Telstra (excluding NBN payments)



Program	Year	Value	Description
Networking the Nation (NTN) – Mobile telephone projects only	1997-2003	\$37m	Funding provided to Telstra
NTN Social bonus – mobile telephone projects only	1999-2003	\$3m	Funding provided to Telstra to extend mobile coverage in Western Australia, South Australia and Tasmania
Mobile phone coverage for towns with a population of 500 or more	2001-2006	\$24m	Funding provided to Telstra to improve CDMA mobile phone coverage to 131 towns in regional Australia which have populations of 500 or more. 40 of the towns also received additional GSM base stations to supplement existing coverage.
Wireless West	2001	\$7m	Funding provided to Telstra to improve mobile phone coverage in the south west of Western Australia.
Extended zone untimed local calls	2001	\$150m	Funding provided to Telstra
Mobile phone coverage for towns with a population less than 500	2002-2005	\$20m	Funding provided to Telstra to improve mobile phone coverage to 55 towns in regional Australia which have populations of less than 500.
Mobile phones on regional highways	2002-2004	\$19m	Funding provided to Telstra to improve mobile phone coverage to 62 segments along 34 selected highways.
Higher bandwidth incentive scheme/Broadband Connect stage 1	2004-2006	\$178m	Funding provided to Telstra
Expansion of terrestrial mobile phone coverage	2005-2007	\$16m	Funding provided to Telstra to provide improved CDMA mobile phone coverage to 62 locations.
Victorian fibre network (backhaul)	2005-2008	\$89m	Funding for the rollout of optic fibre to all state owned schools, police stations and government offices across Victoria. Everywhere from the Melbourne CBD to towns with 100 people.
Universal Service Obligation	2006-2016	\$676m	Industry funding for Universal Service Obligation.

Direct and indirect subsidies awarded to Telstra (excluding NBN payments) (cont.)

Program	Year	Value	Description
Arnhem Land Fibre (backhaul)	2007-2008	\$34m	Funding from the Northern Territory Government to connect nine Indigenous communities and the township of Nhulunbuy to the nation's fibre optic backbone.
Tasmania mobile black spot program round one contribution	2015	\$350k	To partially fund the construction of towers as part of the federal government's Mobile Black Spot Program in Tasmania.
Western Australian Government's Regional Mobile Communication Project (RMCP)	2012-2014	\$39m	Funding provided to Telstra for 113 new mobile sites to provide coverage to regional and remote areas of the State. The project increased the geographical coverage of Telstra's mobile network from 430,000 sq km to more than 525,000 sq km, an increase of 22%.
Northern Territory Government	2013	\$3m	Funding for Telstra to install mobile sites at eight locations, with fixed broadband services also made available in six communities.
Universal Service Obligation	2013-2016	\$383m	Government funding for Universal Service Obligation
Federal Government's Mobile Black Spot Program - Round One	2015	\$85m	Funding for Telstra to build 429 sites across Australia nominated as part of the Federal Government's Mobile Black Spot Program.
Western Australian Government's Mobile black Spot Program - Round One	2015	\$32m	To partially fund the construction of towers as part of the Federal Government's Mobile Black Spot Program in Western Australia.
New South Wales Government's Mobile Black Spot Program - Round One	2015	\$23m	To partially fund the construction of towers as part of the Federal Government's Mobile Black Spot Program in New South Wales.
Victorian government's mobile black spot program - round one contribution	2015	\$21m	To partially fund the construction of towers as part of the Federal Government's Mobile Black Spot Program in Victoria.
Queensland government's mobile black spot program contribution	2015	\$10m	To partially fund the construction of towers as part of the Federal Government's Mobile Black Spot Program in Queensland.
Tasmania's Mobile black Spot Program - Round One	2015	\$350k	To partially fund the construction of towers as part of the Federal Government's Mobile Black Spot Program in Tasmania.
Queensland Royalties for Regions (backhaul)	2015-2017	\$16m	Funding to build 600km of fibre optic cable to link regional Queensland communities to the internet.
Western Australia Regional Transmission program	2016	\$45m	Funding to improve mobile phone coverage in remote communities in Western Australia.
Federal Government's Mobile Black spot program - round two state and federal government contributions	2016	\$86m	Capital contribution for Telstra to build 148 sites across Australia nominated as part of the federal government's Mobile Black spot program.

By comparison, VHA has only received government funding for three Australian Government programs:

- In 2004-2005, VHA received \$22.7 million from the Mobile Phones Highway Programs which was paid over 2 years in 8 instalments.
- In 2014-2015, VHA was awarded \$18.2 million in Round 1 of the Mobile Blackspot Programme for 70 new mobile sites, and in 2016 was awarded \$1.6m in Round 2 of the Mobile Blackspots Programme for 4 new mobile sites .

Therefore, while Telstra has received some \$2 billion in subsidies, VHA has only received \$42 million, roughly 2% of the Telstra total amount. This is not an equitable distribution of subsidies.

Q1.4 VHA cannot fairly compete for government funding in the absence of declaration of roaming

As a practical matter, VHA is unable to effectively utilise government funding in the absence of obtaining roaming access to the Telstra monopoly area. Telstra is aware of this. By denying access to roaming, Telstra is therefore denying VHA from effectively competing with Telstra for subsidies.

Specifically, the utility of a mobile network to end-users is provided by mobility, namely cellular handoff of a call between different mobile towers as an end-user travels between the coverage zones associated with each mobile tower. An isolated site that is not connected to the remainder of the mobile network is practically inconvenient to users from a mobile coverage perspective as their calls will drop out as soon as they move beyond the coverage range of that isolated site.² For this reason, mobile operators prefer to invest in mobile towers that are contiguous to existing coverage, or to deploy a block of new sites with adjacent and contiguous coverage in a new area.

Government funding is generally offered to increase the breadth of mobile network coverage. As Telstra has the existing network with the greatest coverage, funding is generally only offered for those sites that offer contiguous coverage with Telstra's network, and not contiguous with VHA's and Optus' mobile networks. As such, Telstra has received the vast bulk of the subsidies. In turn, this has further extended Telstra's monopoly coverage and entrenched its substantial market power.

[C-I-C]

In another example, in the Round 2 of the Mobile Blackspot Programme, VHA has only been approved by the Government for four base stations even though it submitted an application for substantially more sites. In total from Rounds 1 and 2, Telstra was awarded 75% of the subsidised sites.

² The ACCC referred to this as "coverage islands" in its discussion paper.

Roaming is a complete solution to the contiguous site issue as it provides a coverage footprint that will be contiguous with all government funded sites. In such circumstances, the other MNOs will then be able to bid for government subsidies as they will not be investing in sites that are remote from their existing network footprint.

Historically, the Australian Government sought to recognise the unfairness of this situation by imposing a regulatory obligation on Telstra to provide roaming access to those sites in which it had received a government subsidy. Clause 23(4)(a) of the *Carrier Licence Conditions (Telstra Corporation Limited) Declaration 1997* required Telstra to offer mobile roaming for government funded sites in regional towns around Australia with populations of over 500 people. This obligation existed at the time of the last roaming declaration inquiry and expired in 2007.

However, the practical difficulty with this licence condition is that it did not address the contiguous coverage issue. Accordingly, Telstra could offer roaming access to coverage on isolated government funded sites without offering roaming access to coverage on any contiguous sites. The obligation was therefore of little practical utility to other mobile network operators in the absence of any agreement with Telstra to provide roaming coverage to other sites. Again, declaration of roaming would not face this concern as it would provide access to the coverage area between the government funded sites and the MNOs existing footprint.

Q1.5 Declaration of roaming will increase competition for government subsidies

Declaration of roaming will enable competition for government subsidies going forward. Declaration of roaming will also assist to mitigate the substantial unfair competitive advantage that Telstra has gained from government subsidies to date.

Declaration of roaming will enable VHA and Optus to achieve coverage that was contiguous with the subsidised sites. VHA and Optus would then be able to tender effectively for the government subsidies as they would have contiguous coverage to the subsidised sites.

In the absence of declaration of roaming, Telstra is (by default) a near monopsony acquirer of government subsidies in regional Australia. Economic theory would suggest that Telstra could use that monopsony power to obtain greater taxpayer funding that may otherwise be the case. Telstra has every incentive to refuse to build regional mobile infrastructure in the natural monopoly areas unless and until it receives government funding. Telstra has every incentive to inflate the costs of building such infrastructure so that it receives a higher level of government funding.

[C-I-C]

Telstra appears to be 'excessively inefficient' in its cost of building new towers in regional Australia, resulting in Telstra receiving larger taxpayer subsidies for those mobile towers where it faces no competition for subsidies. By way of example:

- VHA's internal assessment shows that in round 1 of the Mobile Blackspot Programme, Telstra's average cost of building a new mobile site is over \$800,000.
- VHA's average cost of building a new mobile site is about \$500,000.
- Based on VHA's calculations, Optus appears to have an average cost of building a new tower site in round 2 of around \$550,000.

VHA has not yet identified any legitimate reason why Telstra's costs should be some 60% higher than the costs of VHA and Optus. The ACCC may wish to further investigate this issue, particularly whether Telstra's tower build costs are coincidentally higher for those sites in which Telstra faces no competition for subsidies from VHA and Optus.

In other words, VHA could typically build three sites for every two sites Telstra builds under round 1 of the Mobile Blackspot Programme.

Q1.6 Evidence - the Mobile Black Spots Programme

[C-I-C]

Q1.7 The difficulties with government subsidies are widely recognised

As the ACCC will be aware, VHA has also been advocating greater sharing of mobile regional telecommunications infrastructure in the context of Universal Service Obligation (USO) funding.

Over the next decade, some \$3 billion will be spent on USO funding. In VHA's July 2015 submission to the Regional Telecommunications Review 2015, VHA relevantly recommended that the current USO be replaced with a more transparent and efficient model and that a portion of the current USO funding of \$100 million per annum be used to expand the mobile blackspots programme.

A change in the way the government spends public money is required. This is recognised in the conclusions of the Regional Telecommunications Review 2015. The Shiff Report recommends a new funding mechanism, the Consumer Communication Fund, that will support certain loss-making regional infrastructure and services.

Professor Reg Coutts has written a paper which recommends establishing a Universal Service Fund to help fund non-commercial but socially important telecommunications infrastructure.³ This fund

³ See: Coutts Communications, Better Telecommunications Services for All Australians, Rethink the Universal Service Obligation; July 2015; Reg Coutts, Better Telecommunications Services for All Australians: Further thoughts on the

would provide funding for essential services to improve mobile coverage and choice in regional Australia via an expanded mobile blackspots programme. The paper encourages expanding mobile coverage by using government funding to boost private sector investment and industry collaboration.

VHA would be happy to discuss with the ACCC the types of infrastructure sharing solutions that have been developed in other countries to reduce the cost of mobile deployment in low density population areas. Further detail on these issues is set out in VHA's response to the next ACCC question.

[C-I-C]

(b) Nature and extent of mobile network sharing

Q2. What is the extent of mobile network co-location of infrastructure (or infrastructure sharing) in: (a) regional Australia? (b) metropolitan Australia?

Q2.1 The existing extent of mobile network sharing in Australia

As the ACCC identifies in its Discussion Paper, some mobile network sharing already occurs in Australia. This is, however, predominantly focused on metropolitan areas.

The concept of 'mobile network sharing' includes roaming, and has been explained by the OECD in the following terms, including an identification of the different types of mobile network sharing:⁴

"Mobile network sharing is the generic term for when mobile network operators (MNOs) share part of their networks together. The term is generally used for when larger parts of the network, such as antenna-sites and backhaul are shared, but can mean different things to different people. Networks can share many different elements with different competitors, or purchase it from third parties as a service (outsourcing), which can have the same effect as sharing... In general terms, there are four forms of network sharing:

- Passive sharing, e.g., sharing of sites, masts and antennae;
- Active sharing, e.g., Radio Access Network (RAN) sharing;
- Core network sharing; and

universal service obligation, AJTDE Vol 3, No 4, December 2015; and Coutts Communications, submission to the Productivity Commission Inquiry into the Future Direction of the Universal Service Obligation in Australia, July 2016.

⁴ OECD (2014), "Wireless Market Structures and Network Sharing", OECD Digital Economy Papers, No. 243, OECD Publishing, page 58

- Network roaming.”

Passive infrastructure sharing, or ‘passive sharing’, encompasses all the non-electronic elements required for a mobile site. These can include: the tower itself, buildings or shelter, air conditioning plant, security, electricity generation capability for back-up, an electrical supply, technical premises and pylons.

Active infrastructure sharing, or ‘active sharing’, encompasses the electronic elements required by a mobile site. These can include: base stations, microwave radio equipment, switches, antennae and transceivers.

Radio Access Network (RAN) sharing encompasses the sharing of an entire radio access network across a set of locations, including both active and passive infrastructure. In essence, the mobile sites (with electronics) and backhaul to the core network are shared, but the core network is not shared. RAN sharing may sometimes include the sharing of radiofrequency spectrum.

The OCED’s classification is consistent with international best practice and can be applied to mobile telecommunications in Australia:

- ***Passive sharing (backhaul transmission):*** Significant sharing of backhaul transmission already occurs in regional Australia, typically via the leasing of capacity in existing backhaul transmission links owned by Telstra. In regional Australia, as the ACCC is aware, the absence of competition on the transmission routes has led to Part XIC access regulation of this transmission to encourage greater and more efficient sharing of such infrastructure.

[C-I-C]

- ***Passive sharing (co-location on towers):*** As the ACCC identified in its Discussion Paper, the facilities access regime in the *Telecommunications Act 1997 (Cth)* requires carriers to share space on their mobile towers with other carriers, leading to co-location of mobile antennae and base stations. VHA has identified in this submission how the facilities access regime has been applied in practice, including the difficulties with the application of that regime.

While the facilities access regime has been effective in promoting commercial arrangements for passive sharing, there are still various strategies that can be adopted by a carrier to impede access if it did not wish to share a tower (e.g., building a tower that can only host one occupant; reserving spare capacity on the tower for itself; over-charging for access; or locating a competitor at a lower height hence giving the competitor less geographic signal coverage).

- [C-I-C]

- ***Core network sharing (MVNOs and resale):*** Core network sharing can be more appropriately described as ‘resale’ or an ‘MVNO’ arrangements. As the ACCC identifies in its discussion paper, each of the MNOs have significant resale arrangements, including some large MVNOs. The MVNOs have typically targeted niche market segments or consumer groups. The MVNOs tend to be competitively aligned to complement their host network. The MVNOs have a limited impact on the competitive dynamic between the three MNOs when it comes to the scale and scope of network investment decisions (and hence the scope of competition in regional Australia).
- [C-I-C]

As identified above, two forms of mobile network sharing are already mandated in Australia, namely sharing of backhaul transmission (via the Part XIC access regime) and sharing of space on mobile towers (via the inter-carrier facilities access regime). Both regimes have historically been effective in encouraging sharing of infrastructure.

Q2.2 Differences in passive sharing between metropolitan areas and regional areas

VHA’s experience with passive sharing in metropolitan and regional areas is as follows:

- Passive sharing (backhaul transmission) tends to occur heavily in regional Australia given that only one (or in some cases two) carriers have transmission on particular routes, typically Telstra. Other MNOs therefore have little choice but to acquire backhaul from Telstra. Telstra has historically recovered significant monopoly rents on the regional transmission links; far in excess of Telstra’s costs of building and operating those links.
- Passive sharing (co-location on towers) has tended to occur in metropolitan areas, but has been less common in regional areas. VHA believes that one of the key reasons for this difference is that Telstra has every incentive, as a vertically-integrated natural monopolist, not to share its regional tower infrastructure where it can increase retail revenues by not doing so. By not sharing, Telstra can impede competitive network deployment by other MNOs in regional areas of Australia and hence raise its rival’s costs and impede effective competition.

VHA will provide precise data on the extent of its existing co-location and site sharing in metropolitan and regional areas in its response to the ACCC’s separate information request. As at the date of this submission, VHA is still preparing its response to the ACCC’s information request.

Q3. How effective is the facilities access regime in promoting access to mobile network infrastructure, in both regional and metropolitan areas? Are there any limitations of the facilities access regime in facilitating the expansion of mobile networks in regional Australia?

Q3.1 Effective commercial outcomes in metropolitan Australia

The facilities access regime in the *Telecommunications Act 1997 (Cth)* enables the sharing of space on mobile sites by way of co-location of mobile network equipment on mobile towers and in adjacent huts located on the sites.

The carriers have rarely exercised their rights under the facilities access regime. VHA is aware of only once instance where an arbitration has been sought in relation to facilities access to towers and that involved a dispute taken by Telstra against Optus. In the case of metropolitan areas, there is little commercial incentive for an MNO to deny sharing its tower. By sharing a tower, the MNO can generate additional revenue from the tower. Consequently, significant sharing of mobile infrastructure occurs in metropolitan areas of Australia.

Moreover, both VHA and Optus historically sold large numbers of towers to Crown Castle Australia (now Axicom). Axicom has every incentive to maximise its profits by, for example, maximising the number of carriers sharing on each of those towers. The divestiture of the towers to an independent third party has therefore resulted in greater sharing of infrastructure than would have otherwise been the case.

Q3.2 Ineffective commercial outcomes in regional Australia

However, the incentives in regional Australia are different. Telstra has by far the largest portfolio of regional towers. Telstra has every incentive to deny access to its towers to raise the price and delay access to upstream inputs in order to increase its downstream retail profits. The commercial incentives on Telstra are not conducive to sharing, hence Telstra has engaged in extensive gaming in order to delay and frustrate the sharing of its regional mobile tower infrastructure with its rivals.

In this context, the facilities access regime has limitations. The practical limitations of the regime have meant that the regime has not been as effective as one would have expected in overcoming circumstances where the incumbent facilities owner has sought to impede access. Consequently, there is less sharing of mobile tower infrastructure in regional Australia than there is in metropolitan Australia.

[C-I-C]

Notwithstanding the limitations of the existing regime, VHA would be very concerned if the existing regime was removed from the Telecommunications Act and replaced by access regulation under Part XIC. While the facilities access regime is not perfect, it does provide for direct ACCC intervention by

way of arbitration. The difficulty with Part XIC is that the ability for the ACCC to intervene to address anti-competitive conduct by Telstra is severely curtailed.

Q3.3 Evidence- the Mobile Black Spots Programme

[C-I-C]

Q4. Would more extensive co-location requirements be an effective substitute for mobile roaming services?

Q4.1 Co-location is not a substitute for mobile roaming

More extensive co-location requirements would **not** be an effective substitute for mobile roaming services in most of the locations in which roaming is sought by VHA. It is for this reason that international regulators and policy makers in virtually every western economy with a large land area and areas of low population density have mandated roaming **in addition to** co-location regimes.

Mobile roaming enables active infrastructure sharing, whereas co-location only enables passive infrastructure sharing. Mobile roaming therefore enables full mobile network sharing of a single mobile network, whereas co-location only involves sharing of the tower infrastructure and otherwise involves the duplication of the remaining substantial costs of mobile networks. Co-location is a far less efficient form of infrastructure sharing, requiring the co-locating MNO to duplicate the Radio Access equipment (antennae), power supply, cabling etc.

The key implication of this difference is that co-location does not address the fundamental natural monopoly problem in regional Australia. A facilities access regime already exists in regional Australia to facilitate co-location towers, but even with the existence of that regime it is not economic for VHA or Optus to deploy mobile infrastructure in the natural monopoly areas. This issue is discussed in detail in Section 1 of Part A of this submission.

Specifically:

- Collocation is only a solution in circumstances where it would sufficiently reduce the costs of network deployment by a mobile competitor that an investment that was otherwise uneconomic ($NPV < 0$) would be rendered economic ($NPV > 0$).
- Co-location is not a solution where the revenue from a cellular tower is so low that the costs of deploying and operating network electronics on a tower, in conjunction with the cost of backhaul transmission, would not be recovered by a competitor.

- In this manner, co-location is not an effective substitute for mobile roaming services where a competitive deployment is still uneconomic even with co-location. As identified by VHA's financial modelling, this is the case for much of Telstra's regional mobile monopoly area.

The lack of substitutability between roaming and co-location has been affirmed by the Canadian Radio-television and Telecommunications Commission (CRTC) in its examination of the wholesale mobile wireless services market in Canada. The CRTC commented:⁵

“With respect to the availability of economically feasible and practical substitutes, the Commission notes that wholesale roaming enables wireless carriers to (i) provide coverage in areas where they do not have spectrum, and (ii) fill in coverage gaps in areas where they do have spectrum, but have not deployed network facilities.

To provide broad or national network coverage to its retail customers without relying on wholesale roaming, a wireless carrier would have to acquire spectrum and build out extensive network facilities (either on its own or as part of a network-sharing arrangement). There will continue to be an imbalance in spectrum holdings between national wireless carriers and smaller wireless carriers in the short to medium term. Building out a broad or national mobile wireless network is not an economically feasible or a practical substitute for wholesale roaming in the short to medium term.

Furthermore, if a smaller wireless carrier were to enter into a network-sharing arrangement, the arrangement would likely only cover a particular portion of the country, and wholesale roaming arrangements would likely still be necessary for smaller wireless carriers to provide broad or national network coverage to their retail customers.

Therefore, the Commission determines that there are no economically feasible or practical alternatives to GSM-based wholesale roaming for smaller wireless carriers in the national market in the short to medium term”.

The New Zealand Commerce Commission (NZCC) has also expressed a similar view:

“Network build is not a viable substitute for roaming... There are important differences between the two services of co-location and roaming and their respective roles in an entrant's ability to offer coverage. Roaming provides the entrant with the ability to offer, at launch, mobile services beyond its initial network reach, and this ability to offer national coverage is generally accepted as being an important feature of a mobile service. Co-

⁵ CRTC, Regulatory framework for wholesale mobile wireless services, Telecom Regulatory Policy CRTC 2015-177, 5 May 2015, paragraphs 65-68.

location relates to the gradual deployment of the entrant's network. As a result, in the short term, co-location is not likely to be a substitute for roaming, as roaming offers immediate coverage."

Q4.2 Evidence – VHA's modelling of the natural monopoly areas

VHA's economic modelling assumed that full co-location on towers would be provided by Telstra. Even with this assumption of full co-location, it is clearly not economic for VHA to deploy a mobile network in the identified areas. This is a highly conservative assumption as in practice full co-location is never available for the reasons outlined above. In such circumstances, the supply of roaming provides the only practical solution.

Q5. To what extent does regulation of the DTCS, including through regulated pricing, assist MNOs in extending their mobile networks in regional Australia? Please explain your views

Q5.1 Critical importance of DTCS access regulation to mobile network competition

The regulation of the domestic transmission capacity services (DTCS) is critical to VHA's ability to operate its mobile network in regional Australia.

The price set for the DTCS by Telstra in regional Australia is one of the primary determinants of the extent of VHA network build in the absence of a roaming declaration. The high prices for regional backhaul DTCS has created a barrier that has enabled Telstra to impede the development of facilities based competition in regional Australia.

VHAs has previously made extensive submission to the ACCC on the importance of the DTCS to VHA's mobile network operations. In essence, VHA must connect each base station in its network to VHA's core network. Such connections are achieved by a combination of microwave and fibre optic transmission. Much of this transmission must be leased from Telstra either in the form of inter-exchange transmission or transmission tails to a particular base station.

[C-I-C]

Q5.2 Evidence – potential impact of DTCS FAD on economic modelling

[C-I-C]

(c) Lessons from the international experience

Q6. Are international arrangements for the regulation of mobile roaming relevant to the Australian market? Please provide reasons for your view.

Q7. Where have international regulators made decisions not to regulate domestic mobile roaming services? Are such decisions relevant to the regulation of mobile roaming in Australia? Please provide reasons for your views.

Q6 *Relevance of international arrangements*

Australia has one of the largest land areas of any country in the world and one of the lowest population densities. Australia's uniquely vast geography and very low population density mean that Australia is uniquely susceptible to market failure caused by natural monopoly.

Domestic roaming has been regulated in virtually every western economy with a large land area of low population density. However, none of these countries have a population density as low as Australia. The market failure in Australia is commensurately greater and the need for regulatory intervention commensurately more acute.

