



AUSTRALIAN COMPETITION  
& CONSUMER COMMISSION

# Domestic mobile roaming declaration inquiry

## Final report

October 2017

Australian Competition and Consumer Commission  
23 Marcus Clarke Street, Canberra, Australian Capital Territory, 2601

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## 1. Executive summary

The Australian Competition and Consumer Commission (ACCC) has concluded its public inquiry into whether to declare a domestic mobile roaming service. The ACCC is not declaring a domestic mobile roaming service as we are not satisfied that the declaration would promote the long-term interests of end-users (LTIE).

Regional communications have been a central focus of this inquiry. Mobile coverage and quality of services are vital issues for consumers and businesses in regional, rural and remote areas of Australia.

The productivity potential of further investment and network improvements in these areas is significant. With this in mind, while the ACCC has considered the impact of declaration on the national market, we have examined the effect roaming would have on competition, and its implications for regional consumers. We have also examined how declaration would impact incentives for mobile network operators (MNOs) to continue to invest in these areas.

This report sets out our findings on the three objectives to which the ACCC has had regard during the public inquiry in considering whether declaration would promote the LTIE. These are:

- whether declaration would promote competition in the relevant markets;
- whether declaration would achieve any-to-any connectivity; and
- whether declaration would encourage the economically efficient use of, and investment in infrastructure.

Our conclusions on each of these objectives are as follows.

### **Would declaration of a mobile roaming service promote competition in the relevant markets?**

- We find that declaration would not promote competition in the retail mobile services market to a significant extent. MNOs compete across a range of factors, including the extent of network coverage, the quality (i.e. depth) of coverage in areas where they provide services, retail support, price and service inclusions (e.g. data inclusions, free voice calls and SMS). We found that overall geographic coverage is not the primary driver of competition, nor is it essential for MNOs to have equal geographic coverage to compete effectively in the market. Declaration would remove Telstra's competitive advantage in geographic coverage, but would not significantly reduce Telstra's competitive advantage on other factors, such as network quality.
- Removing geographic coverage as a point of differentiation would likely reduce the benefits that an MNO gains from extending its network beyond that of its rivals. We consider that Telstra's and, to a lesser extent, Optus' superior network coverage is an outcome of the competitive dynamics in the market and declaration would reduce these dynamics. Networks that differ from each other in terms of coverage, technology and quality provide more choice for consumers and more competitive tension between operators. Declaration would have the effect, therefore, of reducing competition over this dimension of rivalry between MNOs such that it would be likely to distort long-term competitive dynamics and reduce incentives for MNOs to differentiate their services in this way.
- The impact of declaration on retail prices is uncertain. Some downward pressure may be placed on Telstra's prices in the short term, but Optus and VHA would have incentives to

increase their prices to reflect the greater costs they would be likely to face if they acquired a mobile roaming service. We also found that Telstra is likely to be already constrained in its pricing to some degree.

- TPG's entry into the market is likely to create more competitive tension, which would mitigate the risk of price rises. However, declaration could encourage MNOs to consider moving away from uniform national pricing. That is, MNOs could raise prices in regional areas to reflect the additional costs of providing services in these areas, while competing on price in more populated areas.
- The ACCC has considered whether declaration would assist a new entrant such as TPG. We expect that a roaming service in areas where Telstra, Optus and VHA have coverage would be of more assistance to a new entrant when it is rolling out its network. As such, we fully expect that a roaming agreement could be negotiated with a new entrant by any of the existing MNOs. A new entrant does not need to have a network that has equal geographic coverage with other MNOs in order to compete.

### **Would declaration of a mobile roaming service achieve any-to-any connectivity in relation to carriage services that involve communication between end-users?**

- We find that this criterion should be given little, if any, weight in our assessment of whether declaration would promote the LTIE. Declaration of a mobile roaming service is not likely to achieve any-to-any connectivity because interconnection arrangements are already in place between the three MNOs. Interconnection allows a consumer on one network to communicate with consumers on another network.

### **Would declaration of a mobile roaming service encourage the economically efficient use of, and investment in, infrastructure?**

- We find that declaration may result in some efficiency gains by allowing access seekers to use the excess capacity available on the access provider's existing infrastructure in regional and remote areas. However, declaration is unlikely to promote the efficient use of infrastructure more generally.
- However, we found that Telstra and Optus, and to a lesser extent, VHA, are currently competing on network quality. Declaration has the potential to distort these current investment incentives. Optus and VHA may not have the same incentives to match or better Telstra's network quality and Telstra may not have the same incentives to respond if a mobile roaming service is declared. As such, we have concluded that declaration would not promote economically efficient investment in infrastructure.