International arrangements in other western economies with large land areas and areas of low population density are therefore clearly relevant to the Australian market. VHA has set out in **Part C** of this submission an analysis of some of the key jurisdictions mentioned by the ACCC in its Discussion Paper, namely United States, Canada, New Zealand and United Kingdom.

As the ACCC has identified, the issue whether roaming should be regulated is not unique to Australia. Many jurisdictions have historically considered this same issue. Some have decided to regulate roaming, whereas others have not. Different jurisdictions have emphasised different factors when making their respective decisions.

VHA cautions against relying on the experiences of other countries as a determinative factor in declaring roaming in Australia without identifying whether the factors leading to regulation (or the absence of regulation) are factors shared by Australia. There are many unique features of the Australian environment that are not shared by other countries, as identified in VHA's submission. These unique features include the market structure, Telstra's dominance in regional Australia, the regulatory environment, and the extent of government subsidies.

Each of these differentiating factors make the case for declaration of roaming in Australia stronger.

Q7.1 Vodafone Group's international experience with roaming

For the purposes of this submission, VHA has sought to distil the global perspective on domestic roaming that it has gleaned from the extensive global experience of one of its shareholders, Vodafone Group, into a few key insights. These insights are relevant to Australia.

Vodafone Group's international experience with roaming can be summarised as follows:

- In most mature competitive wholesale markets around the world, MNOs have reached commercial agreements involving roaming or extensive infrastructure sharing or both. Australia is one of the few markets in the world where the largest MNO does not currently have domestic roaming or active infrastructure sharing agreements with other MNOs.
- In countries with less than 4 operators, regulatory or political pressure has normally been required to create incentives for commercial negotiations between MNOs. The level of regulatory intervention has normally been proportionate to the size of the identified market failure, consistent with competition policy principles. As identified in this submission, regional Australia is at the more severe end of the market failure continuum.
- Vodafone is not aware of any national roaming arrangement where an MNO has sought to artificially constrain the coverage. Vodafone is not aware of any mobile operator that has discriminated in making available its wholesale roaming coverage to other operators, or where an operator has selectively offered access only to contestable parts of its network.
- In circumstances where commercial arrangements are reached, there is normally no need for regulatory intervention to require roaming services to be provided. Conversely, in circumstances where commercial arrangements have not been reached, regulation of roaming has commonly provided a solution to enable roaming to occur.
- Regulation tends to be imposed in countries that have large land area or areas of low population density, such as New Zealand, France, Spain, Norway, Canada and the United States. Roaming tends to be not regulated in countries with smaller land area and/or much higher population density, such as United Kingdom, Ireland and Germany.

VHA understands Vodafone Group takes a consistent position on roaming across its global footprint, irrespective whether it is an incumbent, or market entrant, or neither.

VHA understands Vodafone Group's global position is that regulatory intervention on roaming (whether light-handed or otherwise) should only be considered where the market has failed. This position is similar to the position adopted by regulators in most jurisdictions.

Q7.2 Application of the international experience to Australia

As VHA has demonstrated in Part A of this submission, the market for the supply of roaming is not functioning effectively in Australia. Regulatory intervention is therefore appropriate:

- [C-I-C]

VHA has provided further information on the current roaming arrangements in response to the ACCC's specific questions below.

Q8. What has been the impact of regulation of mobile roaming on competition and investment internationally? If possible, please outline whether it has impacted investment in regional and metropolitan areas to different extents

Q8.1 International experience demonstrates that investment effects are overstated

The Discussion Paper highlights that, among the jurisdictions that have decided to regulate roaming, the United States, Canada and New Zealand are the most relevant. All three jurisdictions have similar regulatory structures and a comparable level of telecommunications regulation.

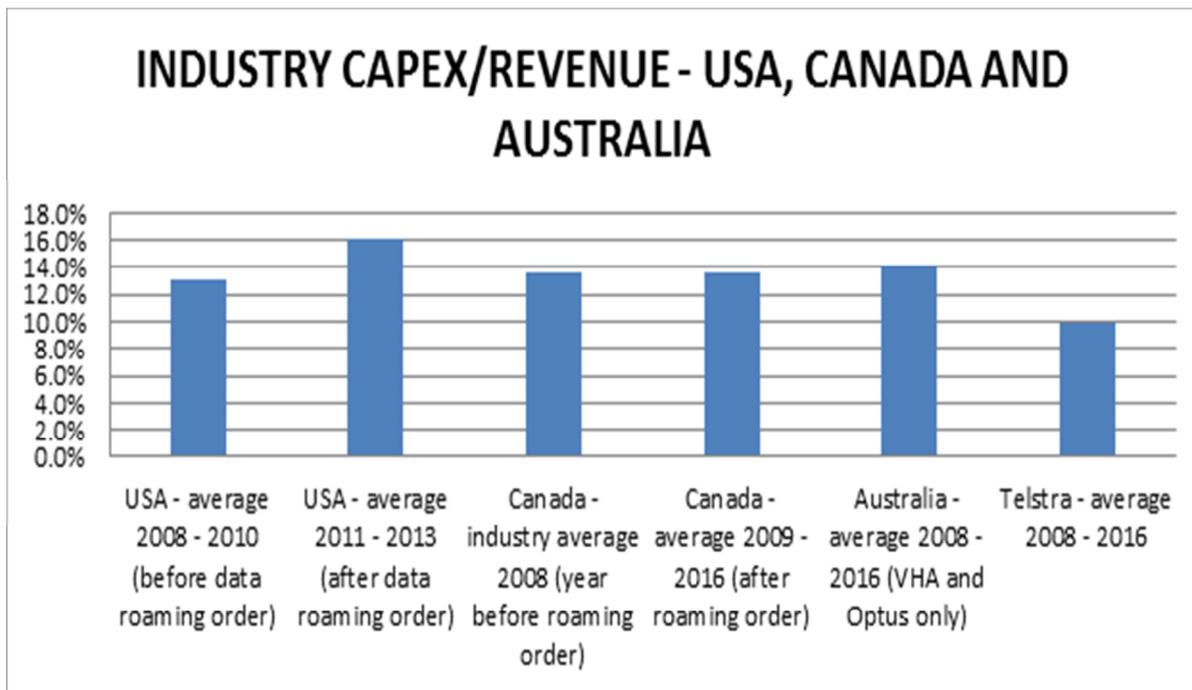
The ACCC's question essentially asks whether the mandating of roaming in these countries had any positive or negative impacts on competition and investment. A further question is whether any such impacts applied differently in regional and metropolitan areas.

VHA has set out its analysis of the investment effects of roaming in each of these countries in Part C of VHA's submission. VHA's analysis of these countries indicates that:

- In each country, the mandating of mobile roaming has facilitated materially greater retail competition.
- In each country, there is no evidence of any material negative impact on investment following mandated national roaming.

Moreover, the United States shows increased levels of capital investment across the industry following the extension of long-standing national roaming obligations to include data services. All of the United States, Canada and New Zealand (which have roaming) show a long-term trend of higher

levels of capital intensity than Australia (which does not have roaming). This is demonstrated in the chart below:⁶



VHA provides further details for each of these regimes in Part C of VHA’s submission, including evidence drawn from Vodafone Group’s international operations in some of these countries.

⁶ This chart is comprised from publically available information. Telstra does not report mobile only data so its average comprises of both fixed and mobile related capital expenditure.

2. Questions on promoting competition

(a) Market definition

Q9. What are the relevant markets for the declaration inquiry?

Q10. Is the relevant retail market a national market or are there separate regional markets for mobile services? If there are separate regional markets for mobile services, how would the boundaries of these markets be determined?

Q9 *Definition of the relevant markets*

VHA has set out a detailed response to the ACCC's proposed market definition in sections 3 and 4 of Part A of VHA's submission. To reduce the length of this submission, VHA does not repeat those submissions, but instead refers the ACCC to Sections 3 and 4 of Part A of VHA's submission.

Q10.1 *Distinctions between competition in metropolitan and regional markets*

VHA has provided a detailed submission in Part A of VHA's submission identifying that the relevant markets are geographically segmented into metropolitan markets. Again, To reduce the length of this submission, VHA does not repeat those submissions, but instead refers the ACCC to Sections 3 and 4 of Part A of VHA's submission.

VHA highlights the following additional points:

- Consistent with ACCC and judicial practice, the markets need to be defined by reference to the key issues under consideration, namely the impact on regional Australia. The need for such flexibility is recognised in the ACCC's own Merger Guidelines in which market definition is regarded as a useful tool for merger analysis, but is not regarded as itself definitive.
- There are distinct regional markets for retail mobile services for all the reasons outlined in Part A of VHA's submission. However, if the ACCC were to conclude that the market is national in scope, the different geographic areas should at least be considered as different market segments within that national market.
- The conclusion in this declaration inquiry arises irrespective of the market definition adopted. Regardless of how the ACCC defines the geographic dimension of the retail market for mobile services, the welfare benefits to Australian end-users of declaring domestic roaming services are clearly very substantial and significantly outweigh the benefits.

Q10.2 Evidence of supply-side market definition [C-I-C]

[C-I-C]

(b) Commercial arrangements for roaming

Q11. Please describe any mobile roaming arrangements currently in place and whether such arrangements have changed since the previous inquiry? Are current arrangements or agreements limited in terms of geographic scope or technology, and if so how?

Q12. Are there any current negotiations for new roaming agreements? Has there been any request for mobile roaming service which has been refused in the past three years? If so, what were the reasons for any such refusal?

Q11.1 International roaming arrangements

Each of the three MNOs have extensive reciprocal roaming arrangements in place with foreign mobile operators that enable the supply of roaming to foreign mobile end-users that visit Australia. These roaming arrangements provide full coverage across the full network of each of the relevant MNOs.

The existence of these arrangements demonstrates that a domestic roaming arrangement for the full footprint is entirely possible. Although there are different solutions for implementing different types of international and national roaming the absence of domestic roaming arrangements with Telstra is not due to any issues regarding technical feasibility.

Moreover, the fact that an international visitor can have roaming with full regional coverage, whereas a VHA or Optus customer does not, is a point of much frustration and consternation for regional consumers.

Q11.2 [C-I-C]

[C-I-C]

Q12.1 Historic roaming agreement between Telstra and Hutchison

[C-I-C]

Q12.2 [C-I-C]

[C-I-C] Both the Canadian and USA experience provide relevant benchmarks in regard to reasonable timeframes for negotiating domestic roaming arrangements. The FCC noted in its Second Report and Order in the 'Data Roaming' proceedings issued on 7 April 2011 that US carriers were having significant difficulties in negotiating commercial roaming arrangements with larger carriers. The FCC described a period of 8 months' negotiations (one quarter of the time VHA has expended in vain so far) as characterising these 'difficulties':

“Commenters also assert difficulties reaching agreements with Verizon Wireless. Cox Communications states that obtaining an initial response to a request to negotiate a roaming

agreement with Verizon Wireless required nearly four months and that negotiations over the terms of Verizon Wireless's requirement for a nondisclosure agreement consumed another four months; and thus, actual negotiations over terms and conditions of a roaming agreement did not even begin for eight months after Cox's initial request."

The Canadian rules specify that a "Responding Licensee" (ie a potential roaming provider) must respond to any request for a roaming proposal within 30 days and conclude a roaming agreement within the subsequent 60 days.⁷

[C-I-C]

Q13. Are roaming agreements for areas where there is limited infrastructure based competition likely to be reached in the future? Please provide reasons for your views.

VHA considers that the best indicator of future behaviour by Telstra and Optus is to consider what has happened historically to date.

The behaviour of both Telstra and Optus to date has been heavily influenced by their relative degrees of market power and the existence of imperfect competition in the market for the supply of wholesale regional roaming services.

Q13.1 [C-I-C]

[C-I-C]

VHA engaged international telecommunications expert Richard Feasey to provide an independent opinion on various issues relating to the declaration of roaming in Australia. Richard Feasey has the following observations on the behaviour of Telstra (at paragraph 4):⁸

"I find that the case for declaring a domestic roaming service in the geographic areas where Telstra enjoys a monopoly position is compelling. A vertically integrated monopolist does not have incentives to facilitate competition in downstream markets, except under conditions which do not apply in this case. Telstra's refusal to supply roaming in this part of its network footprint confirms that it will not do so absent regulation."

⁷ "Conditions of Licence for Mandatory Roaming and Antenna Tower and Site Sharing to Prevent Exclusive Site Arrangements", Industry Canada, March 2013, see Part B – Conditions of Licence for Mandatory Roaming.

⁸ Richard Feasey, Issues arising in relation to the ACCC's domestic roaming declaration enquiry, November 2016.

And at paragraphs 28 and 29:

“The economic literature on these issues is extensive, but the basic point is that, absent any regulatory obligations to do so, a vertically integrated monopolist would assess whether supplying a downstream competitor is more or less profitable than not doing so. It will consider the wholesale sales which it would make to its rival, but also the retail sales which it would expect to lose (including revenues it may forgo by cutting prices to retain other sales). There are some circumstances under which a vertically integrated monopolist would choose, unilaterally, to supply a downstream rival, but they tend to be very much the exception rather than the rule. For example, a vertically integrated firm might supply if it thought a rival would capture additional retail sales which it could not itself capture, perhaps because the rival had advantages in distribution or a product or brand which appealed to groups who would not otherwise buy from the monopolist, even if the alternative were not to buy at all.

How a vertically integrated firm feels about supplying a rival will also depend on the prices which the rival is prepared to pay. High wholesale prices would have the effect of both increasing the margin which a supplier of roaming services would earn from additional wholesale sales, and of increasing the retail prices offered by the purchaser of roaming , thereby reducing the retail losses incurred by the supplier. Thus, even if a monopolist has unilateral incentives to supply a rival, it is very unlikely to be on terms which could be expected to promote effective competition in the downstream market. The ACCC did not have ‘sufficient data indicating that the terms and conditions [were] unreasonable’ and it is always, in my experience, difficult for a regulator to conclude that terms are unreasonable when the firms to whom they apply appears to be a satisfied buyer.”

And at paragraph 34:

“This leads me to conclude that the ACCC should start with the assumption that Telstra is very unlikely ever to have a unilateral incentive to offer domestic roaming on reasonable terms over the network covering an area of 1.4km² in which it holds an enduring network monopoly. The Hutchison agreement of 1999, which the ACCC considered in 2004, is not a reliable basis on which to conclude otherwise. Any commercial claims advanced by Telstra during the current enquiry should, on this basis, also be treated with an appropriate degree of scepticism by the ACCC.”

Q13.2 [C-I-C]

[C-I-C]

For the purposes of this submission, VHA requested international telecommunications expert Richard Feasey to provide an independent report addressing the following issue, directed at the duopoly areas:

“What could be the regulatory basis for the ACCC declaring a domestic roaming service which encompassed areas where both Telstra and Optus may currently have coverage (or where Telstra and Vodafone or Optus and Vodafone might do so), as well as in areas where there is only a single, monopoly network provider, generally Telstra?”

Richard Feasey’s detailed independent report is set out in Part D of VHA’s submission. Richard Feasey concluded (at paragraph 6):⁹

“A declaration which required Telstra to provide domestic roaming on its monopoly network only (i.e. in those areas where only Telstra provides coverage today) would not alleviate these concerns. Telstra might face more effective competition from Optus, but Vodafone would still not be an effective competitor since consumers will not accept coverage in some areas but not others. Knowing this, Telstra would have strong incentives to withhold the supply of roaming in undeclared duopoly areas (i.e. where both it and Optus provide coverage, but Vodafone does not) and Optus would similar incentives. It is important that the ACCC recognises this complementarity between the supply of domestic roaming in the monopoly areas and supply in duopoly areas, and that the scope of the declaration encompasses both.”

And at paragraphs 51 to 53:

“My conclusion is that the prospects of Vodafone obtaining domestic roaming on reasonable terms from either Telstra or Optus in these areas will worsen, perhaps significantly. That is because, if the two areas are complementary and Telstra is obliged to supply in the monopoly area, the only way it can now deny access to the monopoly area (or diminish the value of such access) is to deny access in the duopoly area. Telstra will therefore have unilateral incentives (which it did not previously have) to refuse to supply in those areas where it faces competition from Optus.

The stakes are higher for Optus too. If it supplies Vodafone in the duopoly area, it knows that this will enable Vodafone to fully exploit the competitive benefits conferred by the declaration of the monopoly area. If it refuses to supply, these benefits will still be enjoyed by Optus (who will be able to take advantage of the declaration to expand its own footprint to include the 1.4 million km² it does not cover). Optus can therefore expand the scope of the area over which it enjoys a duopoly with Telstra, whilst restricting Vodafone’s ability to do the same. It seems to me that, as a result, both firms would have strong unilateral incentives to refuse to supply Vodafone.

⁹ Richard Feasey, Issues arising in relation to the ACCC’s domestic roaming declaration enquiry, November 2016.

If this is right, then even if one or other of Optus and Telstra would supply Vodafone in the absence of a declaration (which the evidence I have seen does not support), they are very unlikely to do so if access to the Telstra monopoly area is required by the ACCC. Thus, to realise the full competitive benefits of any declaration on domestic roaming, I conclude that the ACCC would need to declare a service in both those areas where Telstra holds a monopoly and in those areas where both Telstra and Optus currently provide coverage.”

[C-I-C]

(c) Effectiveness of competition in retail mobile markets

Q14. Is competition effective in the mobile services market and how does it differ in metropolitan and regional areas of Australia? Please provide evidence and reasons for your views.

Q14.1 Effectiveness of competition in the metropolitan and regional mobile services markets

VHA has set out a detailed analysis of the level of competition in metropolitan and regional mobile services markets in Sections 3 and 4 of Part A of this submission. To reduce the length of this submission, VHA does not repeat those submissions, but instead refers the ACCC to Part A of VHA’s submission.

VHA has explained in Part A that Australia’s mobile markets are highly concentrated with very high HHIs.

- By global standards, Australia’s mobile market is now very highly concentrated. The key measure of market concentration in Australia and internationally, the Herfindahl-Hirschman Index (HHI) number, is at least 3,100 (for handset services) and at least 4,300 (for non-handset services). Under the Merger Guidelines, the ACCC indicates that levels of HHI of more than 2,000 will start to raise competition concerns.
- As the ACCC will be aware, economic theory suggests that asymmetric concentrated markets normally provide worse competitive outcomes than symmetric concentrated markets. This result is factored into the HHI calculations by its squaring property, meaning the HHI is highly sensitive to competitive asymmetry. A much higher HHI results from a situation of asymmetry. [C-I-C]

Competition is perceived as relatively effective in metropolitan areas, but is soft by global standards. In regional areas, competition is very soft and the competitive constraints on Telstra are not effective. Within this environment, Telstra has leveraged its market power.

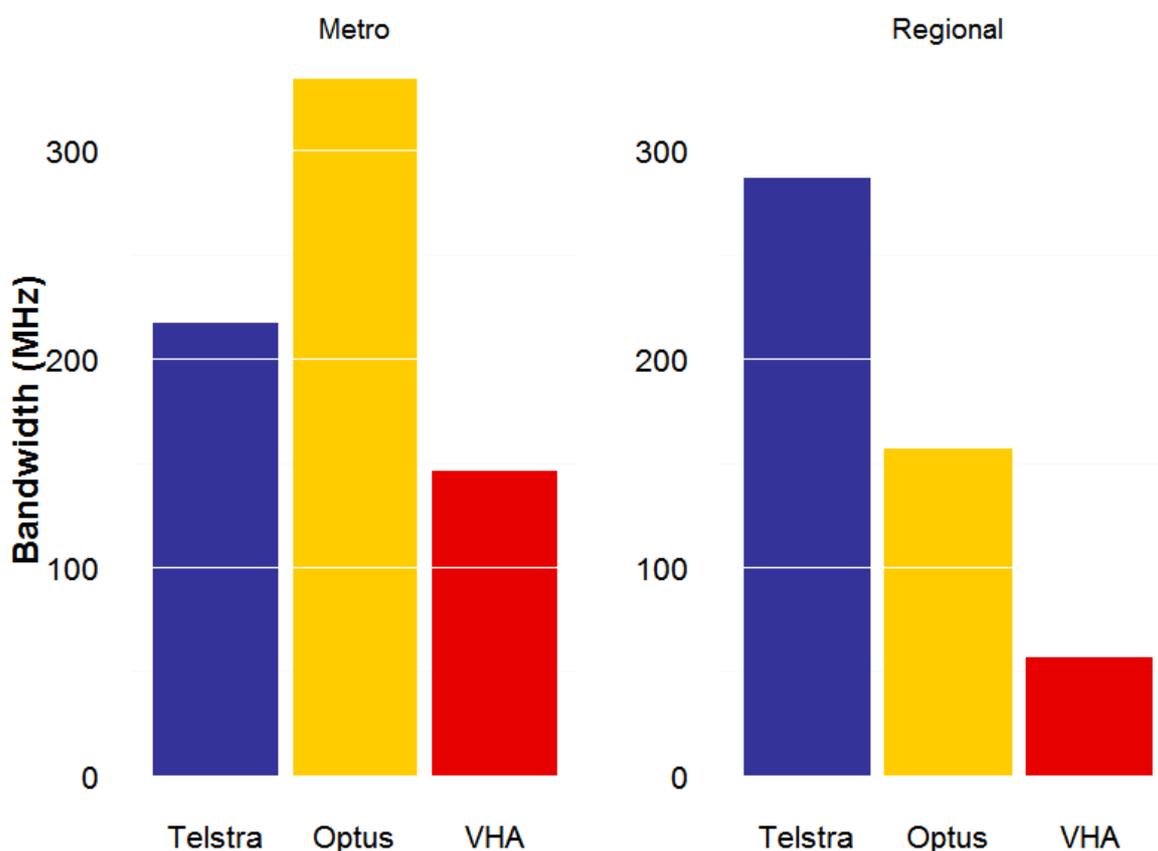
VHA has also explained that coverage-based competition is not effective where it is distorted by natural monopoly, resulting in a softening of competition and a weakening of competitive constraints on Telstra. Substitution to other forms of competition will deliver real improvements in the quality and intensity of competition and will properly restrain Telstra's market power.

Q14.2 Evidence – asymmetry in spectrum holdings

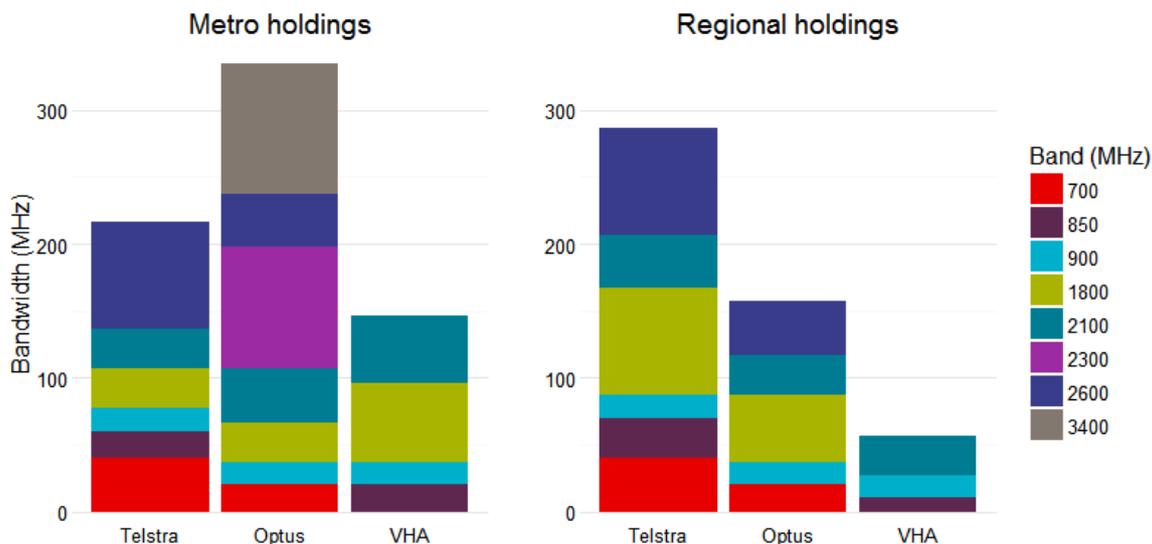
There are several other relevant factors which illustrate the way competition in the mobile services markets is very different between metropolitan and regional areas of Australia.

The following graphs demonstrate, for example, how Telstra's advantage in regional Australia arises due to a significant difference in regional spectrum holdings. Telstra has double the spectrum held by Optus, and more than triple the spectrum held by VHA.

This graph shows each MNO's spectrum holdings in the aggregate:



This graph shows each MNO's spectrum holdings by spectrum bands:



As a practical matter, Telstra therefore has a mobile network that can sustain significantly more customers in regional Australia than either Optus or VHA. Telstra has also been able to bid up the price of this spectrum to a level that raises the cost structure of Optus and VHA in Telstra's favour. The higher prices paid for spectrum translate to higher charges payable by all mobile consumers.

Q14.3 Evidence – ACCC's findings in Final Decision for MTAS declaration inquiry

The ACCC undertook an analysis of the state of competition in the mobile retail markets for the purposes of the ACCC's analysis of the re-declaration of MTAS. The ACCC reached the following conclusions in 2014 (page 16):

“The ACCC considers competition in the retail market for mobile services is in a state of transition as the focus of competition is shifting from traditional voice and SMS services to data services. As outlined in the draft decision, the ACCC considers that the mobile services market has exhibited signs of effective competition at times, while at other times competition has appeared to be more subdued.”

“The ACCC considers that the mobile services market is, and is likely to remain, relatively concentrated due to the limited number of MNOs and high barriers to entry.”

“Figure 5.1 shows that the largest MNO, Telstra, has increased its market share in the past five years, while the smaller MNOs' market shares have decreased. While the changes have been small, the ACCC considers this reflects a slight increase in concentration in the retail mobile services market. Although the market share of MVNOs has also increased throughout the period, their overall market position remains weak compared to the MNOs.”

“As observed in the draft decision, price competition in the retail mobile services market seems to have been less vigorous in recent years. In 2012–13, the average real price for retail mobile services fell by 1.2 per cent, only marginally higher than the decrease of 1 per cent in the previous year. These price movements are consistent with previous years and reflect a general plateauing of price reductions. This compares to an average yearly decrease of 3.7 per cent in the five years prior to 2011–12.”

Q14.4 Further evidence provided by VHA

Please refer to Part C of this submission.

Q15. How does Telstra’s coverage advantage in areas where it is the only MNO affect its ability to compete for customers in the national retail mobile services market? How does this compare to its ability to compete for consumers in regional areas? Please provide evidence and reasons for your views.

Q15.1 Impact of Telstra’s coverage advantage on ability of other MNOs to compete

VHA has set out a detailed analysis of Telstra’s coverage advantage in sections 1 to 4 of Part A of this submission. To reduce the length of this submission, VHA does not repeat those submissions, but instead refers the ACCC to Part A of this submission.

VHA has identified in Part A that Telstra has bundled its natural monopoly coverage with contestable coverage. Mobile consumers that value coverage will choose Telstra. These ‘spillover effects’ exacerbate and dramatically magnify the natural monopoly problem identified in VHA’s submission.

VHA has explained in Part A that it agrees with the proposition that an MNO should be able to differentiate itself based on non-price factors, including coverage. However, VHA does not agree that an MNO should be able to capture a natural monopoly, [C-I-C], then bundle that natural monopoly with its retail offering in such a way that no other MNO can compete.

VHA also explained in Part A that coverage-based competition is not effective where it is distorted by natural monopoly, resulting in a softening of competition and a weakening of competitive constraints on Telstra. Substitution to other forms of competition will deliver real improvements in the quality and intensity of competition and will properly restrain Telstra’s market power.

Q15.2 Evidence – site density is also critical

There are several other relevant factors which illustrate the way Telstra’s coverage advantage has an adverse impact on competition.

Telstra’s coverage advantage is manifested not just in geographic scope, but in site density around important regional centres. Density affects quality of service and strength of coverage (i.e. depth of service).

[C-I-C]

In both areas, it is not economically efficient for VHA to replicate Telstra's network. This has a significant impact on the competitive dynamics these areas.

Given the critical importance of this issue to the declaration inquiry, VHA requested leading global economics consultancy Compass Lexecon (via Dr Derek Ritzmann, previously a principal economist at the ACCC) to independently advise on the implications of Telstra's coverage under the conditions set out for expert witnesses by the Federal Court Rules.

Compass Lexecon's full report is set out in full in **Part D** of this submission.

Compass Lexecon relevantly concluded:¹⁰

“...there are likely to be competition spillover effects from the natural monopoly and non-contestable areas into the potentially competitive, genuinely contestable areas. Customers who require regional coverage must choose a provider who can supply coverage in the entire “bundle” of regions. The consequent horizontal bundling or tying effect helps Telstra to leverage its market power from the natural monopoly and non-contestable areas into the contestable areas. This bundling mechanism for leveraging of market power, well recognized in the literature, softens competition in the contestable areas, including likely in urban areas. Telstra's uniform national price acts as a transmission mechanism to exacerbate this effect. An enhancement of competition in the natural monopoly areas would therefore also likely enhance competition in the competitive areas.”

International telecommunications expert Richard Feasey also independently reached the same conclusion in his independent expert report:¹¹

“I consider that competition in Australia's retail mobile markets is ineffective as a result of Telstra's refusal to supply roaming. A relatively small number of consumers in regional Australia have no choice of supplier at all, since Telstra is the only firm to offer them coverage. A much larger number of consumers in suburban and urban areas which appear to be competitive are also ‘captive’ to Telstra because they value network coverage which neither of Telstra's rivals, Optus and Vodafone, is able to offer today. Both sets of ‘captive’ customers pay too much for their mobile services as a result. Another group which also values coverage simply cannot afford it at the prices charged by Telstra today.”

¹⁰ Dr Derek Ritzmann, Domestic Mobile Roaming Declaration Inquiry Expert Report, 23 November 2016, page 4.

¹¹ Richard Feasey, Issues arising in relation to the ACCC's domestic roaming declaration enquiry, November 2016, paragraph 5.

Richard Feasey's full report is set out in full in **Part D** of this submission.

Q15.4 Evidence – [C-I-C]

[C-I-C]

Q15.5 Evidence – Market share by region

[C-I-C]

Q15.6 Further evidence provided by VHA

Please refer to Part C of this submission.

<p>Q16. What are the key drivers of competition for mobile services in metropolitan and regional areas of Australia?</p>

Q16.1 Drivers of competition in metropolitan and regional areas

VHA has set out a detailed analysis of the different drivers of competition in metropolitan and regional areas of Australia in Sections 1 to 4 of Part A of this submission. To reduce the length of this submission, VHA does not repeat those submissions, but instead refers the ACCC to Part A of this submission.

VHA has identified in Part A the importance of coverage to competition and the manner in which Telstra's bundling of contestable and non-contestable coverage has softened competition throughout all Australian retail mobiles markets. VHA has also identified in Part A the importance of coverage to regional consumers, as contrasted with metropolitan consumers.

VHA has identified in Part A that the impact of coverage on consumers has been consistently overstated by Telstra in its advertising. Telstra has sought to leverage its natural monopoly by pointing out that it is the only MNO able to provide coverage in the Telstra monopoly areas, even though only 1% of the population live in those areas.

Because coverage has become part of Telstra's overall strategy of network differentiation and has been overstated by a decade of intense advertising, the spillover effect associated with the natural monopoly has permeated throughout the mobile market in Australia. This means, for example, that a metropolitan consumer may value the Telstra network, even though that metropolitan consumer may never travel into the natural monopoly area.

Richard Feasey has considered these issues in detail in his independent report in Part D of this submission. VHA has also provided further explanation of the spillover effects in Part A of this submission and in some of VHA's question responses below.

Q16.2 Other key drivers of consumer preference

VHA has identified the key factors that influence consumer choice of service provider in its response to ACCC Q 24 below.

Q16.3 Telstra has conflated coverage and quality in its advertising

There are many examples where Telstra has sought to conflate its network coverage with other features of non-price competition, including in claims that Telstra has the 'best' network and 'most reliable' network. VHA has provided examples in its main submission in Part A of this submission.

VHA emphasises that the key drivers of competition in the Australian retail mobiles markets are influenced, to a high degree, by the advertising and marketing strategies of the MNOs, particularly Telstra.

Telstra designs these advertisements so that they are not misleading consumers in contravention of Telstra's legal obligations, but they certainly overstate and obfuscate the underlying issues in a manner that comes very close to doing so.

By adopting this strategy, Telstra has extended its regional coverage differential into all aspects of its mobile consumer strategy, including well beyond the concept of coverage itself. Consequently, in VHA's view, this has created considerable consumer confusion to both regional and metropolitan consumers. VHA has explained this in more detail in Part A of its submission.

[C-I-C]

(d) Differences in regional and metropolitan competition

<p>Q17. Is there any regional variation (e.g. price, inclusions, terms and conditions) in retail mobile services offered in Australia? If yes, please provide evidence to support your views.</p>
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Q17.1 Regional variations in retail mobile services offered in Australia

VHA has set out a detailed analysis of retail variations in mobile services offered in Australia in sections 1 to 4 of Part A of this submission. To reduce the length of this submission, VHA does not repeat this analysis, but instead refers the ACCC to Part A of this submission.

VHA considers there are regional variations in the quality of competition. The product offerings of the

MNOs do not normally differentiate by geographic area, but such differentiation occurs more subtly in the form of selective marketing and discounting.

Q17.2 Evidence – below the line discounting

While the ACCC has highlighted the existence of a uniform national price, the reality of retail mobile competition in Australia is that there are a myriad of different call plans and price points. These call plans and price points may be offered to different types of customers in different circumstances, including with selective offers and so-called ‘below the line’ discounting.

As the Productivity Commission highlighted in its detailed Telecommunications Services Review in its review of *Telecommunications Competition Regulation* in 2001 (page 131):

“Mobile service providers compete in terms of multidimensional service plans. For example, plans can differ in relation to length of contract period, handset prices, connection charges, monthly access fees, call charges, and special options such as voicemail and short messaging services. Call charges in turn can depend on the flagfall charge, charge per time interval, time of day, distance, and whether or not a call is made to another customer on the same network.”

Notwithstanding that this comment was made over a decade ago, it remains equally applicable today.

In this market environment, it is very easy for a mobile operator such as Telstra to price discriminate on a practical basis, even though its pricing is ostensibly nationally uniform. Telstra could, for example, selectively target a discounted offer only at VHA customers, knowing that such customers are generally not located in regional Australia. The concept of a ‘national uniform price’ is a smokescreen for significant practical price discrimination.

As international telecommunications expert Richard Feasey explains in his independent report:¹²

“I understand that mobile service prices in Australia are set on a nationally averaged basis, at least at the headline level, as they are in most markets around the world. Operators do frequently target ‘below the line’ discounts in an attempt to retain or acquire particular consumers, or consumers in a particular area, and I would expect such discounts to arise in the Australian market. Telstra would, I think, be more likely to target such discounts at consumers who already face a choice of service providers, rather than those in regional Australia where Telstra retains a monopoly or duopoly position.

¹² Richard Feasey, Issues arising in relation to the ACCC’s domestic roaming declaration enquiry, November 2016, paragraph 61-63.

Telstra's headline prices will, however, be constrained by competition from Optus and Vodafone, meaning that consumers in regional Australia obtain some protection against exploitative or excessive pricing, even if Telstra is their monopoly supplier. These competitive constraints are most significant in areas where Telstra faces competition from both Optus and Vodafone and somewhat less so when Telstra faces competition only from Optus. Even in the former case, however, this represents over 95% of the population and likely a similar or greater proportion of Telstra's revenues and profits.

This, however, is only part of the story because we also need to ask ourselves how effective the competitive constraints provided by Vodafone and Optus might be. This depends, for our purposes, on the number of consumers in competitive areas who value coverage in regional Australia (I recognise that Vodafone and Optus may represent weak competitive constraints to Telstra for reasons other than coverage but, provided these other factors are unaffected by a declaration of roaming, they are present in both the factual and counterfactual and can be ignored). Simply put, if the proportion of the 95% of the population in 'competitive' areas that value regional coverage is large (or such customers are disproportionately valuable or profitable), then Telstra will in fact face relatively weak competitive constraints in those areas where it faces retail competitors, as well as in those areas where it does not. This means that Telstra will enjoy a degree of market power and will be able to sustain prices substantially above the competitive level without the fear that many of its customers will switch to Vodafone or Optus. Those who do not value coverage very highly might switch, but if they represent a small proportion of the overall population, then it will still be profitable for Telstra to sustain high prices across the market as a whole."

Q17.3 Evidence – retention discounting

The way such below the line discounts can be provided is often very nuanced. For instance below the line discounting could occur in circumstances where a Telstra customer indicates a desire to leave Telstra for an alternative supplier. In those circumstances, Telstra would offer a discount to retain the customer in the form of a retention discount.

As VHA's and Optus' customers comprise of largely metropolitan consumer, the use of retention discounting would disproportionately involve the supply of discounts to metropolitan consumers. In this manner, Telstra's retention strategy is a more nuanced way for Telstra to provide discounts to metropolitan consumers in order to meet competition from VHA and Optus.

[C-I-C]

Q17.4 Evidence – targeted offers not open to Telstra subscribers

Another common practice in the mobile industry is to limit offers to new mobile customers. This may be stated directly in advertisements or may involve the ‘screening out’ of existing customers by other means, including Internet log-ins and click-throughs.

Again, by limiting offers to new customers only, MNOs are engaging in a more nuanced form of price discrimination. Telstra’s new customers will tend to be disproportionately metropolitan given the higher churn rates in metropolitan areas and Telstra’s existing high market shares in regional Australia. Accordingly, the net effect of exclusive offers is to discriminate against regional Australia.

[C-I-C]

Q17.5 Evidence – Telstra’s comments regarding ‘tactical discounting’

At Telstra’s 17 November 2016 Investor Day, Mr Warwick Bray of Telstra suggested that Telstra engages in ‘tactical discounting’ in the markets for retail mobile services. Mr Bray commented:¹³

“MR BRAY... And continued improvement in minimum monthly commitment, which is very pleasing, and then the tactical discounting is somewhat offsetting that improvement in minimum monthly commitments, so those factors we talked about...”

At that point, Telstra CEO Andy Penn interrupted Mr Bray (possibly because of the mention of ‘tactical discounting’), therefore it is not clear what Mr Bray meant by ‘tactical discounting’ by Telstra in a mobiles context.

- See <https://www.telstra.com.au/content/dam/tcom/about-us/investors/pdf-e/181116-Investor-Day-2016-Transcript.pdf>

The ACCC may wish to solicit information from Telstra regarding the manner and nature of Telstra’s ‘tactical discounting’.

Q17.6 Further evidence provided by VHA

Please refer to Part C of this submission.

Q18. How does the price and range of Telstra’s retail offers compare to those of other mobile service providers? Do you consider that the higher prices charged by Telstra in comparison to other mobile services

¹³ Telstra Investor Day 17 November 2016 – Transcript, page 19.

on the market constitute a premium? What factors do you think contribute to Telstra's ability to charge a higher price? Please provide information about the level of any premium and evidence to support your views.

Telstra has set prices across the mobile markets at a significant premium to VHA and Optus. In doing so, Telstra is engaging in revenue maximising behaviour to extract a monopoly rent. Metropolitan competition has been insufficient to constrain Telstra from doing so.

Q18.1 Evidence of Telstra's price premium

VHA has set out a detailed analysis Telstra's price premium in sections 1 to 4 of Part A of this submission. To reduce the length of this submission, VHA does not repeat those submissions, but instead refers the ACCC to Part A of this submission.

As mentioned in Part A, VHA engaged economists The CIE to update a report historically prepared for VHA on the magnitude of Telstra's price premium. The CIE's updated report is provided to the ACCC as Part D of this submission. The CIE conclude:¹⁴

"The price premium paid by a Telstra customer is \$10 per month for a post-paid mobile plan, \$5 per month for a post-paid SIM-only mobile plan or mobile broadband plan, \$17 per month for a pre-paid mobile plan and \$18 per month for fixed line services.

This premium amounts to a total of \$1.4 billion extra paid each year for Telstra mobile phone services and \$1.8 billion extra paid each year for Telstra fixed line services above the average price charged for the same services by other carriers."

The CIE's detailed analysis is set out in the independent report by The CIE in Part D of this submission.

The report by the CIE identifies that Telstra's price premium has a greater impact in regional areas because Telstra holds a greater proportion of the mobile services market share and because a greater proportion of services are pre-paid rather than post-paid.

Q18.2 Factors contributing to Telstra's ability to charge a higher price

VHA has set out a detailed analysis the factors contributing to Telstra's ability to charge a higher price in sections 1 to 4 of Part A of VHA's submission.

To reduce the length of this Part B , VHA does not repeat those submissions, but instead refers the ACCC to Part A of this submission.

¹⁴ The CIE, Telstra's Price Premium - The premium paid by consumers for fixed and mobile services, November 2016.

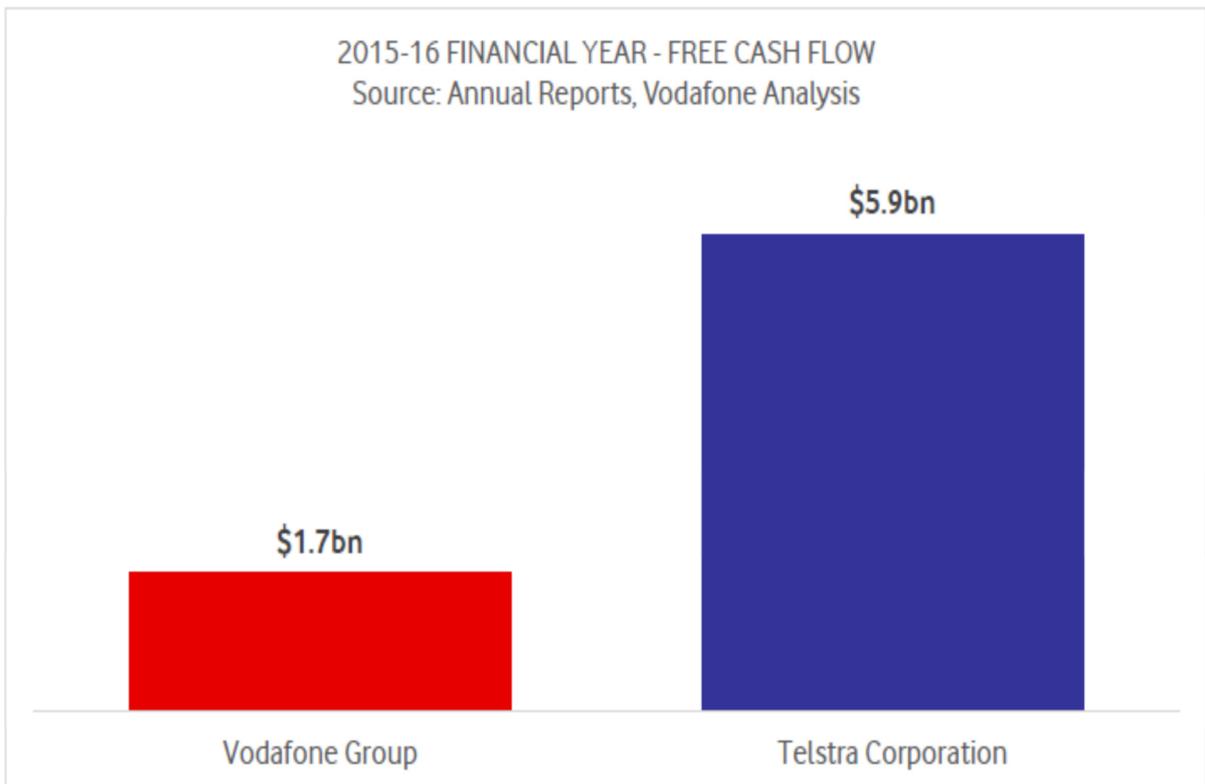
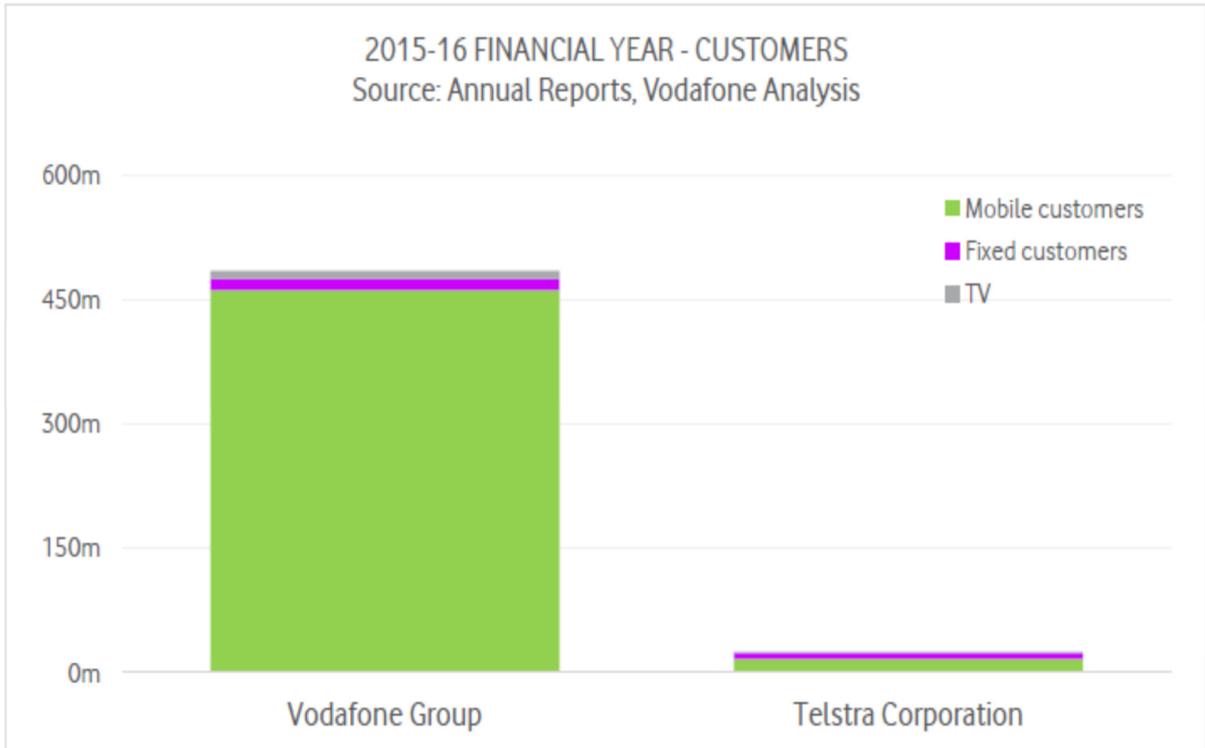
Q18.3 Evidence – excessive profitability of Telstra relative to global benchmarks

VHA has conducted a benchmarking analysis of the Australian telecommunications industry to demonstrate the extent of Telstra's leveraging of its market power to extract excessive profits from Australian consumers.