### **Measures to improve outcomes for regional Australia**

While the ACCC is not satisfied that declaring a mobile roaming service would promote the LTIE, it recognises that in many parts of regional, rural and remote Australia, consumers and businesses cannot access adequate or contiguous mobile services. This has social and economic implications.

During the inquiry, we identified specific matters that could be improved in order to encourage more competition in regional areas or to address poor coverage. We have set these matters out in a separate report *Measures to address regional mobile issues* with proposed actions that could be taken by the ACCC, by government and by industry.

The ACCC encourages government and industry to engage actively with these measures. The ACCC considers that ensuring the right framework and policies are in place is essential

for regional Australians to realise the benefits of new services and technologies, which have the potential to deliver significant productivity gains.

## 2. Introduction

The Australian Competition and Consumer Commission (ACCC) has been conducting an inquiry into whether to declare a domestic mobile roaming service (mobile roaming service) (the inquiry).

The ACCC has conducted the inquiry to determine whether declaring a mobile roaming service would promote the long-term interests of end-users (LTIE). As part of the inquiry the ACCC has considered whether the differences in geographic coverage provided by the three mobile networks are impacting competitive and efficient outcomes in the mobile services market.

Under section 152AL(3) of the *Competition and Consumer Act 2010* (Cth) (CCA), the ACCC may declare a specified eligible service following a public inquiry under Part 25 of the *Telecommunications Act 1997* (Cth) (Telco Act). In doing so, the ACCC must be satisfied that the making of the declaration would promote the LTIE of carriage services or of services provided by means of carriage services.

This report sets out the reasons for the ACCC's conclusion that it is not satisfied declaration of a mobile roaming service would promote the LTIE.

### 2.1. Background to the ACCC's inquiry

#### 2.1.1. Differences in geographic and population coverage

There are three mobile networks in Australia operated by Telstra Corporation Limited (Telstra), Singtel Optus Pty Limited (Optus), and Vodafone Hutchison Australia Pty Limited (VHA), operating as Vodafone, which have different geographic footprints. Telstra's network has the largest coverage footprint, at over 2.4 million square kilometres. Optus is the second largest, at around one million square kilometres and VHA's network has the smallest geographic coverage at around 600,000 square kilometres. Under its roaming agreement with Optus, VHA's network coverage increases to 900,000 square kilometres.<sup>1</sup>

However, each network is more similar in terms of population coverage. Telstra's 3G network covers around 99.3 per cent of the population, Optus' 3G network covers around 98.5 per cent of the population and VHA's 3G network covers around 95.7 per cent of the population. Under its roaming agreement with Optus, VHA is able to offer 3G network coverage to around 97 per cent of the population.

The low population density and large size of regional Australia mean that mobile network operators (MNOs) must incur significant costs to extend population coverage by a small amount in regional areas. This is because they must cover large areas to achieve only a small increase in population coverage. For instance, Telstra covers only 0.8 per cent more of the population than its competitors but its network is over one million square kilometres larger than the next largest network.

Because of the differences in geographic coverage between the MNOs, there are areas where all three MNOs have coverage (three-MNO areas), areas where only Telstra and Optus have coverage (Telstra-Optus areas) and areas where only Telstra has coverage (Telstra-only areas).<sup>2</sup>

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<sup>1</sup> TPG has also announced its intention to enter the mobile services market as the fourth MNO and to build a network covering up to 80 per cent of the population within three years.

<sup>2</sup> In practice, there are likely to be small pockets of areas where Optus or VHA has unique coverage. However, these areas are likely to be less significant for the purpose of this inquiry.

The ACCC considers that the difference between geographic coverage and population coverage is likely to impact the competitive dynamics between the MNOs and their investment incentives. In areas of high population density, such as metropolitan and large regional centres, there tends to be stronger infrastructure-based competition between the three MNOs. This is because the higher level of population density in these areas means there is likely to be more network usage over which the fixed costs of providing coverage can be recovered. This enables an MNO to reach minimum efficient scale – and therefore be profitable – at a lower share of mobile consumption made in these areas. However, in areas of low population density, particularly regional and remote areas, investment to extend coverage is less likely to be profitable for multiple network operators. There are fewer customers and to some degree, their needs for more contiguous coverage over greater areas are higher. This has meant that there tends to be less infrastructure-based competition in these regions, and consumers can generally only obtain reliable mobile services from either one, or in some areas, two network operators.