This analysis provides consistent evidence of Telstra's unusual excess profitability:

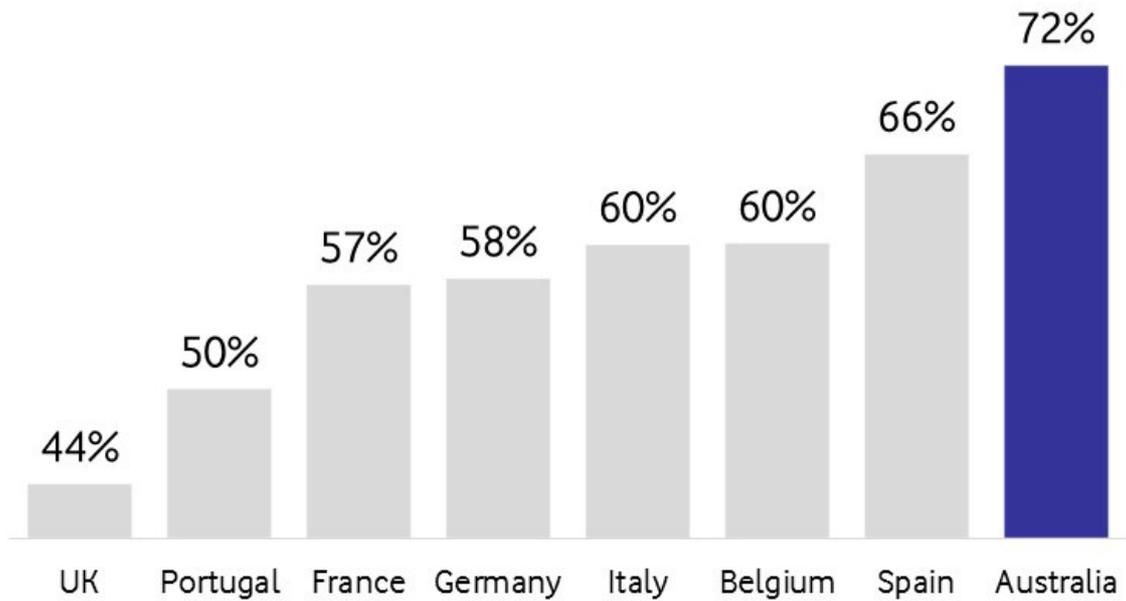
- Telstra's share of total telecommunications (fixed and mobile) industry Free Cash Flow was 93%, compared to 49% for the UK incumbent and 63-71% in Portugal, Belgium, France, Italy and Germany, The EBITDA per capita which Telstra is able to extract as a result of its enduring market power was \$443 per capita, nearly 3 times the profit per capita extracted by other incumbents (\$157-176 per capita in each of the UK, France, Germany, Spain and Italy Telstra's EBITDA per capita);
- For the 15/16 Financial Year, Telstra generated Free Cash Flow (FCF) of \$4.8bn from ~25.6m services (~17m mobile customers, ~7m fixed customers and a proportionate ~1.4m TV customers. This is nearly three times as large as the FCF generated by the entire Vodafone with 484.9m customers across 26 countries (~\$1.7bn). Telstra extracted FCF of ~\$188 per service, compared to Vodafone's \$4 per service.

The comparative levels of profitability of Telstra are demonstrated by the following charts:



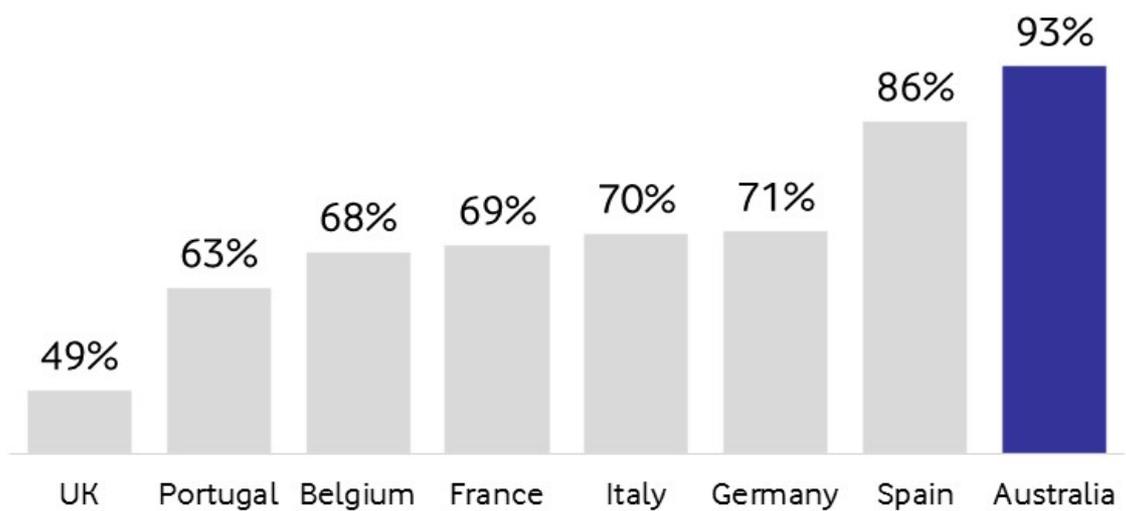
INCUMBENT SHARE OF TOTAL TELECOMS EBITDA (2014)

Source: Vodafone Group Analysis based on company reports



INCUMBENT SHARE OF TOTAL TELECOMS FREE CASH FLOW (2014)

Source: Vodafone Group Analysis based on company reports



Telecommunications expert Richard Feasey also makes a similar point in his independent report, highlighting that Telstra's high free cash flows are indicative of Telstra making excessive profits from its mobile network as a result of Telstra's market power.¹⁵

“In a competitive market, Telstra's higher prices would reflect its higher costs rather than its market power and would not translate into high profits. Thus, the extent of any consumer harm (and hence the benefit from a declaration which promotes more effective retail competition) is best assessed by reference to the extent to which Telstra is able to sustain supernormal profits over an extended period. I have not been asked to examine data which would allow me to answer this question, but it appears that Telstra's free cash flows may suggest that it is earning significant supernormal profits, and that a substantial proportion of these are likely to be attributable to its mobile operations.

If this is right, then a significant number of Australian consumers are paying above the competitive price for the mobile services that they receive from Telstra, despite the presence of competing networks. Consumers in metropolitan areas are paying too much because they are unable to switch to an alternative provider who adequately meets their needs. Consumers in regional Australia are then paying too much precisely because the consumers in metropolitan areas are paying too much and national averaging of prices does not protect them.”

Q18.4 Further evidence provided by VHA

Please refer to Part C of this submission.

Q19. Is the extent of competition for mobile services in regional areas likely to change in the future in the absence of declaration? Please provide reasons for your views.

VHA has set out a detailed analysis of the effect of competition in mobile markets in Section 4 of Part A of this competition.

VHA has set out a detailed 'future with and without' analysis in Section 8 of Part A of this submission.

To reduce the length of this submission, VHA does not repeat those submissions, but instead refers the ACCC to Part A of VHA's submission.

¹⁵ Richard Feasey, Issues arising in relation to the ACCC's domestic roaming declaration enquiry, November 2016, paragraph 70-71.

VHA's has highlighted that competition in regional areas is currently very soft and the competitive constraints on Telstra are not effective. In the absence of declaration of roaming, the competitive conditions will continue to worsen, consistent with the trend in recent years.

VHA also highlights in Part A that coverage-based competition is not effective where it is distorted by natural monopoly, resulting in a softening of competition and a weakening of competitive constraints on Telstra. Substitution from coverage-based competition to other forms of price and non-price competition will therefore deliver real improvements in the quality and intensity of competition and will properly restrain Telstra's market power, particularly in regional areas.

(e) Impact of declaration on competition

Q20. How would declaration affect competition in markets for wholesale mobile services?

VHA has set out an analysis of the impact of declaration on markets for wholesale mobile services in Section 3 of Part A of this submission.

Declaration of roaming will replicate the price and service outcomes that one would expect to see in a workably competitive market for the supply of wholesale mobile roaming services. [C-I-C].

In the duopoly areas, VHA considers that the declaration of roaming would lead to competition for the supply of wholesale mobile roaming services that would not otherwise exist:

- If both Optus and Telstra know they are required to supply wholesale mobile roaming services pursuant to the standard access obligations in Part XIC, they will no longer have any incentive to engage in strategic behavior to deny access to roaming services.
- On the contrary, the supply of roaming would be viewed as a contestable wholesale service that can generate wholesale revenue for Telstra Wholesale or Optus Wholesale, respectively. VHA would therefore expect to see competition between Telstra and Optus for the supply of roaming to VHA in the areas where their respective network footprints overlap.

In conclusion, declaration will not only promote competition in downstream markets, declaration will also promote competition between Telstra and Optus for the supply of roaming in those geographic areas where their respective mobile networks overlap. Declaration therefore has the potential to address imperfect competition in the wholesale roaming market itself.

[C-I-C]

**Q21. How would declaration affect competition for retail mobile services in regional areas and nationally?
Please provide reasons and any available evidence for your views.**

VHA has set out an analysis of the impact of declaration on the markets for retail mobile services in Section 4 of Part A of this submission. To reduce the length of this submission, VHA does not repeat those submissions, but instead refers the ACCC to Part A of VHA's submission.

Q21.1 Direct effects on competition in different time periods

VHA's has highlighted in Part A that declaration of roaming would directly promote short-, medium- and long-term competition in the markets for retail mobile services.

In the short-term, there will be:

- reduced coverage-based competition (although VHA has highlighted that such competition is ineffective, partly reliant on misinformation, and places little practical constraint on Telstra's market power);
- increased price competition in metropolitan and regional areas; and
- increased non-price competition based on other features, such as quality of service.

In the medium-term, there will be:

- increased non-price competition based on network quality and depth;
- increased non-price competition based on handsets and retail plans; and
- increased non-price competition based on innovative offerings.

In the long-term, there will be:

- increased long-term competitive symmetry to encourage sustainable competition;
- increased long-term sustainability of competition;
- increased facilities-based and infrastructure-based competition; and
- self-reinforcing positive feedback loops that magnify the above effects.

Each of these points is explained in detail in Part A of this submission.

Q21.2 Indirect effects on competition

VHA notes that declaration of roaming may promote competition in related markets, including the market for government subsidies in mobile telecommunications, potentially having positive indirect effects on competition in the markets for retail mobile services.

Q21.3 Further evidence provided by VHA

Please refer to Part C of this submission.

Q22. To what extent do consumers in regional Australia see Telstra as the most viable choice of service provider? If so, please provide an estimate of the proportion of such consumers and evidence to support your views.

In the Telstra monopoly areas, mobile subscribers have no choice but to use Telstra as Telstra is the only supplier of mobile coverage in those areas. The number of subscribers who live in those areas comprise 1% of the Australian population, hence around 250,000 mobile subscribers.

However, the coverage claims of the mobile carriers are not necessarily indicative of the consumption of mobile services by regional consumers. As identified in Part A of this submission, the proportion of regional consumers who are exposed to differences in coverage in their everyday lives is significantly greater.

The number of subscribers affected by coverage issues is therefore many times greater than 250,000. As identified below, VHA has estimated that around one third of the Australian population is practically captive to Telstra due to coverage issues, hence around 8.2 million mobile subscribers. VHA explains this conclusion below.

Q22.1 Impact is much broader than monopoly areas due to spillover effects

In Part A of this submission, VHA referred to the extended impact of Telstra's mobile coverage monopoly on the wider retail mobile markets as a 'spillover effect'. VHA identified four key transmission mechanisms:

- First, regional consumers are exposed to the impact of the natural monopoly over the course of each year in those circumstances where they may travel within regional Australia, including between regional centres. As such, they inherently prefer the MNO controlling the natural monopoly.

- Second, the impact of coverage on consumers has been emphasised and overstated by Telstra in its advertising in the context of its ‘coverage claim’. Telstra has sought to leverage its natural monopoly by pointing out that it is the only MNO able to provide coverage in the Telstra monopoly areas, even though such areas only directly affect 1% of the population. This emphasis on coverage has then become part of Telstra’s overall strategy of retail network differentiation and a feature of consumer choice.
- Third, because coverage has become part of Telstra’s overall strategy of network differentiation and has become overstated by a decade of intense advertising, the spillover effect associated with the natural monopoly has permeated throughout the mobile market in Australia. This means, for example, that a metropolitan consumer may value the Telstra network because of its control over the natural monopoly, even though that metropolitan consumer may never travel into the natural monopoly area.
- Fourth, Telstra has bundled its natural monopoly coverage (and its monopoly coverage more generally) with its contestable coverage. At the same time, Telstra has denied other MNOs from accessing the natural monopoly coverage. In this manner, Telstra has retained exclusivity in coverage in circumstances where it is not economically possible for any competitor to replicate that coverage Telstra has then marketed that exclusivity to subscribers.

VHA assumes that further transmission mechanisms may exist, including potential bundling of handsets, service plans, fixed services and the full range of other Telstra services.

Further detail is set out in Sections 1 and 2 of Part A of this submission.

Q22.2 Quantification of percentage of population likely to be affected

Any mobile consumers who value coverage are affected by the Telstra monopoly areas. Mobile consumers face a situation of imperfect information due to uncertainty over their future travel behaviour and difficulty in making detailed comparisons between the coverage charts of mobile networks to determine the extent to which they are affected by the coverage differences of the different networks. Therefore, mobile consumers that value coverage will default to the largest geographic network as the proxy for the network that is likely to deliver the best coverage, even though that network may not have the greatest depth or fewest black spots. Any consumers who value coverage will therefore select Telstra.

International telecommunications expert Richard Feasey explained consumer decision-making on coverage in his independent report as follows:¹⁶

“Consumer behaviour in other markets might inform our thinking. For example, if consumers valued coverage highly in specific areas but did not value it in others then we might, under competitive conditions, expect operators to offer products which reflected these preferences. For example, an operator might offer a cheaper tariff which provided coverage in certain, lower cost, parts of a country which certain consumers sought, but not allow access to other areas which they might never expect to visit. I have not seen such tariffs in other markets, which suggests to me that consumers tend to value ‘coverage’ in general or in the abstract, but do not otherwise discriminate between particular areas when selecting their carrier.

I therefore think it is reasonable to suppose that all coverage has equal or similar value for consumers and that they tend to assess networks by reference to the absolute quantity of coverage rather than making fine distinctions about different areas. ‘Value’ in this context is not measured simply or mainly by where consumers use the network or what they consume, but by the ‘option value’ or security of knowing that wherever they might wish to travel in future, the network they subscribe to gives them the best prospect of obtaining service when they want it. It also means that absolute differences in coverage – the precise number of km² – are likely to be less important than the ability to claim to be the ‘biggest’ or the ‘unequalled’ network. Again, if this is right, the additional 400km² which both Telstra and Optus would enjoy over Vodafone in the absence of roaming in those areas where the former companies already offer coverage might be every bit as important as the additional 1.4 million km² which Telstra enjoys over both Optus and Vodafone. At the least, there is no reason to suppose the competition benefits that might be obtained from Vodafone roaming in the duopoly area would be any less than those that might be obtained from Vodafone and

¹⁶ Richard Feasey, Issues arising in relation to the ACCC’s domestic roaming declaration enquiry, November 2016, paragraphs 21-22.

Optus roaming in the monopoly area. The competition benefits of roaming in both the duopoly and monopoly area will obviously then exceed those of roaming in either one or the other.”

Most regional consumers will value coverage very highly. This is demonstrated by the market share data in regional Australia set out in Part A of this submission and in Q15.5. Given that Telstra has coverage that is over double the next largest MNO, regional consumers are effectively captive to Telstra.

Telecommunications expert Richard Feasey concluded in relation to these spillover impacts in his independent report as follows:¹⁷

“I consider that competition in Australia’s retail mobile markets is ineffective as a result of Telstra’s refusal to supply roaming. A relatively small number of consumers in regional Australia have no choice of supplier at all, since Telstra is the only firm to offer them coverage. A much larger number of consumers in suburban and urban areas which appear to be competitive are also ‘captive’ to Telstra because they value network coverage which neither of Telstra’s rivals, Optus and Vodafone, is able to offer today. Both sets of ‘captive’ customers pay too much for their mobile services as a result. Another group which also values coverage simply cannot afford it at the prices charged by Telstra today.”

Richard Feasey attempted to quantify in his report the proportion of consumers captive to Telstra due to coverage issues. He reached the following conclusion of his independent report:¹⁸

“The proportion of the population in competitive areas who will not switch away from Telstra, even if offered significant pricing discounts, and who are therefore currently ‘captive’ to Telstra:

30-40% or 28-38% of the total Australian population, likely more by revenue.”

For the purposes of this submission, VHA has therefore assumed at least one third of the Australian population by number (and over half by revenue) are currently captive to Telstra due to [C-I-C]. This is a significant portion of the Australian population. The captive consumers will be predominantly regional consumers. Telstra’s extraordinarily high market share in regional areas confirms this.

¹⁷ Richard Feasey, Issues arising in relation to the ACCC’s domestic roaming declaration enquiry, November 2016, paragraph 5.

¹⁸ Richard Feasey, Issues arising in relation to the ACCC’s domestic roaming declaration enquiry, November 2016, paragraph 76.

Q22.3 Evidence – studies by GA Research and Empirica Research

VHA historically asked both GA Research¹⁹ and Empirica Research²⁰ to undertake a study of regional consumer attitudes. Both concluded that regional consumers value being able to choose their telecommunications service provider, but do not feel they necessarily have any choice.

Key findings from the Empirica Research report included:

- 59% of respondents agreed that mobiles will be more essential than fixed line in the next 5-10 years;
- 59% of respondents agreed that they would change providers if another provider of mobile services offered the same or better coverage as their existing provider;
- 80% of respondents agreed that competitive pricing is the most important aspect of a mobile provider; and
- 83% of respondents agreed that being able to choose their mobile provider is important.

Key findings of the GA Research report included:

- Mobile phones are generally considered a more essential service than fixed lines.
- Quality of customer service is the main driver of telecommunications brand perceptions, with negative views dominated by issues with overseas call centres.
- Regional participants feel they are not receiving optimal mobile phone coverage, especially compared with their metropolitan counterparts.
- Telstra is seen as the ‘devil you know’, offering better mobile coverage than other providers, but at a cost.
- Participants found it difficult to decouple coverage and choice. Coverage is more like a foundation which must be in place to enable choice and fair competition.

¹⁹ GA Research, Regional Community Attitudes Research, March 2013, report prepared for Vodafone.

²⁰ Empirica Research, Telecommunications in Regional Australia, 2014, report prepared for Vodafone.

- While participants know they have the option to sign up with other telco providers, due to coverage issues they do not feel they have a real choice. They also feel they have not experienced the improved services and lower costs that result from competition and choice.

VHA is happy to provide copies of these reports to the ACCC on a confidential basis if they would be of value.

Q22.4 Evidence – comments in Regional Telecommunications Reviews

Multiple public inquiries have concluded that an absence of choice in service providers is a challenge faced by regional consumers of telecommunications services.

Telstra's monopoly coverage in regional Australia (and greater geographic coverage overall) confers substantial market power on Telstra, particularly in regional and remote areas of Australia. The Regional Telecommunications Review in 2008 (Glasson Review) commented as follows (at page 137):

“However, in remote areas where there is terrestrial mobile phone coverage, it is more likely that there is only one carrier. This not only means people in these areas are denied choice of supplier, it also means that customers of businesses in these areas are unable to make and receive calls unless they purchase a service from that one carrier.

Finding 2.1.9: In areas where there is only one network supplier, the availability of roaming becomes more significant in providing choice of supply.

Finding 2.1.10: Travellers to regional areas who have a service from a provider that does not have coverage in that area cannot use their mobile phone despite their expectation and despite the existence of coverage provided by another network operator.”

VHA also notes the ACCC's own comments from its Annual Telecommunications Report released in April 2016:

“However, for many consumers in regional, rural and remote areas there are still issues in receiving communications services that meet their needs, as the choice of providers and service coverage are often limited.”

The higher prices paid by regional consumers relative to metropolitan services have been recognised in the regional telecommunications reviews as well. For example, in the Regional Telecommunications Review in 2008 (Glasson Review), the review report commented (at page 130):

“Regional areas also face higher prices for mobile data. This is because mobile data services from the only provider offering this service in regional areas are more expensive than mobile data

services available from other providers with networks that have a more limited geographic reach. The table below sets out some examples.”

“Finding 2.1.5: Mobile data service prices are effectively higher in regional Australia because in many areas the only provider offering services does so at a higher price than other providers in urban areas.”

The Glasson Review therefore highlighted that Telstra was the monopoly provider and could therefore charge a higher price for data than other mobile carriers. This conclusion confirms VHA’s earlier submission that the concept of a ‘uniform national price’ is misleading.

Q22.5 Evidence - judicial comment in litigation between the MNOs

In the legal proceedings commenced by Telstra against Optus in February 2014: *Telstra Corporation Ltd v SingTel Optus Pty Ltd* [2014] VSC 35, the court considered the target audience (or class of persons) whom were targeted by coverage-based advertising. The court commented (at [20]-[21]):

“Telstra identified the target audience or class of persons to whom the Advertisement is directed as members of the Australian public who are considering acquiring a mobile telephone service or considering changing the carrier who supplies the existing service (“the Class”). Optus took no issue with this approach. It is plain the persons to whom the Advertisement is directed would include at least those persons referred to by Telstra. I will proceed on this basis. Self-evidently, given the prevalence of mobile telephone users in the community, the Class would cover a large cross-section of the Australian population.

Telstra submitted that an ordinary or reasonable person within the Class “knows something about mobile telephones, makes and receives calls, knows that calls ‘drop out’ from time to time and knows that coverage is an important matter.”

Telstra gave evidence that an astounding 71% of consumers switching to Telstra do so for coverage reasons, thereby clearly illustrating the market power of Telstra derived from its natural monopoly in regional Australia (at [24]):

“One matter Telstra is able to establish is that coverage is an important consideration for a customer when she or he is deciding which provider to engage. The evidence, again uncontested and based on market research conducted from July to September 2013, demonstrates that the most important factor in customers deciding to switch to Telstra from another network was the network coverage of Telstra....”

Telstra’s own evidence therefore highlights the importance of coverage to consumers.

Q22.6 Further evidence provided by VHA

Please refer to Part C of this submission.

Q23. To what extent do consumers in regional areas benefit from competition in the national retail mobile services market? Please explain your response.

VHA has identified in Part A of this submission that the retail mobiles markets are best viewed as geographically differentiated by metropolitan and regional areas. VHA has highlighted that regional consumers experience markets with significantly less competition.

If the ACCC does not accept this submission, then the markets are, at the least, highly segmented by metropolitan and regional areas.

In the ACCC's Discussion Paper, the ACCC commented that it had submitted to the ACCC that the existence of a uniform national price in mobile markets in Australia may mean that any competition in metropolitan areas will 'set' this uniform national price. This price will then apply to regional areas as well. Accordingly, it had been submitted to the ACCC that regional Australia receives competitive mobile prices because of metropolitan price competition.

While superficially attractive, VHA considers that this model does not survive scrutiny. VHA makes some observations below.

Q23.1 Uniform national price hides significant regional price discrimination

The concept of a uniform national price is somewhat misleading. In practice, there can be differences in the value provided to consumers in different geographic areas. This is consistent with the outcome one would expect where difference areas are subject to different levels of competitive intensity. For example:

- **Mobile pricing is not uniform:** The concept of uniform national price is an artificial construct. There is no single uniform national price. Rather, mobile pricing involves a highly complex set of price points with all manner of optionality, including *handset* subsidies, data inclusions, and term commitments. The CIE highlighted the complexity of comparing pricing in its independent report for the purposes of this submission.
- **Price discrimination does occur:** As VHA has identified in Part A of this submission, and as identified by the findings of the Glasson Review identified above, regional price discrimination does occur. Such price discrimination is not normally overt, but involves discounting and targeted marketing. VHA has pointed to some evidence of this earlier in this

submission. Within this competitive context, there is ample scope for a mobile carrier such as Telstra to selectively and subtly target metropolitan consumers with better offerings in competitive areas.

- ***Non-price discrimination also occurs:*** As well as differences in pricing, differences in mobile offers can also involve differences in non-price features. VHA assumes that Telstra would generally provide greater value to metropolitan consumers when all non-price factors were taken into considerations. As far as VHA is aware, Telstra has no internal rule that it must give regional consumers the same identical value it gives to metropolitan consumers.

Q23.2 Telstra is not constrained by coverage-based competition

The price that is set in metropolitan areas is not necessarily a price that is set under fierce competitive constraints. Accordingly, there has remained scope for Telstra to set an artificially high price in metropolitan Australia, notwithstanding competition.

- ***Coverage-based competition is an insufficient competitive constraint:*** As identified above, Telstra has achieved a high price premium (well above competitive levels) by bundling its contestable and non-contestable coverage. Given Telstra's control over a natural monopoly comprising around half of the Australian coverage area, Telstra is not constrained by coverage-based competition. No other MNO can compete with Telstra on coverage.
- ***Metropolitan competition is fierce in some segments, weaker in others:*** In all segments of the market that focus on coverage-based competition, Telstra is not competitively constrained. As identified in Part A of this submission and above, Telstra has conflated coverage with quality in its advertising, thereby using its exclusive coverage to influence consumers far in excess of the utility of that coverage to consumers.
- ***Telstra is maintaining a price premium:*** Telstra has little effective constraint on its pricing given the absence of any coverage-based competitive restraint, so can set a revenue maximising price across both metropolitan and regional Australia. This means that the uniform national price is far higher than it would be in an effectively competitive market.
- ***Regional consumers are captive to Telstra:*** Consumers who seek Telstra's coverage are treated by Telstra as premium customers and charged Telstra's higher prices. Such customers would not be premium customers in a competitive market. As identified in response to the previous question, VHA assumes this may comprise around one third of the Australian population and much of the population in regional Australia.

- ***Metropolitan competition is between VHA and Optus:*** Given neither VHA nor Optus can compete with Telstra on coverage, the remaining two MNOs compete between themselves on price and other non-price features. Competition between Optus and VHA is particularly fierce and both firms consider the other to be their closest rival. Neither Optus nor VHA place an effective competitive constraint on Telstra, meaning that Telstra has market power to sustain its price premium.

Q23.3 Insufficient regional competition spills over into metropolitan competition

The directionality of the determination of national uniform pricing is not necessarily from metropolitan to regional, but is also from regional to metropolitan. As explained in Compass Lexecon’s independent expert report, the spillover effect from regional areas has caused a higher price in metropolitan areas than would normally be the case in a competitive market.

Compass Lexecon concludes in the context of a discussion on Telstra’s bundling of contestable and non-contestable coverage:²¹

“An important consequence of this effect is that the transmission mechanism is likely to consist, at least in part, of a transmission of higher prices in remote local natural monopolies into higher prices in regional centers and cities.

Moreover, the existence of a uniform national price may exacerbate this anti-competitive transmission mechanism of higher prices from remote to urban areas. It may be argued in other circumstances that uniform national pricing can transmit competitive pricing from urban to remote areas. However, in this instance, it is more likely that a uniform national price will transmit non-competitive pricing from natural monopoly areas into potentially competitive areas – this is the anti-competitive “leveraging of market power” consequence of this bundling effect. The horizontal bundling mechanism, with its accepted foundations in the economic literature and acceptance in legal precedent, would suggest that the transmission mechanism is most likely to be from remote natural monopolies into competitive markets, with the consequence of higher prices in competitive markets.

In my opinion, the likelihood of this effect taking place implies that some, or all, of Telstra’s “price premium” may in fact be attributable to a softening of competition for Telstra’s product through a horizontal bundling effect. There are substantial consumer groups who require regional coverage in a mixture of contestable areas and natural monopoly areas. For these consumer groups, the bundle of different regional coverage that Telstra can offer is essentially the only offering they can choose – Telstra therefore has a high degree of market

²¹ Dr Derek Ritzmann, Domestic Mobile Roaming Declaration Inquiry Expert Report, 1 December 2016, page 22.

power over these consumers, even if their primary location is in an urban area. These consumers, through the horizontal bundling mechanism and a uniform national price, are the transmission mechanism for higher-than-competitive prices from natural monopoly areas into potentially competitive areas.”

Telecommunications expert Richard Feasey also independently reached similar conclusions and commented:²²

“I consider that competition in Australia’s retail mobile markets is ineffective as a result of Telstra’s refusal to supply roaming. A relatively small number of consumers in regional Australia have no choice of supplier at all, since Telstra is the only firm to offer them coverage. A much larger number of consumers in suburban and urban areas which appear to be competitive are also ‘captive’ to Telstra because they value network coverage which neither of Telstra’s rivals, Optus and Vodafone, is able to offer today. Both sets of ‘captive’ customers pay too much for their mobile services as a result. Another group which also values coverage simply cannot afford it at the prices charged by Telstra today.”

(f) Importance of coverage to consumer decision-making

Q24. What are the key factors that influence consumer choice of service provider in: (a) metropolitan areas? (b) regional areas?

VHA has already responded to this question in the context of the ACCC’s earlier questions above.

Generally, the key drivers of consumer preference when choosing a mobile service provider are:

- the service provider’s network coverage reach;
- the service provider’s network quality (i.e.: data speeds, congestion levels, mobile technology, etc);
- price of service;
- the amount of data and call allowances; and
- handset subsidies (post-paid only).

²² Richard Feasey, Issues arising in relation to the ACCC’s domestic roaming declaration enquiry, November 2016, paragraph 5.

Consumer choice of service provider in regional areas is much more heavily influenced by coverage-based factors than consumer choice in metropolitan areas. VHA has considered the issue of coverage extensively in Sections 1 and 2 of Part A of this submission.

Q25. How important is geographic coverage, as distinct from population coverage, to consumers living in metropolitan areas?

VHA believes it is not necessarily helpful to differentiate between ‘population coverage’ and ‘geographic coverage’. They are both different measures of the exact same level of actual coverage.

However, there is a significant lack of understanding by mobile consumers as to what population coverage means in geographic coverage terms. VHA submits that consumers therefore tend to take a holistic view of coverage. This is evidenced by Telstra’s advertising and associated litigation.

Q25.1 Evidence – judicial comment on population coverage and geographic coverage

In the legal proceedings commenced by Telstra against Optus in February 2014: *Telstra Corporation Ltd v SingTel Optus Pty Ltd* [2014] VSC 35,²³ Telstra adopted a ‘generic meaning’ of coverage that included both features (at [17]):

“In relation to the Third Representation, Telstra submitted that “coverage” as pleaded should be understood to encompass the “generic meaning” of coverage, which includes both Population Coverage and Geographic Coverage”.

As part of that decision, the Supreme Court of Victoria was required to consider the view of the reasonable person on issues of coverage. The Supreme Court concluded, after considering all the evidence, that population coverage was the key differentiating feature of retail mobile market competition that was well known by Australian consumers. The Supreme Court commented (at [70] – [71]):

“*First*, I am far from convinced that people would know what proportion of Australia would be covered by the respective mobile networks.

I accept Optus’ submission that the ordinary or reasonable person in the Class is likely to know large parts of Australia are unpopulated and consist of deserts, mountains and other terrain that is not readily accessible to Australians living in cities and towns. Also, it was common ground that from time to time mobile telephone users are unable to get a signal

²³ A copy can be found online at <https://jade.io/article/314126>

when they travel outside (or, occasionally, even inside) the major cities and towns. However, I seriously doubt whether an ordinary or reasonable person in the Class, possessing such knowledge and encountering such experiences, would ordinarily turn their minds as to what percentage of the entire Australian land mass would be without any coverage.”

Optus also submitted evidence that, while coverage has generally been based on population coverage, Telstra has sought to conflate population and geographic coverage by including maps with its advertising and referring to the geographic area coverage in absolute (not percentage) terms (at [83]):

“Optus submitted that consumers had been “conditioned” to understand a reference to percentages, in terms of the reach of the coverage of a mobile network, as a reference to Population Coverage, rather than Geographic Coverage. Optus emphasised that in all Telstra’s publications concerning coverage it referred to Population Coverage in percentage terms, but only referred to Geographic Coverage in terms of area in square kilometres. Optus also focussed on the fact that Telstra had previously used a map of Australia when publishing information concerning Population Coverage.”

In summary, the comments of the Supreme Court evidence that there is a significant lack of understanding by mobile consumers as to what population coverage means in geographic coverage terms. In practical, population coverage and geographic area coverage have tended to be conflated in the mind of Australian consumers.

Q25.2 Evidence – focus of Australian advertising on population coverage

[C-I-C]

As canvased in Q25.1 above, in the case *Telstra Corporation, Ltd v SingTel Optus Pty Ltd* [2014] VSC 35, Optus submitted evidence that demonstrated that while advertising based on coverage has generally been based on population coverage, Telstra has reinforced this regarding its coverage areas in square kilometres and associated maps, thereby conflating population and geographic coverage.

Again, what the litigation between Telstra and Optus demonstrates is that consumers are not generally well informed on coverage issues, but rather make impressionistic and holistic decisions.

Q26. How important is geographic coverage to a mobile service provider’s ability to compete in the national market for mobile services?

VHA has set out an analysis of the importance of geographic coverage to an MNO's ability to compete in Section 1, 2 and 4 of Part A of this submission. VHA does not repeat those submissions, but instead refers the ACCC to Part A of this submission.

VHA has highlighted in Part A that the rival MNOs to Telstra have no meaningful ability to compete with Telstra in the markets for retail mobile services to the extent that such competition involves coverage-based competition. Coverage-based competition is not effective where it is distorted by natural monopoly, resulting in a softening of competition and a weakening of competitive constraints on Telstra.

VHA has also highlighted in Part A that, because coverage-based competition places no effectively competitive constraint on Telstra, the removal of coverage-based competition will not materially adversely affect the competitive intensity of competition in Australia's mobiles markets.

As identified in Part A, substitution from coverage-based competition to other forms of competition will promote competition overall. Substitution to other forms of competition will deliver real improvements in the quality and intensity of competition and will properly restrain Telstra's market power, thereby promoting competition.

Again, VHA agrees that an MNO should be able to differentiate itself based on non-price factors, including coverage. However, VHA does not agree that an MNO should be able to capture a natural monopoly, [C-I-C], then bundle that natural monopoly with its retail offering in such a way that no other MNO can compete.

Declaration of roaming would facilitate the unbundling of the natural monopoly coverage from contestable coverage. VHA, for example, would can offer its subscribers the option of adding roaming to VHA's existing coverage. By doing so, VHA would have the ability to compete with Telstra on a level playing field, being a competitive playing field that is not distorted by Telstra's leveraging of an exclusive and State-subsidised natural monopoly.

Q27. Does the level of geographic coverage on a network impact a provider's ability to compete for business customers to a greater extent than other customers? Please provide reasons for your views.

As a general proposition, business customers value geographic coverage and depth of network more than residential customers and are less price sensitive. From a network perspective, whether traffic is from a business customer or a non-business customer is indistinguishable.

VHA submits that for business customers that value regional coverage (e.g. firms that have employees that travel regularly), those business customers may see Telstra as the only suitable provider of mobile services. For business customers that provide goods and services locally, or those

businesses whose employees are not required to travel regularly, they may consider a wider pool of mobile service providers.

Business customers are more inclined to purchase a bundle of telecommunication services, for example broadband, fixed and mobile services. In such circumstances those consumers make purchasing decisions based on the value of the bundle rather than the value of components.

Accordingly, Telstra has the practical ability (and certainly the incentive and willingness) to leverage its mobile coverage well beyond the mobile market and into other telecommunications markets in Australia. Given the limited time provided by the ACCC for VHA to prepare this submission, VHA has not had sufficient time to gather any evidence of such bundling.

VHA assumes that the ACCC may be better placed to identify such evidence from the various information provided by Telstra to the ACCC. Numerous submissions have been made to the ACCC over the years regarding the anti-competitive effects of Telstra bundling. Anti-competitive concerns are likely to arise where Telstra has market power in the supply of at least one service in the bundle.

Q28. How is declaration of a mobile roaming service likely to benefit consumers in regional areas and more generally? Is it likely to disadvantage consumers or any groups of consumers in any way?

VHA has set out an analysis of the positive impact on consumers of the declaration of roaming in Section 7 of Part A of this submission, as well as in VHA's conclusions for each of Sections 1 to 6 of Part A. To reduce the length of this submission, VHA does not repeat those submissions, but instead refers the ACCC to Part A of this submission.

Q28.1 Declaration will deliver very substantial and real consumer benefits

Based on the analysis undertaken for the purposes of this submission by VHA and a number of independent experts, VHA submits that the potential welfare gains to mobile end-users are likely to be very substantial indeed.

As identified earlier in this submission, VHA commissioned an independent report by The CIE. This report concluded that the effect of Telstra's higher pricing was to generate a total amount of \$1.4 billion extra paid for Telstra mobile phone services per annum. VHA considers that this is the upper bound of the potential welfare gains to consumers. Therefore, declaration has the potential to deliver up to \$1.4 billion per annum in welfare gains to Australian consumers.

Some of that \$1.4 billion will constitute legitimate price differentiation by Telstra by means other than leveraging of its monopoly coverage. The challenge is therefore to un-entangle the monopoly rent component from Telstra's legitimate competitive premium.

Faced with this challenge, VHA asked telecommunications expert Richard Feasey to consider the following question:

“How could the ACCC assess the competitive (and hence consumer) benefits from declaring a domestic roaming service?”

Richard Feasey’s detailed analysis of these issues is set out in his independent report. Richard Feasey relevantly comments:²⁴

“The consumer benefits that arise from such a declaration are difficult to quantify with precision. It is clear that a relatively small proportion of the total population – perhaps 2-3% - who currently have no choice of network provider would benefit from having such a choice. But they, and everybody else, benefit far more if competition in the metropolitan areas drives Telstra’s nationally averaged prices down to more efficient levels. That will happen if Vodafone and Optus (and the MVNOS which they support) are able to offer a service that is broadly equivalent to that offered by Telstra to all of those consumers who value network coverage but must rely on Telstra today. That amounts to about a third of the country’s population. In addition, consumers who cannot afford greater network coverage at the prices which Telstra charges today (and who therefore subscribe to Vodafone or Optus instead) may be able to afford greater coverage under more competitive conditions.”

Richard Feasey also relevantly comments, following analysis of the different classes of consumers and the value they respectively allocate to coverage:²⁵

“If this is right, Telstra would appear to have a ‘captive’ group of customers for whom it is currently the only credible provider who might represent about a third of the entire population and likely more of the revenues and profits. Importantly, the overwhelming majority of these consumers do not reside in areas where Telstra holds a monopoly network position, but in areas where there appears to be network ‘competition’. Despite this, it appears that they are currently paying prices that are substantially above the competitive level. Thus, we might reasonably expect that at least a third of the Australian population would benefit from a domestic roaming declaration, even if the rest of the population are willing and able to trade off coverage for lower prices, or attach no value to Telstra’s coverage.”

Assuming that this third of the population are already captive to Telstra (and up to half by revenue), and given Telstra’s market shares in regional Australia, VHA speculates that roughly half of Telstra’s

²⁴ Richard Feasey, Issues arising in relation to the ACCC’s domestic roaming declaration enquiry, November 2016, paragraph 7.

²⁵ Richard Feasey, Issues arising in relation to the ACCC’s domestic roaming declaration enquiry, November 2016, paragraph 77.

mobile customer base by revenue would become contestable in the presence of declaration. That is, a significant number of consumers will benefit as a direct result of declaration of roaming.

While VHA is not able to speculate as to how much of the \$1.4 billion per annum could be competed away because of roaming over time, it seems clear from Richard Feasey's analysis that the magnitude of the potential welfare gains to Australian consumer could be a very high indeed.

This conclusion is confirmed by VHA's analysis of Telstra's profitability as a mobile operator in relation to those competitive markets in which VHA operates. Telstra is one of the most profitable mobile operators in the world. Telstra's profits above other mobile operators are consistent with the \$1.4 billion per annum figure. VHA's expectation is that if Telstra were subjected to effective competition, much of this excess profit would disappear over time, delivering substantial benefits to Australian consumers.

(g) Competitive dynamics

Q29. Is there potential for a new MNO to enter the mobile market in Australia? If so, to what extent would declaration facilitate their ability to enter and compete in the mobile market?

The ACCC itself considered the issue of market entry in 2009 in the context of its consideration of the merger of VHA and Hutchison. The ACCC commented at paragraph 74 of its Public Competition Assessment (after undertaking a detailed analysis):

“In the mobile telephony segment of the retail market, the ACCC found that the proposed merger would result in the aggregation of two of the four competitors where:

- concentration will increase in an already highly concentrated segment;
- there is no prospect of entry by an MNO on the scale and scope necessary to constrain existing MNOs;
- MVNOs and resellers would not pose a strong competitive constraint on existing MNO.”

The merger of Hutchison and VHA occurred in 2009 largely because of the difficulty both operators faced in making network investments as MNOs to the level necessary to compete with Telstra. The ACCC's Statement of Issues illustrates that a 'quality gap' in network investment is not self-correcting, but rather leads to an increasing and compounding competitive disadvantage over time. A market entrant in Australia not only needs to jump quickly to a level comparable with the existing MNOs, but then needs to sustain the investment needed to survive at that level.

VHA is the Australian subsidiary of one of the largest mobile operators in the world. Even VHA has been struggling to make any headway at all against Telstra in regional Australia. If the second largest mobile operator in the world cannot make headway against Telstra, VHA expresses scepticism that any other market entrant could do so.

Q29.2 Declaration does increase the scope for market entry, but the economics still favour MVNOs

Declaration of a roaming service could, in theory, provide greater scope for a new MNO to enter the Australian market.

However, any market entry is most likely to occur by way of MVNO, as the necessary level of coverage would be achieved by way of resale rather than roaming. MVNO arrangements are sufficiently flexible that the future MNO could progressively invest in building out a network, then gradually morph its MVNO arrangement into a roaming arrangement, then replace its roaming arrangement with a network build where it was economic to do so. MVNO arrangements would be bespoke to the operator, but would be commercially concluded.

VHA believes that the benefit of a roaming declaration is that a market entrant MNO could more easily transition from an MVNO arrangement to a roaming arrangement over time. In turn, this would place a competitive constraint on the host MNO and may led to more reasonable commercial terms in relation to the MVNO arrangement itself.

Q30. How may the scope of the declared service (such as geographic scope and technologies to be included) affect the extent to which declaration of a mobile roaming service may promote competition in the relevant markets?

VHA has set out an analysis of the service description in Section 7 of Part A of this submission, including an analysis of the geographic and technological scope of the service description. To reduce the length of this submission, VHA does not repeat those submissions, but instead refers the ACCC to Part A of this submission.

Q30.1 Geographic scope should be those areas with less than 3 mobile networks

VHA confirms that it would be technically possible to limit the declaration of a roaming service to some parts of regional Australia.

VHA considers that the service description should not include metropolitan areas, given the existence of three MNOs there should be sufficiently competitive to deliver commercial outcomes for any potential market entrant and given that no MNO is currently seeking roaming in the metropolitan areas.

VHA has identified in its main submission why declaration should not be limited to the natural monopoly areas by considering the implications of declaration for each of the different coverage zones. Rather than repeating that analysis, VHA refers the ACCC to Part A of this submission.

In relation to the duopoly areas in particular, VHA considers that there is a very high risk of strategic behaviour in the supply of wholesale roaming services. Accordingly, declaration should not just apply to the monopoly areas, but also the duopoly areas.

For the purposes of this submission, VHA requested international telecommunications expert Richard Feasey to provide an independent report addressing the following issue, directed at the duopoly areas:

“What could be the regulatory basis for the ACCC declaring a domestic roaming service which encompassed areas where both Telstra and Optus may currently have coverage (or where Telstra and Vodafone or Optus and Vodafone might do so), as well as in areas where there is only a single, monopoly network provider, generally Telstra?”

Richard Feasey’s detailed independent report is set out in Part D of VHA’s submission. Richard Feasey concluded:²⁶

“A declaration which required Telstra to provide domestic roaming on its monopoly network only (i.e. in those areas where only Telstra provides coverage today) would not alleviate these concerns. Telstra might face more effective competition from Optus, but Vodafone would still not be an effective competitor since consumers will not accept coverage in some areas but not others. Knowing this, Telstra would have strong incentives to withhold the supply of roaming in undeclared duopoly areas (i.e. where both it and Optus provide coverage, but Vodafone does not) and Optus would similar incentives. It is important that the ACCC recognises this complementarity between the supply of domestic roaming in the monopoly areas and supply in duopoly areas, and that the scope of the declaration encompasses both.”

Q30.2 Technological scope should be based on equivalence of retail offerings

VHA has explained in its response to ACCC Q42 below that the technological scope of the declared service should be determined by a concept of equivalence to retail mobile offerings. Please see VHA’s response to ACCC Q 42 below.

²⁶ Richard Feasey, Issues arising in relation to the ACCC’s domestic roaming declaration enquiry, November 2016, paragraph 6.

3. Questions on any-to-any connectivity

(a) Achievement of any-to-any connectivity

Q31. To what extent would declaration of a mobile roaming service promote the achievement of any-to-any connectivity in relation to carriage services that involve communications between end-users?

VHA has set out a detailed submission on the importance of any-to-any connectivity in section 5 of Part A of this submission. To reduce the length of this submission, VHA does not repeat that submission, but instead refers the ACCC to section 5 of Part A of this submission.

In the declaration inquiry in 2004, the ACCC concluded that the supply of roaming would achieve any-to-any connectivity. While market circumstances have changed, the ACCC's analysis remains correct. The ACCC's conclusion from 2004 remains equally applicable today.

Any-to-any connectivity is particularly important to regional Australia. In the absence of declaration, non-Telstra end-users are denied the ability to communicate when they are in the Telstra monopoly areas. This has major adverse economic and social implications.

The various Regional Telecommunications Reviews have repeatedly highlighted the critical importance of mobile telephony services to end-users living in remote areas of Australia. Mobile services are fundamental to their socio-economic development, including for education, health and safety, families and communities, and business.

Pursuant to government regional policies, Telstra has received some \$2 billion in government and industry subsidies over the last decade to deploy mobile services in regional Australia. Telstra is [C-I-C], thereby free-riding on Australian taxpayers for Telstra's own commercial gain.

Some regional end-users may not be willing or able to pay the price premium Telstra demands, and therefore may undersubscribe to mobile services which will adversely affect the statutory criteria of achieving any-to-any connectivity. In addition, while social justice considerations are not necessarily part of the ACCC's analysis, social justice is an important reason why the promoting of competition by declaration in regional areas is imperative.

4. Questions on efficient use and investment

(a) Natural monopoly characteristics

Q32. Do mobile networks in regional Australia exhibit natural monopoly characteristics? Please provide reasons to support your view. If so, what are the implications of this for the assessment of the effect of declaration on the efficient use of, and investment in, infrastructure?

VHA has set out a detailed analysis of the natural monopoly characteristics of mobile networks in regional Australia in sections 1 to 4 of Part A of this submission. To reduce the length of this submission, VHA does not repeat those submissions, but instead refers the ACCC to Part A of VHA's submission.

Q32.1 Independent expert report by Dr Derek Ritzmann, Economist, Compass Lexecon

Given the critical importance of this issue to the declaration inquiry, VHA requested leading global economics consultancy Compass Lexecon (via Dr Derek Ritzmann, previously a principal economist at the ACCC) to independently advise on the following questions under the conditions set out for expert witnesses by the Federal Court Rules:

“Is the supply of mobile telecoms services in regional Australia subject to a natural monopoly?”

If so:

- (1) what are the salient features (including geographic scope) of this natural monopoly?
- (2) are the natural monopoly areas contestable in the absence of regulation?
- (3) what are the key implications for efficient investment in, and use of, regional mobile infrastructure?”

Compass Lexecon has reached the following independent conclusions:²⁷

“I conclude that the supply of mobile telecommunications in regional Australia is likely to be a natural monopoly in those areas with thin populations spread over wide areas. This

²⁷ Dr Derek Ritzmann, Domestic Mobile Roaming Declaration Inquiry Expert Report, 1 December 2016, page 4.

conclusion is based on my examination of the supply costs and demand profiles for mobile telecommunications services in representative regional areas of Australia. More broadly, there is likely to be a strong general relationship between the economic viability of duplication of those facilities in a geographic area and the population density of that area. This means that, in addition to the natural monopoly areas, there are also areas where the duplication of facilities is theoretically feasible but where infrastructure-based entry is unlikely to be economic (and therefore unlikely to emerge in practice); this is due to the high sunk fixed costs of entry, network effects, and the requirement to capture large market share for viability which give rise to high risks of entry. Infrastructure-based competition is unlikely to emerge in these natural monopoly and non-contestable areas.

Moreover, there are likely to be competition spillover effects from the natural monopoly and non-contestable areas into the potentially competitive, genuinely contestable areas. Customers who require regional coverage must choose a provider who can supply coverage in the entire “bundle” of regions. The consequent horizontal bundling or tying effect helps Telstra to leverage its market power from the natural monopoly and non-contestable areas into the contestable areas. This bundling mechanism for leveraging of market power, well recognized in the literature, softens competition in the contestable areas, including likely in urban areas. Telstra’s uniform national price acts as a transmission mechanism to exacerbate this effect. An enhancement of competition in the natural monopoly areas would therefore also likely enhance competition in the competitive areas.