Historically, Telstra has been the prominent service provider for regional and remote consumers. This is due to several reasons. First, as the government-owned fixed service provider, Telstra (then known as Telecom) built the first cellular network using analogue AMPS technology. When 2G GSM technology was introduced, the less efficient AMPS network was to be phased out. However, due to coverage limitation issues with GSM technology, Telstra was required to design and build a digital network that was capable of matching the AMPS regional coverage footprint, which it did with CDMA technology. This resulted in Telstra having the most extensive network in regional and remote Australia.

Second, when Telstra introduced its NextG 3G network, the then Minister for Communications imposed a carrier licence condition on it requiring it to provide NextG coverage equivalent to its CDMA network before it was allowed to shut down the CDMA network.<sup>3</sup> At that time, CDMA was still the most widely used technology in regional Australia, and as such many regional consumers using Telstra's CDMA network moved to Telstra's NextG network. When NextG was launched in 2006, the network covered 98.3 per cent of the population, compared with CDMA's coverage of approximately 98 per cent. In comparison, it took Optus until 2016 to reach the same network coverage.

### **2.1.2. The ACCC's previous consideration of mobile roaming services**

The ACCC has considered whether to declare a mobile roaming service on two previous occasions. The ACCC held its first inquiry to examine the issue in 1998.<sup>4</sup> In that inquiry, the ACCC decided not to declare the service as it considered that the competitive benefits from mobile roaming services would be realised without regulatory intervention because these services were being provided on a commercial basis.

The second inquiry was held in 2004 and found that while mobile roaming was pro-competitive, declaration was not necessary to ensure that its competitive benefits were realised given the commercial supply arrangements in existence. Consequently, the ACCC was not satisfied that declaration would promote competition. While the ACCC found, at that time, that declaration of a mobile roaming service would encourage the economically efficient use of and investment in infrastructure, it also found that declaration was not necessary to achieve these objectives. Overall, in 2005, the ACCC was not satisfied that declaration of a mobile roaming service was in the LTIE owing to the competitive conditions in the market.

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<sup>3</sup> *Carrier Licence Conditions (Telstra Corporation Limited) Declaration 1997*, 18 September 2007, p. 12, available at: <https://www.legislation.gov.au/Details/F2007C00688>.

<sup>4</sup> ACCC, *Inquiry into domestic intercarrier roaming declaration*, March 1998.

The ACCC has commenced this inquiry in response to various public inquiries and reports that have raised concerns about the limitations of infrastructure-based mobile telecommunications competition in regional Australia. Some of those inquiries have questioned whether mobile roaming services and infrastructure sharing could improve competition. Representatives of regional communities have also asked the ACCC to examine mobile roaming to address coverage and competition concerns. In addition, some industry members have raised concerns with the ACCC about the provision of wholesale mobile services in regional Australia, and suggested that the ACCC could examine these as part of a declaration inquiry.

## 2.2. Inquiry process

On 26 October 2016, the ACCC commenced public consultation for the inquiry by releasing a discussion paper under Part 25 of the Telco Act entitled *Domestic Mobile Roaming Declaration Inquiry, Discussion Paper, October 2016* (discussion paper).<sup>5</sup> This paper sought views on a range of issues relevant to the inquiry.

On 5 May 2017, the ACCC released a draft decision in which it proposed not to declare a mobile roaming service (draft decision).<sup>6</sup>

The ACCC received 145 submissions to the discussion paper and 81 submissions to the draft decision from a range of stakeholders including industry participants, local governments, regional and industry associations, consumer representatives, businesses and consumers. The three MNOs have provided submissions, which include expert reports and analysis as well as supplementary submissions in response to each other's submissions. The public versions of all submissions received in this inquiry, as well as the discussion paper, draft decision, an expert report obtained by the ACCC, and this final report, are available on the [ACCC's website](#). The ACCC has had the benefit of all stakeholders' views in reaching its conclusions in the final report.