Mandated access to roaming would likely encourage the efficient use of, and investment in, infrastructure in the natural monopoly areas and in the other non-contestable areas. In the natural monopoly areas, efficient use of the facilities would be encouraged by mandating the use of the facilities across the entire demand, in accordance with commonly accepted natural monopoly concepts. In the areas that are not natural monopolies but are in practice non-contestable absent regulation, mandated access would encourage the efficient use of facilities in the short-term before infrastructure-based competition is viable, and would encourage the efficient investment in infrastructure in the long-term by facilitating the long-term investment in competing infrastructure. Efficient incentives for the access provider can be maintained through appropriate wholesale access pricing, and other targeted measures such as focused access holidays for certain new facilities, in the hands of an experienced regulator taking into account the appropriate incentives considerations.”

The analysis behind these conclusions is set out in the Compass Lexecon report in Part D of this submission.

Q32.2 Evidence - Lessons from the United States experience

As the ACCC will be aware, in April 2010, the Federal Communications Commission (FCC) in the United States undertook a re-examination of the regulated roaming arrangements in the United States. Because of that reconsideration, the FCC extended mandated voice roaming to include mandated data roaming. The FCC also removed an exemption for certain types of roaming, thereby extending the scope of mandated roaming in the United States.

Relevantly the FCC considered the extent to which mobile networks could be economically replicated. The FCC concluded (at paragraph 23):²⁸

“Another reason for eliminating the home roaming exclusion is that it does not adequately account for the fact that building another network may be economically infeasible or unrealistic in some geographic portions of licensed service areas. We find that, in some areas of the country with very low population densities, it is simply uneconomic for several carriers to build out.”

The conclusions by the FCC in the United States support the conclusions of Compass Lexecon identified above.

Q33. Are there barriers and challenges to extending a mobile network in metropolitan and regional areas of Australia and how significant are they?

VHA has set out a detailed analysis of the barriers and challenges in extending a mobile network in metropolitan and regional areas of Australia in Sections 1 to 4 of Part A of this submission. To reduce the length of this submission, VHA does not repeat those submissions, but instead refers the ACCC to Part A of VHA’s submission.

VHA has identified in Part A that the deployment of mobile networks in Australia is subject to very high barriers to entry in both metropolitan and regional Australia. VHA has also identified in its response to ACCC Q29 above that further market entry by another MNO is highly unlikely.

As detailed analysis of these issues is also undertaken in the independent expert report from Compass Lexecon as set out in Part D of this submission. A summary of Compass Lexecon’s conclusions is set out in the response to ACCC Q31 above.

²⁸ See https://apps.fcc.gov/edocs_public/attachmatch/FCC-10-59A1.pdf

Q32.1 Evidence - ACCC's previous conclusions on barriers to entry

The ACCC previously considered the level of barriers to entry in relation to mobile network competition in its Final Decision for the Domestic Mobile Terminating Access Declaration Inquiry in June 2014. The ACCC concluded:

“The ACCC considers that the mobile services market is, and is likely to remain, relatively concentrated due to the limited number of MNOs and high barriers to entry”

“The ACCC considers that there are significant barriers to entering the mobile services market as an MNO. This is because the cost of investing in essential mobile infrastructure, such as base stations, and other assets, such as radio spectrum, can be prohibitively high”

“A service provider may enter the market as an MVNO, which resells services acquired from an MNO. However, an MVNO's ability to make retail offering is highly dependent on the terms of the wholesale agreement it has with an MNO. This means that the potential for an MVNO to expand and compete with MNOs is limited.”

Q33.2 Evidence - the Canadian experience

The ACCC's conclusions in June 2014 and VHA's various submissions in Part A are consistent with the conclusions of the CRTC in the Canadian context, which VHA notes has similar but still less extreme geographic challenges compared to Australia:²⁹

“The presence of various smaller wireless carriers demonstrates that wholesale network access facilities are duplicable on a regional basis. However, to date, none of these smaller wireless carriers have been able to duplicate the scale and coverage of the national wireless carriers' networks. While some smaller wireless carriers have recently been able to expand their spectrum holdings, it is unlikely that they will be able to duplicate the scale and coverage of the national wireless carriers' networks in the short to medium term. Also, the Commission considers that an MVNO would not be able to provision its own facilities to duplicate the scale and coverage of the national wireless carriers' networks.

A significant part of regional Australia is also not contestable currently due to a range of factors including the high variations in population density, Telstra's dominance in regional areas, and the inability of VHA to compete for consumers means that the barriers to extending VHA's network footprint in regional areas are significant.

²⁹ CRTC, Review of wholesale mobile wireless services, CRTC 2014-76, 5 May 2015, paragraph 107.

Declaration of domestic roaming will lower those barriers and encourage facilities-based competition in the long term. For Telstra, its incentives to extend mobile network in regional Australia would not change with or without the declaration of roaming. For VHA, declaration will allow VHA to acquire market share in regional Australia and allow it to make incremental investments in net mobile sites in regional Australia.

Q33.3 Evidence - the European experience

The ACCC's conclusions in June 2014 and VHA's various submissions in Part A are also consistent with the recent conclusions of the European Commission in its very recent consideration of the proposed merger of Hutchison 3G UK and Telefonica UK in May 2016. The European Commission concluded (at paragraph 1798):³⁰

“The Commission considers that one has to distinguish between market entry as a non-MNO or as a MNO, when assessing the barriers to entry in the market for mobile communication services in the United Kingdom. While barriers to entry as a non-MNO appear to be lower, barriers to entry as an MNO are very high, given the major investment required.

This view is supported by the results of the market investigation. First, respondents to the market investigation explained that entry as an MNO is very difficult. This requires significant investment and time. As one respondent explained, there are a number of elements in which a new entrant would need to invest into: acquisition of spectrum, construction of an initial greenfield radio access network with national or near to national coverage, establishing a backbone, core network and IT environment for the networks, establishing marketing, customer service and support and implementing interfaces for mobile number portability, legal interception, data retention and information services. It is estimated that such investments would require several billion pounds.

Second, respondents indicated that they do not expect any new MNO entrant in the near future.

In more detail, the Commission notes that a new MNO entrant would need to obtain access to spectrum of the right quantity and nature in order to be able to deliver national services. For example, in Ofcom's competition assessment for the 4G auction in 2012 Ofcom considered that, to be a credible competitor at that time, a new entrant would need, at a minimum, 60-100 MHz of spectrum (depending on the composition by frequency band). Such spectrum is scarce and expensive. Access to sub 1 GHz spectrum may be especially

³⁰ Case M.7612 - HUTCHISON 3G UK / TELEFONICA UK).

important for a new entrant as part of its spectrum portfolio to be able to deploy a national network quickly and without excessive cost.

The new entrant would build out its radio access network with national coverage, which involves significant sunk costs. Acquiring access to new sites is a lengthy and complex process because of the existence of a limited number of suitable locations for optimised outdoor coverage, the need for negotiations with landlords, potential planning requirements, potential works to host the network equipment and site engineering for interference management. While network sharing arrangements may reduce such costs, the entrant would still have to make a significant investment.

Moreover, it may be difficult for a new entrant to be able to negotiate a network sharing agreement with an established operator, as the established MNOs would have little incentive to facilitate the entry of a new competitor. A new entrant would probably also need a national roaming agreement with an existing operator while it builds its network, and again existing MNOs may have little incentive to provide contract with it.

In addition, the ability to build a customer base, typically involving a network of stores and investments in customer acquisition. A new entrant would have to win customers in a mature market which might involve significant costs to develop a brand and a retail presence.

The Commission therefore considers that the necessary investments and time required to enter as an MNO constitute a serious barrier to entry. Furthermore, any new entrant would have to start its network operations despite the competitive pressure exercised by the three established MNOs that already benefit from existing network infrastructure. In light of the above, the Commission preliminarily considers that the entry of an MNO in the next few years is unlikely.”

VHA considers that these conclusions of the European Commission in relation to the United Kingdom apply equally in Australia.

Q34. What is the extent of the first mover advantage when extending into regional Australia? Has Telstra’s position as the incumbent provider (for both fixed and mobile services) provided it with advantages in building a mobile network in regional areas? Please provide reasons and evidence to support your views.

VHA identified the nature of Telstra’s first mover advantage in regional areas of Australia in sections 1 and 2 of Part A of this submission. To reduce the length of this submission, VHA does not repeat those submissions, but instead refers the ACCC to Part A of this submission.

Q34.1 Telstra's position is unassailable as it will have a continual first mover advantage

Telstra's advantage stems from a history of government ownership and investment in assets that were non-commercial and included large cross-subsidies from urban to regional areas. Telstra inherited an extensive taxpayer-funded core and transmission network. Since its privatisation, it has also received substantial direct subsidies for its mobile network, subsidies from NBN payments and ongoing subsidies through the USO.

The USO subsidies have a particularly pernicious effect on competition. A large portion of the funding for the USO is raised through a levy on Telstra's competitors – that is, Telstra's competitors are taxed enabling Telstra to socialise the cost of its infrastructure while privatising the “supernormal” benefits it reaps from that infrastructure.

Subsidies aside, the consequences of first mover advantage are profound:

- Telstra has captured economies of scale, scope and density in its mobile networks in rural and regional areas to a greater degree than competitors.
- Governments have reinforced this initial dominance by awarding funding to Telstra to further extend and deepen its network coverage.

Telstra's ability to raise the price of upstream inputs and therefore barriers to entry for competitors (for example through high regional transmission pricing) have further exacerbated these dynamics. Regulation has been largely ineffective in addressing the advantages of Telstra in either its transmission networks, or through enforcing policies to extinguish or mitigate coverage advantages.

While the ACCC has now reduced the default price of regional transmission by up to 78 per cent, its decision demonstrates that Telstra's competitors were paying five times the fair price for transmission services, foreclosing competition in areas where it otherwise might occur and, in places where competitors did take a service, effectively further subsidising Telstra's regional mobile network investment. This has occurred for some two decades.

Q34.2 Technological change will tend to reinforce Telstra's dominant position over time

Telstra's strong position in regional mobile markets gives it a material cost advantage. However, a question for the ACCC is whether such advantages could be reduced over time in the absence of any intervention? Could changes in technology, for example, impose a constraint on Telstra's market power. In VHA's view, this is highly unlikely. Telstra's first mover advantages will mitigate against self-correction, and will in fact reinforce Telstra's dominance.

This factor can be illustrated with an example. Consider an area with very low population density and limited non-Telstra infrastructure in place. If there is a desire to extend existing mobile coverage within this area, Telstra's existing infrastructure means that it will have an overwhelming cost advantage in doing so. Competitors must incur substantial sunk costs to extend their networks to the edge of Telstra's existing network, whereas Telstra has already incurred (or been subsidised for) these sunk costs. That is, the incremental costs of Telstra extending its network will be far less than competitors because competitors have limited capacity for sharing their existing infrastructure with their new infrastructure.

Further, we note that this advantage holds even if the state or federal governments contribute funding to network extension, and insist on competitive tendering for the extension. The scale and scope advantages of Telstra resulting from being the first mover means that it has a very strong prospect of winning these tenders.

The competition policy concern is that, over time, the current situation may continue to worsen as Telstra leverages its pre-existing market coverage, market share and market premium to continue to reinforce its market dominance in regional Australia. There is ample evidence that this has occurred over the last decade. The market failure may well have reached a tipping point and become self-reinforcing. Future technological developments and release of spectrum may help in theory, but in practice appear equally likely to reinforce dominance as undermine it.

Q34.3 Evidence provided by VHA

Please refer to Part C of this submission.

Q35. What are the incentives to build or extend a mobile network in areas of regional Australia where population density is low?

VHA identified the nature of the incentives to build or extend mobile networks in regional areas of Australia in sections 1 and 2 of Part A of this submission. To reduce the length of this submission, VHA does not repeat those submissions, but instead refers the ACCC to Part A of this submission.

The economics of mobile network build in regional Australia are critically affected by population density. VHA has identified in its main submission how it makes investment decisions. VHA has also provided the ACCC with a copy of VHA's economic model to demonstrate sites that are, and are not, economic for VHA to replicate.

[C-I-C]

Q35.1 Evidence – conclusions by independent expert Dr Derek Ritzmann, Compass Lexecon

As identified in the independent expert report of Compass Lexecon, the economics of density mean that there are different zones within regional Australia corresponding with the different economics of network build.

In the outermost coverage areas, there is a zone where it is not economic for any MNO to invest, hence investment only occurs with the presence of government subsidies. Within this, there is a zone where it is only economic for one MNO to invest, comprising a natural monopoly. Within this there is a zone where it is only economic for another MNO to invest if it can gain sufficient market share, but such market share cannot be achieved without regulatory intervention. Within this there is a zone where it is possible for two, but not three, MNOs to invest, comprising a duopoly coverage areas. Within this, is the area where all three MNOs have competitive coverage.

A diagram illustrating the different coverage zones is set out in Part A of this submission. These zones surround each 'island' of high population density in Australia.

Compass Lexecon reaches the following conclusions:³¹

“It is my opinion that the natural monopoly areas are not contestable in the absence of regulation. On the information I have, I conclude that these areas are only capable of sustaining one infrastructure-based service provider having essentially the entirety of user demand in those areas, and may need subsidies to sustain even one infrastructure-based supplier. The results of the analysis above lead me to conclude (as already discussed) that these areas are natural monopolies that are not likely to be capable of sustaining two or more sets of mobile telecommunications infrastructure.

Moreover, there are also likely to be areas which are in theory contestable but in reality are unlikely to see material infrastructure-based entry. These areas cannot strictly be characterized as natural monopolies, as a second entrant might be economically viable on a costs basis; however, entry would only occur if the entrant could capture sufficient market share sufficiently quickly after infrastructure-based entry. This means that, in these areas, competitive infrastructure-based entry is likely to be absent or limited by barriers to entry arising from large fixed and sunk costs and uncertainties of future market shares, despite the theoretical possibility of economic viability. In these areas, for an entrant to contest these areas effectively, it would need to build a new set of infrastructure capable of meeting the entire footprint currently served by the incumbent – this would require incurring significant capital costs, large proportions of which are sunk. The entrant would then also

³¹ Dr Derek Ritzmann, Domestic Mobile Roaming Declaration Inquiry Expert Report, 1 December 2016, page 13.

need to capture the great majority of the users currently served by the incumbent in order to make the entrant's costly and risky infrastructure investments viable, which implies that the entrant would have to capture exceedingly unrealistic market share growth rates. The entrant would need to accomplish these two highly unlikely events all the while bearing significantly increased ex ante risks of entry due to it not knowing whether or not it would be able to capture the market, which means that that would have a significantly raised project-based cost of capital, with clear negative implications for NPV viability analysis. All of these factors combined make the likelihood of contestability even more unlikely in these areas. The confluence of events required for entry to be feasible is highly unlikely in the typical case in relation to the question at issue. It is therefore my opinion that there exists a category of area which is not technically a natural monopoly but which is nonetheless not realistically contestable in the absence of regulation because of the unlikelihood of entry.

Finally, there are likely to be areas where competitive infrastructure-based entry is feasible but is likely to be limited, by the interaction of costs and demand, to entry by one other MNO. As a consequence, these are areas which are likely to be served by infrastructure-based duopolies and entry by a third infrastructure-based MNO is unlikely. These areas similarly cannot be characterized as natural monopolies, but are unlikely to support a third (or more) MNOs with economic viability. I have not been asked to examine and provide an opinion on the prospects for anti-competitive strategic behavior such as tacit coordination in the case of industries where supply is structurally limited to two suppliers. However, based on my substantial experience of the grounding principles and application of competition and regulatory analysis and economics, it is my opinion that this issue merits further investigation.”

Compass Lexecon further concludes that declaration of roaming can promote investment by access seekers in the Telstra monopoly areas that are not a natural monopoly. Compass Lexecon comments:³²

“A longer-term movement towards facilities-based competition can be assisted by some forms of temporary entry encouragement – this is the widely known “ladder of investment” concept. Mandated access regulation is commonly regarded in the economic literature as being an effective temporary entry measure which can encourage movements to longer-term sustainable facilities-based competition, with consequently strong pro-competitive prospects in the longer term. The mechanism is that the mandated access measure provides a “stepping stone” on the “ladder of investment” – the mandated access spurs market entry in a way that (1) increases competition in the shorter term, and (2) provides a “foot on the

³² Dr Derek Ritzmann, Domestic Mobile Roaming Declaration Inquiry, Expert Report, 23 November 2016, page 27.

ladder” by way of entry-level market share, which in turn then enables future expansion of market share by way of infrastructure-based investment. By this mechanism, potential entrants are permitted to lease some network elements that are particularly difficult to replicate at the initial stages of competition, which in turn provides an impetus for them to invest in their own facilities some time later.”

VHA agrees with these conclusions and has provided further detail in Part A of this submission.

Q35.2 Network upgrades rather than network rollouts

The ACCC’s question refers to ‘extending’ and ‘building’ a mobile network. VHA notes that Australia is a mature market and hence a key focus is on adding capacity (i.e., depth) to the existing network footprint and upgrading that footprint with new technologies, rather than extending the footprint.

The investment focus in Australia is illustrated by the following image:

Evolution of a mobile network

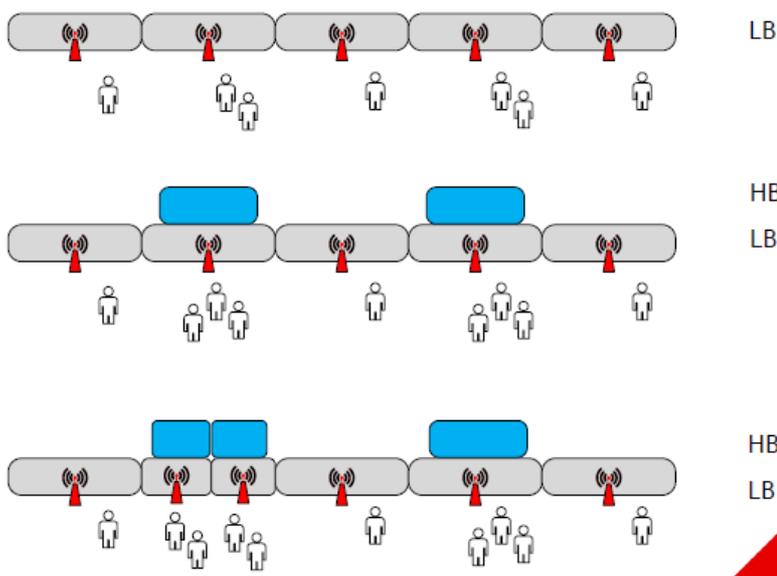
1. Low-band spectrum used to provide **cost-effective coverage** (minimise number of sites)



2. High-band spectrum added used to provide **cost-effective capacity** (use existing sites)



3. Additional sites required when **capacity** of existing sites & spectrum exhausted (no additional coverage)



Note: LB = low band, HB = high band

Q36. To what extent would declaration of a mobile roaming service promote the efficient use of the infrastructure used to provide mobile services?

VHA identified the extent to which declaration of roaming would promote the efficient use of infrastructure in section 6 of Part A of this submission. To reduce the length of this submission, VHA does not repeat those submissions, but instead refers the ACCC to Part A of this submission.

VHA considers that declaration will encourage the efficient use of existing infrastructure by encouraging efficient sharing of active infrastructure in circumstances where sharing of passive infrastructure is either not economic (due to natural monopoly) or not yet economic (due to the market share required for investment).

VHA has explained in Part A of this submission how sharing of mobile infrastructure in regional Australia will result in increased allocative, productive and dynamic efficiency. VHA has also explained that such sharing is consistent with international best practice.

Q36.1 Evidence – conclusions by independent expert Dr Derek Ritzmann, Compass Lexecon

As identified in the independent expert report of Compass Lexecon, the shared use of infrastructure is the most efficient use of infrastructure in areas of natural monopoly. As Compass Lexecon explains:³³

“The areas in question are those areas where mobile telecommunications infrastructure is likely to constitute a natural monopoly and those areas where duplication of facilities is otherwise not feasible because of high entry barriers. This means that it is unlikely that the infrastructure will be duplicated. A widely accepted result in economics is that in situations of natural monopoly the most economically efficient result is for the set of natural monopoly infrastructure to be shared among all users, rather than to force or hope for the infrastructure to be duplicated.

The shared use of the infrastructure therefore leads to the most efficient use of that infrastructure from an economic perspective. The shared use of infrastructure means that the economies of scale (the central characteristic of the natural monopoly) in that infrastructure can be most efficiently and most fully exploited, leading to more efficient use of the infrastructure. When the access provider’s network is under-utilized, and there is sufficient excess capacity available to serve additional traffic (which is likely to be the case in the sparsely populated regions where a domestic mobile roaming could be declared) e.g. by way of roaming, the provision of roaming enables the access provider to explore economies of scale to a greater extent, which leads to more efficient use of its infrastructure.

The end result is greater static economic efficiency. The increased static (productive and allocative) efficiency due to the mandated access to natural monopoly facilities is broadly accepted in the academic literature and is reflected in the ACCC discussion paper to the Inquiry.”

³³ Dr Derek Ritzmann, Domestic Mobile Roaming Declaration Inquiry, Expert Report, 23 November 2016, page 25.

Q36.2 Evidence – comments by the OECD

In Part A of this submission, VHA pointed to the OECD’s analysis of mobile network sharing in its recent January 2015 survey *Wireless Market Structures and Network Sharing*. This survey undertook an examination of the state of mobile network sharing in each of the OECD economies.

Relevantly, the OECD commented as follows in relation to the efficiency benefits of sharing mobile network infrastructure and the policy benefits of encouraging such sharing:³⁴

“Accordingly, while there is a preference for maximising the number of facilities based MNOs, it is recommended that at least certain degrees of network sharing be allowed and encouraged if it leads to more players at both the wholesale and retail level as well as nationally or in specific regions. For example, in some rural areas in OECD countries there may be only one MNO present and, therefore, only a single wholesaler. Network sharing may encourage other players to provide joint alternative infrastructure, in competition with that player, which they would not do alone...”

Accordingly, the OECD has recommended that OECD countries promote sharing of mobile network infrastructure in rural areas with natural monopoly characteristics.

Q37. How may the geographic scope of the service description affect the extent to which declaration could promote the efficient use of such infrastructure?
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VHA identifies the extent to which the geographic scope of the declaration of roaming would promote the efficient use of infrastructure in section 7 of Part A of this submission. To reduce the length of this submission, VHA does not repeat those submissions, but instead refers the ACCC to Part A of VHA’s submission.

VHA also refers to its earlier response to ACCC Q30 regarding the geographic scope of roaming.

As identified in relation to VHA’s response to ACCC Q36 above, VHA considers that declaration will encourage the efficient use of existing infrastructure by encouraging efficient sharing of active infrastructure in circumstances where sharing of passive infrastructure is either not economic (due to natural monopoly) or not yet economic (due to the market share required for investment).

³⁴ OECD (2014), “Wireless Market Structures and Network Sharing”, OECD Digital Economy Papers, No. 243, OECD Publishing. <http://dx.doi.org/10.1787/5jxt46dzt9r2-en>.

VHA has explained in Part A of this submission how sharing of mobile infrastructure in regional Australia will result in increased allocative, productive and dynamic efficiency. VHA has also explained that such sharing is consistent with international best practice.

In summary, VHA's submission is that:

- Declaration of the natural monopoly area will ensure efficient use by enabling sharing of the infrastructure in such a manner that retail competition can then occur. Such retail competition will, in turn, provide an efficiency dividend. VHA has explained the way the promotion of competition will result in the achievement of efficient use in Part A of this submission. Sharing is the optimal solution consistent with the promotion of competition.
- Declaration of the contestable Telstra monopoly area will ensure efficient sharing between the MNOs and hence efficient use. Such sharing will enable competition to occur based on roaming such time as efficient investment can occur, either by Optus or VHA. Again, sharing is the optimal solution consistent with the promotion of competition.
- Declaration of the duopoly area will ensure efficient sharing between the MNOs and hence efficient use in circumstances where one of the MNOs does not have its own network. Such sharing will enable competition to occur based on roaming such time as efficient investment can occur, in this case by VHA. In circumstances where a geographic area cannot support more than two mobile networks, then sharing is the optimal solution consistent with the promotion of competition.

As set out in VHA's response to ACCC Q30 and in Section 7 of Part A, the service description should cover all areas of Australia that has mobile coverage by less than three MNOs.

(b) Effect of declaration on investment incentives

Q38. How would declaration affect the incentives of an access provider to make investments in mobile infrastructure? Please provide evidence to support your views.

VHA identifies the extent to which declaration would affect the incentives of access providers to make investments in mobile infrastructure in Section 7 of Part A of this submission. Given the critical importance of this issue in this declaration inquiry, VHA has again set out its key points below.

Q38.1 Effect of declaration on access provider incentives to invest

VHA submits that any adverse effects on investment by access providers are not likely to be material.

A common-sense analysis quickly verifies that this is correct. The only areas that will be the subject of declaration are those areas that are characterised by an absence of competition. In the absence of competition, there will be no meaningful competitive threat. In the absence of any meaningful competitive threat, there is no reason to engage in competitive rollout. The pre-existing competitive incentives for investment by Telstra in the Telstra monopoly areas are therefore very weak indeed, if not practically non-existent. Declaration will therefore not be materially affecting the current position.

VHA considers that much of the debate over the impact of roaming on investment incentives has been overstated by Telstra. VHA further analyses this issue in detail below.

Telstra has a clear incentive to point to all its investment in regional mobiles in Australia over the last decade and to innocently proclaim that such investment would not have occurred if roaming had been declared. With respect, VHA considers that such statements by Telstra are not substantiated by any evidence.

VHA considers that this issue can be addressed by first analysing the incentives to invest in the presence of declaration, then comparing this to the incentives to invest that will exist in the absence of declaration. On such a comparison, declaration will have little, if any, adverse impact on investment incentives in the Telstra monopoly areas.

Q38.2 Incentives to invest in the presence of declaration

First, VHA considers the incentives to invest in the presence of declaration:

- ***Declaration does not apply to 95.6% of population:*** VHA acknowledges that the networks have competed to roll-out new technologies. However, the declaration of roaming will only apply to those areas with less than 3 mobile networks. MNOs will have a strong incentive to compete on speed of deployment within the 3-network footprint. Declaration has no impact on network deployment within the 3-network footprint.
- ***Network economics will drive investment:*** Telstra's scaremongering around investment is based on a premise that investment is driven by coverage-based competition. However, this assumes that investment is revenue-driven, namely that if a network did not invest, it would lose revenue to its competitor that did invest. In fact, investment may be cost-driven. A new technology, such as 3G or 4G, can deliver significant cost efficiencies and increased efficient utilisation of spectrum for an MNO against an old technology, such as 2G. Consequently, the desire to achieve cost reductions can itself create all necessary economic incentives to rapidly

deploy a new technology. Such cost savings, for example, have resulted in substitution from 2G to 3G, and from 3G to 4G, as well as the progressive closure of legacy networks. Declaration has no impact on cost-based incentives to invest.

- ***Government subsidies will drive investment*** A significant part of mobile investment in the natural monopoly area has involved subsidies provided to Telstra by the Australian taxpayer. Telstra has invested because it has received a windfall gain from the taxpayer, namely a subsidised base station in an otherwise uneconomic area. The existence of such a windfall gain provides a powerful incentive to invest. Declaration of roaming will not alter Telstra's incentives to bid for government subsidies and to invest if it receives them. Moreover, declaration will create competition for such subsidies (as identified in earlier in this submission) because the other MNOs will have contiguous coverage and will therefore be in a position to benefit from such subsidies. Competition for government subsidies may, in fact, increase incentives for Telstra to invest while removing its monopsony position.
- ***Wholesale revenue will drive investment***: As identified above, Telstra has pointed to coverage-based competition as driving investment without translating this into the economics of network build. Each network build decision is based on realisation of a positive NPV. Irrespective of the intensity competition, investment will fundamentally still only occur where the NPV of investment is positive. Given that Telstra will be receiving wholesale revenue from the other MNOs via the access charge, Telstra will be fully compensated for the costs of efficient investment and its NPV should be unchanged. As such, there should be no disincentive for Telstra to invest under an NPV analysis.

In relation to the last point, Telstra may point to the loss of its retail monopoly profits as creating a disincentive to invest (if Telstra factors monopoly profits into its NPV analysis). The argument would be that Telstra can only invest in a regional area if it receives 100% of the monopoly retail margin from that area (i.e., difference between wholesale and retail) and does not share that retail margin with access seekers. However, another way of saying this is that it is only profitable for Telstra to invest if it can capture a monopoly profit sufficient to recover its investment. With respect, this is not economically efficient investment, as the various case law to date clearly demonstrates.

Moreover, there is a very high risk that any such monopoly profit would simply be captured by the access provider (i.e., Telstra) without resulting in any investment - after all, in the presence of a natural monopoly, there is no competitive incentive to invest as no other firm can economically invest.

Q38.3 Incentives to invest in the absence of declaration

Bearing this in mind, VHA now considers the incentives to invest in the absence of declaration and highlights that Telstra's track record of investment in regional Australia is not as exemplary as Telstra would have the ACCC believe:

- **Monopoly leads to very weak investment incentives:** Telstra already has a coverage advantage of almost double the next largest network. In such circumstances, there is no competitive incentive for Telstra to further invest in coverage – it is already the largest network and it knows that this position is unassailable given its control of a natural monopoly. A few further base stations will not add any incremental benefit to its coverage claim. It is not competing with any rival in the monopoly areas. Accordingly, coverage-based competition does not create any incentives for Telstra to invest in the Telstra monopoly areas.
- **Monopoly areas receive less investment and lower quality service:** Telstra's track record of investment in the Telstra monopoly areas is not as exemplary as Telstra would have the ACCC believe. The natural monopoly areas of Australia currently does not have 4G services, while Telstra has 4G services in competitive areas of Australia.³⁵ Network quality in regional Australia has been criticized in the various regional telecommunications reviews in the context of network reviews. This result is entirely consistent with the predictions of the weaker incentives on a monopoly in the absence of competition.
- **Threat of regulation:** Telstra has faced a constant threat that if it does not invest in regional Australia, it may be forced to by way of government regulation. However, this threat has generally weakened over the years and has instead been replaced by government subsidies. Moreover, the threat of regulation has largely been manifested as a threat of regulatory intervention by way of declaration of roaming. Telstra's response to this roaming declaration inquiry suggests that it has not historically considered this threat of regulation to be credible.
- **Rural investment has lagged metro investment:** Consistent with the weaker incentives to investment in the absence of competition, investment by Telstra into regional Australia has lagged investment into metropolitan Australia. The natural monopoly areas are predominantly 3G, not 4G. Only after the commencement of this declaration inquiry has Telstra announced it will deploy 4G services into some of the Telstra monopoly areas. In this manner, investment

³⁵ Telstra publically claims its 4G network currently reaches 98% of the population, this is smaller than Optus' 98.5% population coverage.

has generally occurred only when there is a threat of investment by Optus or VHA, but not otherwise.

- **Power over regional telecoms policy:** Telstra's monopoly power in regional Australia has conferred Telstra with a very high degree of negotiating leverage in its dealings with government and politicians. Because roaming is not declared, there is no carrier other than Telstra who can substantially extend the geographic scope of network coverage in Australia. Thus, Telstra can credibly threaten not to invest unless it receives subsidies or favourable regulatory treatment. In effect, Telstra has a stranglehold over mobile network investment in the Telstra monopoly areas of regional Australia. If roaming were declared, then other MNOs could invest and Telstra would lose its power to dictate the future of regional telecommunications policy.
- **Mature market:** The Australian mobiles market is mature. As such, deployment of mobile towers has generally reached its maximum economic extent for the current level of population density. The Australian market is not one in which there is massive investment in further network deployments, rather any deployments are at the fringes with the benefit of government subsidies.

Q38.4 Observations on investment incentives

When considering these issues, VHA believes that the actual incentives on Telstra today to invest in the Telstra monopoly areas are very weak indeed. Such investment is occurring not due to any competitive threat or competitive incentive, but is occurring due to the provision of government subsidies and due to the cost efficiencies in substituting to more efficient technologies. The declaration of roaming will have no impact on these existing incentives.

In this manner, VHA submits that Telstra's arguments regarding the adverse impact of declaration on its investment incentives are being dramatically overstated. Telstra's public and emotive comments amount to scaremongering and appear calculated to obscure the reality of the current investment debate (that is, that Telstra has little incentive to invest in any event as it is not subject to any meaningful coverage-based competition in the Telstra monopoly areas).

VHA submits that Telstra's various arguments and assertions should be taken with a grain of salt. Mere assertion and speculation is not a substitute for hard evidence and the application of tried-and-tested economic logic.

Q38.5 Evidence provided by VHA

Please refer to Part C of this submission.

Q39. What factors should we consider when examining the economic efficiency of extending mobile networks into areas without network coverage? Is it likely to be efficient for Telstra to extend the reach of its mobile network beyond the current geographic coverage? Please provide reasons for your views.

The ACCC appears to be referring to absolute network coverage by Telstra, namely the ability of a regional consumer to get access to a mobile signal from at least one mobile network.

However, as the ACCC will appreciate, the coverage issue is much more nuanced than just Telstra's absolute network coverage. The different MNOs have different levels of geographic coverage for each of their different technologies, namely 2G, 3G and 4G. The focus of competitive investment of the MNOs is on deploying the latest technologies as quickly as possible to the bulk of their customers. This competition occurs within the existing coverage footprint so will not be affected by declaration.

Q39.1 Efficient investment by Telstra is tainted by its monopoly power

In relation to Telstra's incentives to extend its network in the natural monopoly areas, VHA has set out in its response to ACCC Q38 that VHA considers that the current incentives on Telstra caused by competition are likely to be very weak. Telstra's decision to invest is therefore likely to be driven more by a desire to reduce costs or to take advantage of government subsidies. Moreover, Telstra may also have every incentive to leverage its market power over regional mobile infrastructure investment to extract greater subsidies from government than may otherwise be the case.

[C-I-C]

VHA therefore considers that efficient investment by Telstra is unlikely to be occurring.

[C-I-C]

Q39.2 Telstra's is unlikely to extend its network in regional Australia without further subsidies

VHA believes that Telstra's network reach has already extended beyond coverage areas where it is economically efficient for one MNO to deploy network infrastructure. VHA's view is formed based on the significant amount of public funding which Telstra receives (see VHA's response to Q1).

Based on publically available information, VHA's assessment of Telstra's and VHA's cost to build new mobile sites from the Mobile Blackspots Programme suggests that public funds are not being efficiently utilised by Telstra. VHA's per site costs on an average basis is about \$500,000, while

Telstra's per site costs on an average basis of over \$800,000. VHA is sceptical of Telstra's figures, but it does suggest that Telstra may have inflated the costs of network build in regional Australia in order to evidence to government that it is not economic for Telstra to further build without government subsidies.

Q40. To what extent is the declaration of a mobile roaming service likely to impact efficient investments by access providers in extending their network coverage and in upgrading their existing networks?

VHA's response to ACCC Q38 already addresses this issue. However, VHA makes some additional observations below.

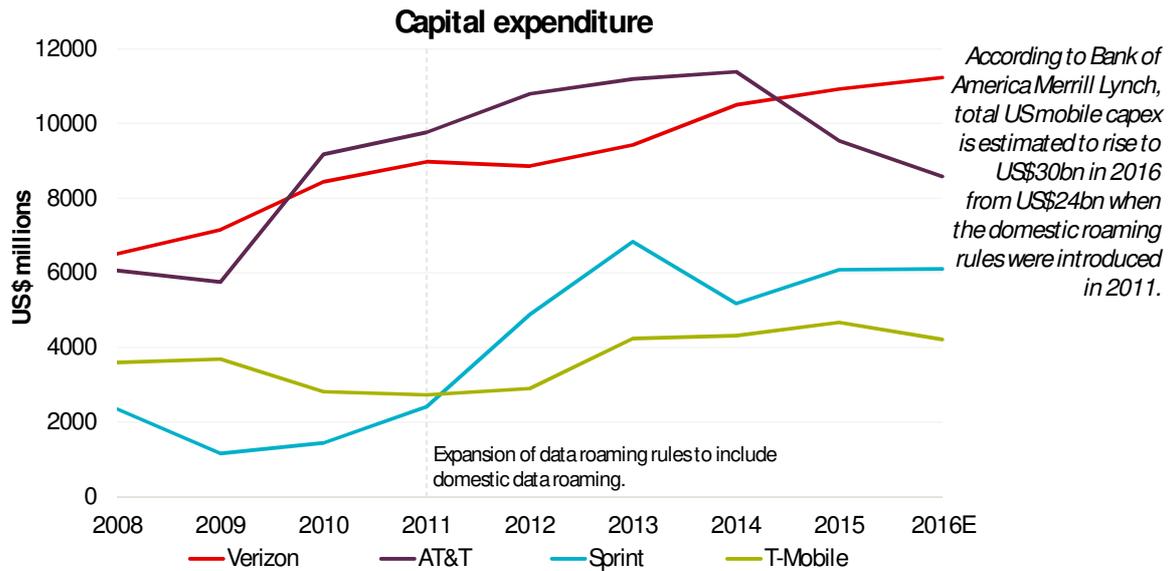
Q40.1 International experience suggests any adverse effect is minimal

As identified above, in April 2010, the Federal Communications Commission (FCC) in the United States undertook a re-examination of the regulated roaming arrangements in the United States. Relevantly the FCC considered whether roaming would have an adverse effect on investment incentives. The FCC concluded (at paragraph 32):³⁶

“AT&T argues that, if the first carrier providing coverage in a given area were required to provide automatic home roaming service to its competitors' customers, there would be no reason for competitors to build out their own networks in that area. We disagree. Carriers deploying next generation networks will still have incentives to build out to ensure that their subscribers receive all of the benefits of the carriers' own advanced networks. We find that, as a practical matter, the relatively high price of roaming compared to providing facilities-based service will often be sufficient to counterbalance the incentive to “piggy back” on another carrier's network. Further, we emphasize that host carriers have flexibility, subject to a standard of reasonableness, to establish the structure and the level of roaming rates, and that, as described below, the fact that a requesting carrier holds spectrum, or is offering service on its own facilities, in an area are among the factors we may consider in addressing disputes. Accordingly, the impact of a roaming obligation on buildout incentives does not warrant a general exclusion, but should be considered as a factor on a case-by-case basis in the event of a dispute.”

The experience in the United States also demonstrates that roaming has not affected the investment intensity of the incumbent MNOs. This is illustrated by the following graphic:

³⁶ See https://apps.fcc.gov/edocs_public/attachmatch/FCC-10-59A1_Rcd.pdf.



Source: Bank of America Merrill Lynch, *Global Wireless Matrix 1Q15*, VHA.

Q40.2 Telstra's claim that it would not invest is not credible

Telstra has made a variety of public statements that suggest it would not invest in regional Australia (or, indeed, at all) if roaming were declared.

On 6 September 2016, for example, Telstra's Group Executive for Telstra Corporate Affairs stated in the public domain:³⁷

"Regulated roaming would mean there was virtually no reason for any mobile phone company to invest in new coverage or better technology."

As VHA has demonstrated in its response to ACCC Q39, declaration of roaming in areas with less than 3 mobile networks would have no impact in the coverage areas comprising 95.6% of the population. Telstra's statement is therefore factually incorrect even at this most basic level and amounts to misinformation. Moreover, if Telstra did not take advantage of government subsidies, the existence of roaming would enable Optus and VHA to do so. In such circumstances, it seems unlikely that Telstra would be prepared to sacrifice its government subsidy.

In the areas with less than 3 mobile networks, VHA has demonstrated that the competitive incentives for investment are very weak. However, the economic imperative for investment still exists. The economic imperatives include the reduction in costs from new technologies, as well as the revenue that can be generated from the supply of new telecommunications services to consumers, including

³⁷ See <https://exchange.telstra.com.au/2016/09/06/regulated-roaming-not-worth-the-risk/>.

greater data packages. Telstra would also still be receiving wholesale revenue from roaming that would enable it to recover its costs.

Telstra's comments therefore make little economic sense and are not credible.

Q40.3 Ultimately any adverse effects can be mitigating by setting an appropriate access price

As VHA identifies in Part A of this submission, even if there were adverse effects on investment by access providers, such adverse effects can be substantially mitigated (if not eliminated) by setting an appropriate access price.

As Compass Lexecon explains:³⁸

“First, an appropriate access price can preserve the access provider’s incentives to invest in quality upgrades of its own infrastructure, upgrades which benefit both the access provider and the access seeker. In particular, when the access seeker is operating in a differentiated market or is more efficient, investment spillovers may have a positive effect on access provider’s investment incentives. The fact that rivals also benefit from the investment is therefore not in itself detrimental to the access provider’s investment incentives; there is no detrimental “free-rider” effect in this sense.

Second, the declaration of mobile roaming infrastructure can enhance the access provider’s incentives to engage in efficient cost reduction, in particular if access prices are set at appropriately low levels. An appropriate access price can incentivize the access provider to invest more in cost reduction in order to maintain a competitive advantage at the retail level.

Third, the declaration of mobile roaming infrastructure can maintain appropriate incentives for the access provider to invest in extending its network reach. It is important to note that access providers commonly have two incentives for new investment in infrastructure: a stand-alone incentive; and a pre-emption incentive. The stand-alone incentive arises from the expected increase in profits after investment – absent strategic effects, firms would choose investment timing by trading off earlier gains in profit against lower investment costs later on. The pre-emption incentive to invest is the advantage from being the first to invest. If being a leader is more profitable than being a follower, then each firm has the incentive to pre-empt the other firm’s investment. It is likely that both incentives exist in relation to the supply of mobile telecommunications infrastructure in regional Australia. It is therefore my conclusion that incentives to invest in network extension can be maintained if access is mandated in the presence of an appropriate wholesale access price.”

³⁸ Dr Derek Ritzmann, *Domestic Mobile Roaming Declaration Inquiry*, Expert Report, 23 November 2016, page 29-30.

Compass Lexecon also further emphasised the importance of access pricing in his following comment, further illustrating that efficient incentives for investment by access providers can be resolved almost entirely with an appropriate access price:³⁹

“The conclusions expressed above are reliant to a significant extent on a commensurate access price being determined. There is an extensive economic literature on the methods for determining efficient access prices that preserve the efficient incentives for access providers (and in the long-term the incentives for access seekers) to encourage the outcomes described above. I have not been asked to consider the specific mechanisms of setting access prices and therefore do not discuss this further. However, I state clearly that the opinion expressed in this section, namely that mandated access can encourage the efficient use of and investment in infrastructure, is reliant on an appropriate access pricing level and structure which preserves the desirable incentives (such as the incentives for the access provider to upgrade its network, upgrade extend its network, and invest in cost-saving technology, and for the access seeker to invest in its own infrastructure in the long term) being determined.”

This same conclusion with reached by the ACCC in the last declaration inquiry.

(c) Promoting efficient investment in infrastructure

Q41. How would declaration affect the incentives of an access seeker to make investments in mobile infrastructure in order to: (a) extend their network coverage? (b) upgrade their existing network ? Please provide evidence to support your views.

Q42. What factors should we consider when examining the economic efficiency of an access seeker to extending its network into areas where there is an existing mobile network? Would it be efficient for either Optus or VHA to extend their mobile networks into areas where only Telstra has mobile coverage? Please provide reasons for your views.

VHA identifies the extent to which declaration would affect the incentives of access seekers to make investments in mobile infrastructure in Section 7 of Part A of this submission. To reduce the length of this submission, VHA does not repeat those submissions, but instead refers the ACCC to Part A of this submission.

³⁹ Dr Derek Ritzmann, Domestic Mobile Roaming Declaration Inquiry, Expert Report, 23 November 2016, page 28.

VHA has identified in Part A of this submission that declaration will encourage efficient investment in mobile infrastructure by access seekers by enabling access seekers to grow market share and hence ultimately invest in those areas where sharing of passive infrastructure is economic.

Q41 *Declaration as a stepping stone to investment by access seekers*

As identified in the Section 7 of Part A of this submission, declaration will facilitate investment by access seekers by enabling them to overcome a barrier to competition and hence to win greater market share. Greater market share will drive greater revenues and hence mean that the business case for investment becomes NPV positive.

As Compass Lexecon:⁴⁰

“A longer-term movement towards facilities-based competition can be assisted by some forms of temporary entry encouragement – this is the widely known “ladder of investment” concept. Mandated access regulation is commonly regarded in the economic literature as being an effective temporary entry measure which can encourage movements to longer-term sustainable facilities-based competition, with consequently strong pro-competitive prospects in the longer term. The mechanism is that the mandated access measure provides a “stepping stone” on the “ladder of investment” – the mandated access spurs market entry in a way that (1) increases competition in the shorter term, and (2) provides a “foot on the ladder” by way of entry-level market share, which in turn then enables future expansion of market share by way of infrastructure-based investment. By this mechanism, potential entrants are permitted to lease some network elements that are particularly difficult to replicate at the initial stages of competition, which in turn provides an impetus for them to invest in their own facilities some time later.

There are several specific mechanisms by which this broader process operates. Each of these mechanisms potentially encourages the efficient investment in infrastructure.

First, potential entrants face significant uncertainty and risk, which is a significant barrier to entry. Mandated access can mitigate this significant barrier to entry. Entrants typically face uncertainty regarding the state of demand or their own costs, which make the returns to their investments highly uncertain. Mandated access permits entrants to first enter a market based on services-based competition, which assists them to mitigate a significant proportion of their entry risk. This can thereby sharply reduce the barriers to entry and thereby encourage the efficient investment in infrastructure.

⁴⁰ Dr Derek Ritzmann, Domestic Mobile Roaming Declaration Inquiry, Expert Report, 23 November 2016, page 27-28.

Second, if entrants are able to access an incumbent's infrastructure (at appropriate wholesale access prices), this will enable entrants to develop their user base, e.g. by increasing consumer awareness of the new/differentiated services they offer. Moreover, this can also assist the access seeker to build its reputation, which can in turn expand potential demand by increasing consumers' willingness to pay for the new entrant's services. Equipped with a customer base, a rival may then be ready to undertake further, much more significant infrastructure-based investments. This further reduces the barriers to entry and encourages the development of longer-term sustainable facilities-based competition and thereby encourages the efficient investment in infrastructure.

Third, a further barrier to entry may arise from the information asymmetry whereby an incumbent has superior knowledge of the market and its characteristics due to its accumulated experience in the market over the years. Without acquiring comparable experience, potential entrants might not find facilities-based entry viable. However, a phase of service-based competition can give them a chance to invest in experience before investing in their own physical infrastructure. Again, this reduces barriers to entry and thereby facilitates the longer term development of sustainable facilities-based competition and thereby encourages the efficient investment in infrastructure. It is a process by which intra-infrastructure competition would in the longer run lead to an inter-infrastructure competition.

For these reasons, mandated access is likely to encourage the efficient investment in infrastructure by lowering barriers to entry to potential entrants, increasing the scope for economically viable infrastructure investment in the relevant areas, thereby expanding the scope for the development of future facilities-based competition. In my opinion this process is likely to encourage the efficient investment in infrastructure in a way that is likely to encourage dynamic efficiency in mobile telecommunications in regional Australia."

Q42.1 Evidence – [C-I-C]

[C-I-C]

Q42.2 Telstra's free-riding arguments are baseless

As VHA outlines in Section 5 of Part A of this submission there is no free-riding problem in relation to roaming. Telstra's arguments that VHA is 'free riding' seem intended more for public audience and again amount to misinformation by Telstra.