The ACCC also sought information from industry stakeholders and consulted informally with a number of interested parties including regional representatives, both before and after the publication of the draft decision.

In making the findings and reaching the conclusions set out in this final report, the ACCC has considered and had regard to the submissions and evidence in support of those submissions that it received both in relation to the discussion paper and the draft decision, and to the information it received from industry stakeholders and information it obtained through informal consultation with interested parties during the course of the inquiry.

The ACCC wishes to thank industry and representative groups for their assistance and cooperation throughout the inquiry.

## 2.3. Structure of the report

The report is presented in two parts. The first part, which consists of Sections 3, 4 and 5, sets out the regulatory framework and explains the ACCC's assessment approach for declaring a service. It also identifies the relevant markets for this inquiry and the current state of competition in the relevant markets, for the purpose of undertaking its analysis of the three objectives to which it has had regard in determining whether declaration would promote the LTIE.

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<sup>5</sup> ACCC, *Domestic mobile roaming declaration inquiry: Discussion paper*, October 2016. (ACCC, Discussion paper)

<sup>6</sup> ACCC, *Domestic mobile roaming declaration inquiry: Draft decision*, May 2017. (ACCC, Draft decision)

The second part, which consists of Sections 6 to 9, examines whether declaration of a mobile roaming service would promote the LTIE. Section 6 considers whether declaration would achieve the objective of promoting competition; Section 7 considers whether declaration would achieve any-to-any connectivity; and Section 8 examines whether the objective of encouraging the economically efficient use of, and economically efficient investment in, infrastructure would be achieved through declaration. Section 9 provides the ACCC's conclusion on whether declaration of a mobile roaming service would promote the LTIE.

Appendix A to this document provides a more detailed outline of the legislative and assessment framework the ACCC follows in conducting an inquiry into whether to declare a specified eligible service.

## 2.4. Measures to address regional mobile issues

A key consideration for the ACCC throughout this inquiry has been the availability and quality of mobile services in remote and regional areas. Consumers and businesses in these regions have expressed concern that the quality of mobile services is inadequate for their needs.

In the draft decision, the ACCC sought views from stakeholders on regulatory and policy measures which could address concerns about mobile services in regional areas. Many stakeholders responded to the ACCC on these matters with their views on the measures discussed in the draft decision and other suggestions. The ACCC has considered these submissions and provided its views on these measures in a separate paper *Measures to address regional mobile issues*, which is released with this final report. We have proposed a number of actions to progress these matters which we will do separately to this inquiry.

### 3. The regulatory framework and the ACCC's assessment approach

Australians rely on the market economy to provide positive outcomes for their prosperity and welfare. Competition can assist in delivering the goods and services consumers want at the prices they are willing to pay. However, the market economy is not perfect. Consumer welfare can be undermined, especially in some areas relating to the provision of infrastructure services, where there are monopoly suppliers.

In situations where this occurs, the ACCC can have a role in providing effective economic regulation that will protect, strengthen and supplement competitive market processes to improve the efficiency of the economy and increase the welfare of Australians over the long-term. Part XIC of the CCA contains specific provisions which allow the ACCC to intervene in the telecommunications markets where to do so, would promote the LTIE.

#### 3.1. What is a mobile roaming service?

Mobile roaming services allow mobile subscribers of one network to use their mobile phones for calls, text messages and data services on another network in Australia when outside the coverage area of the network to which they subscribe. A mobile roaming service essentially allows an MNO to provide mobile services outside of its network footprint.

There are three key parts of a mobile network: the radio access network, the transmission (or backhaul) network, and the core network.

The radio access network connects end-users to the mobile network. It consists of radiofrequency spectrum and mobile base stations (including towers). The transmission network connects mobile base stations or towers to the core of the mobile network, using fibre optic cable or other technologies, like microwave links. The core of the network, which is usually located in capital cities, performs functions such as switching, and is where interconnection takes place.

MNOs can invest to improve their mobile networks in at least two main ways. First, an MNO can upgrade its mobile network technology in areas where it currently has network coverage. This often involves upgrading equipment located at mobile towers, or increasing transmission capacity. The rollout of 4G mobile networks across large parts of Australia is an example of MNOs' investment to upgrade to new generation technology.