As Mr Feasey explains in his independent expert report:⁴¹

‘I understand that Telstra has claimed that Vodafone is seeking to free-ride on Telstra’s network and may argue that Vodafone has or will delay the deployment of its own network in the hope that this will encourage the ACCC to intervene. Again, I might attach greater weight to Vodafone’s conduct prior to the announcement of the current inquiry, but it seems to me unlikely that Vodafone would do this. First, it is obvious but important to note that the simple fact that Optus has been able to deploy its network in some areas where Vodafone has not does not mean that Vodafone could do likewise. Some areas will only sustain two networks, just as some will only sustain one. Optus’ presence may therefore serve to prevent further entry by Vodafone. Second, Optus (and Telstra) may enjoy strategic advantages which have allowed them to deploy network in areas where Vodafone or another entrant could not. This might include ownership of fixed network assets, including transmission and backhaul facilities, which Vodafone might otherwise have to purchase from third parties. These assets are likely to have a significant influence on the economics of deploying network in the geographic areas we are concerned with here. Third, if Vodafone could have expanded its coverage and improved its competitive position in the past, it would be odd for it not to have done so. Vodafone has been losing significant market share in recent years and I see no reason why Vodafone would engineer a weakening of its competitive position in the hope or expectation that the ACCC would ride to its rescue.’

For all the reasons outlined above, declaration of roaming will encourage the economically efficient investment in mobile infrastructure by VHA.

(d) Refinements to service description to promote investment

Q43. Would restricting the scope of any declared roaming service to services on 3G networks address any dampening effect of the declaration may have on the incentives of MNOs to make efficient investments in mobile infrastructure?

In section 4.3.4 of the ACCC’s Discussion Paper, the ACCC has identified that there are options to address the effect of declaration on investment incentives.

⁴¹ Richard Feasey, Issues arising in relation to the ACCC’s domestic roaming declaration enquiry, November 2016, paragraph 45.

For the reasons set out earlier in this submission, VHA submits that such options are not required for two key reasons:

- (a) First, appropriate access pricing provides all the necessary incentives for investment, hence there is no need to create further investment incentive mechanisms (particularly as such mechanisms may introduce their own difficulties and complexities).
- (b) Second, declaration will have no impact, or only a trivial impact, on investment incentives. While declaration will remove coverage-based competition for the Telstra monopoly areas, such competition has not been a material driver of investment in the Telstra monopoly areas in any event, as identified above.

In relation to the first of these points, VHA asked international telecommunications expert Richard Feasey to express his opinion on whether such investment incentives would be appropriate and, if so, how they should be framed. Richard Feasey concluded:⁴²

“Some argue for excluding certain technologies from the scope of the declaration on the grounds that Telstra needs to capture profits from exclusivity in order to be incentivised to invest in such technologies. This accepts that Telstra would not provide access to these assets absent regulation, and so supports the case for a declaration. There is then a difficult distinction to be drawn between replicating the incentives which a unregulated firm would face when investing in a competitive market, and allowing monopoly rents to fund inefficient levels of investment. There are no obvious ways to make such distinctions, or to decide what period of exclusivity might be sufficient to ensure one but not the other.

In addition, excluding a technology from the declaration will mean that any competitive benefits which might otherwise be derived from providing access to that technology are similarly excluded. If a large proportion of consumers value the new technology and will not accept substitutes for it, then they will remain ‘captive’ to Telstra in just the same way as they are today. Excluding technologies therefore runs the risk of neutering the declaration.

The ACCC would need to balance the long term consumer benefits that might be derived from any additional network investment against the competitive losses that would arise from exclusivity. Telstra should not be allowed to earn supernormal profits to make investments which it would not otherwise make under competitive conditions (even if such investments have been made by Telstra in the past). Given this, and the additional challenges involved in deriving a price for roaming using some technologies but not others, my own view is that it

⁴² Richard Feasey, Issues arising in relation to the ACCC’s domestic roaming declaration enquiry, November 2016, paragraphs 9-11.

would be better to safeguard investment by using appropriate pricing principles than by excluding particular technologies from the scope of the declaration.”

What would be the nature of any investment incentives?

Putting these conclusions aside, VHA has considered what such investments incentives could look like in practice if the ACCC were minded to consider them. VHA has the following observations:

- ***Equivalence of metro and regional:*** The ACCC would ideally be seeking to create incentives for network upgrades, by Telstra, in the Telstra monopoly areas. Generally, this suggests that Telstra should be under some kind of obligation to ensure equivalence of network quality and service between the Telstra monopoly areas and other areas in which mobile network competition existed. Such a requirement could be imposed as a condition on any benefit that Telstra received, such as a government subsidy or an access holiday.
- ***Access holidays:*** In the areas that would not otherwise be subject to network upgrades by Telstra, it may be appropriate to allow Telstra to apply for a temporary access holiday if it sought to upgrade its network in those areas. In this manner, Telstra would gain a temporary ‘first mover’ advantage to reward the investment. However, VHA is very concerned that such a procedure could be open for abuse. VHA also notes the criticism directed at such access holidays by Richard Feasey in his independent report. However, declaration with an access holiday mechanism would be better than no declaration at all, as currently exists in regional Australia.

In its independent report, Compass Lexecon expressed support for access holidays to offset any adverse effects on investment, if the ACCC were to identify any such adverse effects. Compass Lexecon explains in the following terms:⁴³

“Beyond appropriate wholesale access, other measures may also assist in preserving efficient incentives on the access provider, in particular access holidays where these are appropriately narrowly targeted and time-limited. An “access holiday” is simply a period of time during which a new infrastructure facility would not be subject to any access regulation; during this time, the owners of the new facility would be free of mandated access and other regulation. Access holidays may be appropriate in circumstances where it is difficult to preserve the correct investment incentives on the access provider through the wholesale access price; they can potentially operate as tools to remove economically inefficient delays in infrastructure investment by the access providers that would otherwise occur as a result of the regulatory truncation of profits problem. They do this by enabling the regulatory authority to overcome an

⁴³ Dr Derek Ritzmann, Domestic Mobile Roaming Declaration Inquiry Expert Report, 1 December 2016, page 30.

inability to commit to ex post access prices, which prevents a hold-up problem and enables the socially-desirable investment to proceed. It is important to note that the limited purpose of access holidays is to preserve the access provider's forward-looking investment incentives, which means that their application should be limited to certain upgrades and new sites at a maximum; they are not generally appropriate for already existing infrastructure.”

In summary, VHA is not persuaded by the need for any such mechanisms and submits that appropriate access pricing would deliver a more efficient outcome than the existence of any such mechanisms. However, if the ACCC were minded to consider such mechanisms, an access holiday may be one of the mechanisms that is most appropriate. If so, a condition of obtaining an access holiday should be that the access provider obtains sufficient equivalence between metropolitan and regional networks.

5. Questions on service description

(a) Service description

Q44. If the ACCC were to declare a mobile roaming service: (a) How should the service be described? (b) What would the appropriate geographic scope for the service be? (c) Should the service description be technology neutral or limited to certain technologies (e.g. 3G networks)? Please provide reasons for your views.

VHA identifies its views on the service description in section 7 of Part A of VHA's submission. To reduce the length of this submission, VHA does not repeat those submissions, but instead refers the ACCC to Part A of VHA's submission.

Q44.1 Service description

VHA submits that an appropriate service description for the mobile roaming service could be based on a combination of the ACCC's proposed definition in 2004, the approach adopted in New Zealand and the ACCC's current service description for the mobile terminating access service.

VHA proposes the following service description for the ACCC's consideration:

"Domestic Mobile Roaming Service

The **domestic mobile roaming service** is an access service that provides for digital mobile service subscribers of the access seeker to make digital mobile communications:

- (a) when the subscriber is located in specified geographic areas, by directly connecting to the digital mobile network of the access provider in those areas; and
- (b) for the purpose of enabling those subscribers to obtain digital mobile services on the access provider's digital mobile network that are equivalent to those provided to the access provider's own digital mobile service subscribers.

Definitions

Where words or phrases used in this Declaration are defined in the Competition and Consumer Act 2010, or the Telecommunications Act 1997 or the Telecommunications Numbering Plan 1997, they have the meaning given in the relevant Act or instrument.

Other definitions

Coverage area means *[insert technical definition]*

Digital mobile network is a telecommunications network that is used to provide digital mobile telephony services.

Digital mobile communications includes (without limitation) the carriage of voice calls, video calls, data traffic, short message service (SMS) messages, multimedia message service (MMS) messages and Internet access.

Metropolitan area means the areas described using the Hierarchical Cell Identification Scheme in the following table: *[insert table]*

National area has the meaning set out in the Radiocommunications (Spectrum Re-allocation) Declaration No. 1 of 2011.

Provides for includes the carriage of digital mobile communications between the customer equipment of the digital mobile subscriber and

- (a) a point of interconnection, or potential point of interconnection; and/or
- (b) the customer equipment of another end-user,

without a call terminating as the customer equipment moves between different digital mobile networks.

Point of interconnection is a location which:

- (a) is a physical point of demarcation between the access seeker's network and the access provider's digital mobile network, and
- (b) is associated with (but not necessarily co-located with) one or more gateway exchanges of the access seeker's network and the access provider's digital mobile network

Regional area means any part of the national area that is not a metropolitan area.

Specified geographic area means any part of the regional area outside the coverage area of the access seeker's digital mobile network that is within the coverage area of less than three digital mobile networks.

Short message service (SMS) is the provision of messages up to 160 characters of text using capacity in the voice signalling channel of a mobile network."

VHA highlights the following aspects of this service description for the ACCC's consideration:

- The service definition is technology neutral and technology agnostic, so the definition of 'digital mobile communications' is inclusive rather than exhaustive.
- The regional area is defined as entire geographic areas of Australia, less the metropolitan areas. The definition of metropolitan areas would be as identified by using the Australian Bureau of Statistics's Significant Urban Area standard.
- The geographic areas of the declaration is unique to each access seeker, being the areas outside the coverage area of the access seeker's digital mobile network. However, this area is also limited to the areas within the overlapping coverage area of less than three digital mobile networks.
- The definition of 'provides for' is intended to enable either an interconnection-based roaming solution or a resale-based roaming solution for calls originated on the roaming customer's device, at the option of the access seeker.
- The definition of 'provides for' is also intended to clarify that a call should not be terminated as the customer moves between different mobile networks. VHA would be concerned if such call continuity were not offered as it would impede the effectiveness of roaming arrangements.

Q44.2 Geographic scope

As identified in section 7 of Part A of this submission, as well as VHA's response to earlier questions in this Part B, VHA submits that the geographic scope of roaming should be those areas of regional Australia covered by less than 3 mobile networks. Where 'served' means circumstances where an end-user could connect to a mobile network to receive reasonable quality service from that mobile network using consumer devices of a kind that is widely available.

This view is consistent with the ACCC's own view as expressed in the Discussion Paper.

Q44.3 Technologies

VHA considers that the service description should be technology neutral. The objective of a roaming arrangement is to provide end-users with an equivalent level of functionality that they would receive on their own networks.

Accordingly, the standard access obligations should be permitted to apply to a roaming service on a technology agnostic basis to require equivalence of service.

The standard access obligations would then require that the access provider:

- takes all reasonable steps to ensure that the technical and operational quality (including ordering and provisioning) of the active declared service supplied to the service provider is equivalent to that which the access provider provides to itself; and
- takes all reasonable steps to ensure that the service provider receives, in relation to the active declared service supplied to the service provider, fault detection, handling and rectification of a technical and operational quality and timing that is equivalent to that which the access provider provides to itself.

For example, the service description adopted in New Zealand was not specific to any particular service, as follows:⁴⁴

“A service (and its associated functions) that enables transmission of cellular mobile traffic by means of the access provider's cellular mobile telephone network between (but not including) the cellular mobile device of the access seeker's end-user and the access seeker's handover point (or equivalent facility) and that enables an end-user who subscribes to an access seeker's cellular mobile service to use services (except value-added services) within the area where the access provider has a cellular mobile telephone network, but which is outside the coverage area of the access seeker's cellular mobile telephone network.”

In New Zealand, the concept of equivalence is underpinned by principles set out in section 5 of the *Telecommunications Act 2001 (NZ)* as follows, demonstrating the way this generic service description in New Zealand was reinforced by equivalence of service obligations:

“Principle 2: the service must be supplied to a standard that is consistent with international best practice;

Principle 3: the access provider must provide the service on terms and conditions (excluding price) that are consistent with those terms and conditions on which the access provider provides the service to itself;”

In Canada, the roaming service description included a similar equivalence requirement. The licence conditions currently applied in Canada include the following requirement:⁴⁵

⁴⁴ See Part 3, Schedule 1, Telecommunications Act 2001 (NZ).

⁴⁵ See <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf10563.html>.

“Roaming should provide a Roamer with the ability to access voice and data services offered by the Home Network at a level of quality comparable to that offered for similar services by the Licensee's Network.”

The New Zealand and Canadian experiences demonstrates that a similar solution could easily be adopted in Australia so that an access provider was required to provide a roaming service at a level of quality and functionality consistent with the access provider's own mobile retail services.

(b) Functional scope of roaming service

Q45. Should a declared mobile roaming service include mobile voice, SMS and data services?

Q46. Are there services that should be included or explicitly excluded? Please provide reasons to support your view.

The roaming service should include all services that enable the mobile subscriber to receive equivalent retail mobile services to the mobile services provided to the access provider's own retail mobile customers.

However, the roaming service should not include value-added services that are uniquely offered by the access provider to its own customers and that are not offered by the access seeker to its own customers (e.g. call centre services, voicemail services).

Please see VHA's response to ACCC Q44 above.

Given evolving technologies and the different functionality of 2G, 3G, 4G and potentially 5G services, VHA submits that a general concept of equivalence should be included. This is also reinforced by the standard access obligations. VHA's proposed service description above seeks to achieve this.

Q47. Are there other matters which should be explicitly set out in the service description?

Q47.2 Roaming should be seamless between networks

VHA also submits that the service description should also require seamless roaming which ensures a quality experience for end-user.

Specifically, that cellular handoff functionality is provided for roaming calls between different networks so that calls in progress do not drop out when a customer is handed between networks. Such functionality is technically feasible and part of most roaming arrangements globally.

Seamless roaming should also be required between spectrum bands and network technologies. This is technically possible given the current level of technology incorporated into consumer devices.

VHA would be concerned if such functionality were not offered as it would impede the effectiveness of roaming arrangements. VHA is aware that this was historically an issue in Canada.

(c) Appropriate access pricing

Q48. How is the setting of a regulated price for a declared mobile roaming service likely to impact competition in the mobile services market? Would the costs of accessing a declared roaming service likely to be passed onto consumers by access seekers and if so, in what form (e.g. higher retail prices)? Please provide reasons to support your view.

Q48.1 An optimal access price will promote competition and achieve efficient investment

As identified earlier in Part A of this submission, access pricing is critical to the realisation of economic efficiencies in the context of declaration, as well as maintaining investment incentives.

The Australian Competition Tribunal has already determined that if access prices are set at an efficient level that this will automatically lead to the achievement of efficient investment by access providers. Moreover, it will also promote competition in related markets.

Specifically, the Australian Competition Tribunal has held that, in general terms, efficient investment by an access provider in infrastructure will be achieved when the access provider is just able to recover the costs of such investment (inclusive of a normal return on its investment). The Australian Competition Tribunal reasoned in *Telstra Corporation Ltd (No 3)* (2007) ACompT 3 (at [159]):

“In general terms, efficient investment by an access provider in the infrastructure necessary to supply telecommunications services will be achieved when the firm is just able to recover the costs of such investment (inclusive of a normal return on its investment). If the firm is unable to recover the costs of efficient investment, it will not undertake such investment. If the firm can recover more than the costs of its investment, it will have an incentive to expand investment beyond efficient levels. 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 a declared service. An access provider will have several sources of revenue available to it to help it to recover its costs.”

The Australian Competition Tribunal also reasoned in *Re Seven Network Limited (No 4)* (2005) ATPR 42-056:

“Accordingly, a balance must be reached between allowing a reasonable, but not excessive, return to access providers. Reaching this balance will assist in encouraging both the efficient use of, and investment in, infrastructure. Such balance, in turn, is likely to promote competition in the long-term.”

VHA submits that if the access price is set an appropriate level, then this price will fully compensate Telstra for the costs of efficient investment. Accordingly, such a price will ensure that Telstra does not have a disincentive to invest. Moreover, such a price will also enable access seekers to acquire a service at wholesale in order to compete at retail.

As part of the Compass Lexecon report, Compass Lexecon independently addressed the specific question whether mandated roaming would encourage efficient use of infrastructure. Compass Lexecon reached the following conclusions, confirming the view of the Australian Competition Tribunal set out above:⁴⁶

“The conclusions expressed above rely significantly on a commensurate access price being determined. In the absence of an appropriate wholesale access pricing mechanism, detriments may arise. However, an appropriate wholesale access price can to a significant extent mitigate and countermand any potential detriments by preserving desirable and efficient investment incentives for the access provider; other measures such as targeted access holidays for upgrades or new sites can also potentially assist.

From a policy and economic efficiency perspective, the potential detriments are that mandatory access may give rise to a negative trade-off between static and dynamic efficiency. Specifically, while mandated access to mobile roaming services may stimulate competition in the short-run at the retail level, it may inefficiently reduce the access provider’s incentives to invest in infrastructure, in particular in the period where facilities-based competition is not yet viable. However, appropriate wholesale access pricing can mitigate a large proportion of this potentially detrimental effect.

First, an appropriate access price can preserve the access provider’s incentives to invest in quality upgrades of its own infrastructure, upgrades which benefit both the access provider and the access seeker. In particular, when the access seeker is operating in a differentiated market or is more efficient, investment spillovers may have a positive effect on access provider’s investment incentives. The fact that rivals also benefit from the investment is

⁴⁶ Dr Derek Ritzmann, Domestic Mobile Roaming Declaration Inquiry Expert Report, 1 December 2016, pages 28-30.

therefore not in itself detrimental to the access provider's investment incentives; there is no detrimental "free-rider" effect in this sense.

Second, the declaration of mobile roaming infrastructure can enhance the access provider's incentives to engage in efficient cost reduction, in particular if access prices are set at appropriately low levels. An appropriate access price can incentivize the access provider to invest more in cost reduction in order to maintain a competitive advantage at the retail level.

Third, the declaration of mobile roaming infrastructure can maintain appropriate incentives for the access provider to invest in extending its network reach. It is important to note that access providers commonly have two incentives for new investment in infrastructure: a stand-alone incentive; and a pre-emption incentive. The stand-alone incentive arises from the expected increase in profits after investment – absent strategic effects, firms would choose investment timing by trading off earlier gains in profit against lower investment costs later on. The pre-emption incentive to invest is the advantage from being the first to invest. If being a leader is more profitable than being a follower, then each firm has the incentive to pre-empt the other firm's investment. It is likely that both incentives exist in relation to the supply of mobile telecommunications infrastructure in regional Australia. It is therefore my conclusion that incentives to invest in network extension can be maintained if access is mandated in the presence of an appropriate wholesale access price."

The key point from Compass Lexecon's conclusions is that an appropriate access price can substantially mitigate a very large proportion of any adverse effects on investment.

Q48.2 What is an appropriate access price?

As the ACCC has identified in its Discussion Paper, the ACCC normally considers regulated pricing for a declared service in a public inquiry for making a final access determination (FAD) after a service is declared. As VHA understands it, the ACCC is therefore not seeking submissions on pricing at this time.

However, for the purposes of answering this question, VHA asked Frontier Economics to identify the type of pricing models that the ACCC could consider for the purposes of any FAD. This material is not intended to express a view by VHA on the merits of any particular pricing option at this time. Rather, it is intended to provide the ACCC with comfort that appropriate pricing can be identified using existing regulatory pricing models to achieve the optimal balance identified above.

Q48.3 Declaration will result in competitive pricing

The ACCC identified in its discussion paper that a third party had submitted that prices could rise in the context of a roaming arrangement. VHA does not consider this is correct:

- ***VHA's incremental revenues would exceed its incremental costs.*** VHA assumes that the access prices for roaming would be set at a level such that the incremental cost of VHA acquiring roaming from Telstra or Optus would not exceed the incremental revenue generated by VHA doing so. Consequently, VHA would fully recover its incremental costs of roaming within the incremental call revenue and hence there would be no need for VHA (or, for that matter, any other MNO) to increase prices.
- ***Intensification of retail competition:*** The ability of the rival MNOs to offer coverage including in Telstra's monopoly area would lead to an intensification of price competition. VHA's innovative offers and products and services would be available in regional Australia and to customers who currently have little choice but to use Telstra. VHA would expect that Telstra would launch some innovative offers in the market to seek to retain market share. As identified in detail in Part A of this submission, a significant intensification of competition should result. An intensification of competition is not conducive to a price rise. Overall, consumers can only be better off in a future with increased competition.
- ***VHA and Optus place effective competitive constraints on each other.*** VHA and Optus are fierce rivals and act as a competitive constraint on each other. Neither can profitably sustain an increase in prices above competitive levels. However, following declaration of roaming, Telstra will also be forced to respond to competitive pressure, resulting in intense competition between the three MNOs across all markets in Australia.
- ***Extended coverage could be optional for mobile consumers:*** If by some reason the wholesale roaming charges set by the ACCC were set at a level that exceeded the retail revenue VHA could generate, then VHA could still supply roaming to its customers as an optional service at a premium price. This seems an unlikely scenario, but the purposes of illustration VHA provides its views on this in any case:
 - By way of example, those customers that would wish to acquire roaming coverage would have the option to pay an incremental charge to cover the costs of acquiring the roaming service. This is exactly the way that VHA has structured its \$5/day 'take your home tariff with you' international roaming product. Customers who value international roaming have the choice to switch to take advantage of this product. When customers roam in one of the nearly 60 \$5/day countries (and VHA incurs

international wholesale roaming charges for the use of an international network), VHA charges the customer a flat additional rate of \$5/day in which international roaming is used.

- The same principles could be deployed in the context of domestic roaming. In this scenario, only those customers willing to pay for roaming would do so. There are many other examples of international MNOs who have structured innovative plans that include domestic roaming. Therefore, consumers will only be better off. However, VHA assumes that this fourth scenario is highly unlikely as the ACCC would not set a price for wholesale access that was higher than retail prices (as, by definition, this would constitute a vertical price squeeze).

Given the comments regarding pricing in the Discussion Paper, VHA asked telecommunications industry expert Richard Feasey to consider issues of pricing in his report. Richard Feasey commented in relation to the question asked by the ACCC:⁴⁷

“...As a general matter, I think it would be very odd (and wrong) for the ACCC to suppose that a measure which increases retail competition would leave even this category of consumers worse off than before. If firms in competitive markets could exploit consumers in this way, then mobile operators would force everyone to buy a very large bundle of data at a high price, even if most consumers did not need or value it. Or operators would force consumers to buy additional services like international roaming services even when they did not use or want them. But that simply does not happen in competitive mobile markets in my experience. Similarly, if Telstra could force consumers in metropolitan areas to pay for coverage which they did not want (as opposed to paying too much for coverage which they do want) then it would already be doing so and would be unlikely to support MVNOs who offer a service with reduced coverage.”

Richard Feasey concluded:⁴⁸

“I therefore find it very difficult to envisage any circumstances under which average mobile prices paid would rise as a result of the declaration, other than in response to changes in consumer preferences which meant that more consumers valued coverage more than before or that a larger proportion of consumers could now afford to buy greater coverage. In either and both cases, those consumers who chose higher price tariffs would be doing so because it made them unambiguously better off. Of course, some individual consumers may find

⁴⁷ Richard Feasey, Issues arising in relation to the ACCC's domestic roaming declaration enquiry, November 2016, paragraph 84.

⁴⁸ Richard Feasey, Issues arising in relation to the ACCC's domestic roaming declaration enquiry, November 2016, paragraph 85.

themselves on the wrong tariff or operator for their needs, but switching costs are relatively low in mobile and, to the extent that is a concern, it applies to both the factual (i.e. before the declaration) and the counterfactual (i.e. after) cases. Only if the ACCC thought that the declaration would allow all three operators to somehow collectively agree to withhold products which would otherwise better suit those who did not value coverage would the ACCC's assumption hold. But if that is the case, then the effect of the ACCC's declaration would be to reduce rather than increase retail competition and to facilitate tacit co-ordination amongst the three firms. That seems to me so far fetched as not to merit further consideration."