The second type of investment that an MNO can make is to increase the number of mobile sites in order to extend its network reach (i.e. geographic coverage) or increase its coverage depth. This will usually require greater expenditure than network upgrades, because an MNO will need to establish new base stations, and new transmission links to connect these base stations back to the core of their network.<sup>7</sup>

A mobile roaming service allows an MNO to expand the geographic coverage it can offer its customers without having to invest in building its own mobile sites and other related infrastructure, by accessing another MNO's network infrastructure.

This section provides more information on the legal and regulatory framework for access to telecommunications services in Australia and, in particular, the LTIE test.

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<sup>7</sup> The ACCC has declared the domestic transmission capacity service (DTCS) in certain areas and set regulated access prices.

## 3.2. Regulatory framework

There is no general right to access telecommunications services in Australia, and access is usually unregulated unless the ACCC has made a decision to declare the service.<sup>8</sup>

The ACCC may hold a public inquiry about a matter relating to the ACCC's telecommunications powers and functions.<sup>9</sup> This broad power allows the ACCC to inquire about a range of matters, including about a proposal to declare a service.

For example, in this instance, the ACCC purposely conducted a wide-ranging inquiry about a proposal to declare a mobile roaming service. The primary issue, as stated in the ACCC's initial discussion paper, is whether the differences in geographic coverage between the networks have led to reduced competition and whether declaration of a roaming service would address this. The ACCC began by considering a range of issues to determine the nature of competitive dynamics in the markets relevant for mobile roaming services. The ACCC's preliminary finding was that differences in coverage have not led to reduced competition. Rather, the mobiles markets are exhibiting effective competition. Further, it is not clear that Telstra's retail pricing and market shares are, solely or predominantly, the result of its superior geographic coverage. However, it is important to note that this finding is not determinative of an outcome of whether or not to declare a roaming service.

The ACCC then considered the relevant question of whether declaration of a mobile roaming service would promote competition, any-to-any connectivity and efficient investment in and use of infrastructure. These are objectives to which the ACCC must have regard in considering whether declaration would promote the LTIE. If a service is declared, an access seeker can seek access to that service and the access provider (the owner of the service or facility) must provide access in accordance with the access obligations set out in the CCA.<sup>10</sup> The ACCC may only declare a service after holding a public inquiry and it is satisfied that declaration would promote the LTIE.

As noted above, in deciding whether declaration would promote the LTIE, the ACCC must consider the extent to which declaration is likely to result in the achievement of the following three objectives:

- promote competition in markets for carriage services and services supplied by means of carriage services;
- achieve any-to-any connectivity, and
- encourage the economically efficient use of, and investment in, infrastructure by which the services are supplied.<sup>11</sup>

The ACCC must only have regard to the above objectives when determining whether declaration would promote the LTIE. Each of these objectives is discussed in more detail below.

Whilst the ACCC has considered the LTIE test as part of this inquiry, we note that the ACCC is only required to apply the test if it decides to declare a specified eligible service.

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<sup>8</sup> *Competition and Consumer Act 2010* (CCA), section 152AL subject to some specific provisions in relation to the national broadband network (NBN).

<sup>9</sup> *Telecommunications Act 1997*, section 497.

<sup>10</sup> CCA, section 152AR.

<sup>11</sup> CCA, section 152AB.

### **3.2.1. Promoting competition**

To determine whether declaration would promote competition, the ACCC will:

- identify and define the relevant markets;
- assess the current state of competition in those markets; and
- assess how declaration may affect competition in those markets in the future.

In identifying the relevant markets, the ACCC will consider the market(s) which are relevant to the supply of the service and any downstream markets which may rely upon this service. The ACCC will generally give most attention to the markets for downstream (or retail) services, as these (rather than the upstream or wholesale markets) are usually the markets in which declaration may promote competition.

When assessing the current state of competition in a relevant market, the ACCC will consider a number of factors including market share and concentration levels, whether there are any barriers to entry, and any dynamic market characteristics such as growth, product differentiation and the potential for new competition to emerge.

In considering the effect that declaration would have on competition in relevant markets, the ACCC will consider the likely future state of competition in the relevant market, with and without declaration of the service. Among other things, this will require consideration of whether declaration would establish conditions under which competition will be improved and whether these conditions are likely to develop in the future without declaration.

### **3.2.2. Achievement of any-to-any connectivity**

Declaration of a service would promote any-to-any connectivity if it allows end-users of a carriage service to communicate with other end-users, whether or not they are connected to the same network. This is particularly relevant when considering services which require interconnection between different networks.

### **3.2.3. Economically efficient use of, and investment in, infrastructure**

The ACCC must have regard to a number of matters when assessing whether declaration would promote the economically efficient use of, and investment in, telecommunications infrastructure. The ACCC must consider:

- whether it is technically feasible to supply and charge for the service
- the legitimate commercial interests of suppliers of the service, and
- the incentives for investment in the infrastructure used to supply the service under consideration.<sup>12</sup>

When considering incentives for investment in infrastructure, the ACCC will consider how declaration may impact incentives for investing in existing infrastructure as well as how it may impact decisions about maintenance, improvement and extension of this infrastructure, and investment in new infrastructure.

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<sup>12</sup> CCA, section 152AB(6).

## **Further information**

Further information about the legislative assessment framework is set out at Appendix A.

The ACCC's [Guideline to the declaration provisions for telecommunications services under Part XIC of the Competition and Consumer Act 2010](#) (ACCC Declaration Guideline) also provides further guidance about the declaration process and the ACCC's general approach to declaration decisions.

## 4. The relevant markets for mobile roaming

### Key points

- When determining whether declaration would promote the LTIE, the ACCC examines the state of competition in relevant markets and whether declaration would promote competition in those markets. The ACCC finds that there is a separate market for wholesale mobile roaming services and a separate national retail market for mobile services and that both are relevant markets for the purposes of assessing the potential impact of declaration.
- The ACCC finds that the wholesale roaming service market is a separate market as there are no effective substitute services for a wholesale roaming service in regional Australia. The ACCC also finds that the state of competition and the nature of available services in the market for wholesale roaming services differ depending on the area where they are offered as wholesale roaming services are not homogeneous.
- The ACCC finds that there is a separate retail mobile services market as there are currently no effective substitutes for mobile retail services, which include voice, SMS and broadband services wherever an MNO has network coverage. This is because other communication services do not allow consumers to use these services in different locations. The ACCC also remains of the view that this is a national market, at least for the purpose of this inquiry. This is because an MNO's coverage in regional Australia influences demand for its services in metropolitan areas, and competition in metropolitan areas impacts the prices of services available to consumers in regional areas due to nationally consistent service offerings. While the ACCC has found that this market is a national market, it has observed variations in competitive dynamics across geographic regions within that market.
- The ACCC does not consider there are separate relevant markets for the supply of services to mobile virtual network operators (MVNOs) and the supply of the Internet of Things (IoT) or machine-to-machine (M2M) services for the purposes of this inquiry. The ACCC did not receive evidence that would support a finding that there are competition issues in the wholesale supply of mobile services to MVNOs which could potentially be addressed by declaration. The ACCC considers it is premature to assess how declaration of a mobile roaming service would impact the supply of IoT and M2M services as they are still in an early stage of development. For these reasons, these markets are not relevant for the purposes of assessing whether to declare a mobile roaming service.

In determining whether declaration would promote the LTIE, the ACCC has considered, among other things, the extent to which declaration would promote competition in the relevant markets.<sup>13</sup> To consider whether declaration would promote competition, the ACCC has identified the relevant markets as being:

- the market for wholesale mobile roaming services, and
- the national mobile services market, noting that there are variations in each of the MNO's ability to provide mobile services in different regions of Australia.

Part XIC of the CCA does not require the ACCC to precisely define the boundaries of the relevant markets for the purpose of a declaration inquiry. Instead, market analysis under Part

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<sup>13</sup> CCA, section 152AB(2).

XIC should be seen in the context of shedding light on how declaration would promote competition for the purposes of this inquiry. Further, as market definition is purposive, defining a market in a particular way in a declaration inquiry does not prevent the ACCC from defining this market differently in other contexts. Accordingly, the ACCC considers it sufficient to broadly identify the markets likely to be affected by declaration, having regard to the product, function, geographic and temporal dimensions of the market.<sup>14</sup>

## 4.1. The relevant markets

### 4.1.1. The ACCC finds that the wholesale roaming market is a separate market

The ACCC's preliminary view was that there is a separate market for wholesale roaming services, that is, the market in which wholesale roaming services are supplied by one MNO to another. The ACCC also considered that the state of competition and the nature of available services in the market for wholesale roaming services differ depending on the geographic area where these services are offered. The ACCC concluded that, in general, there are no effective substitute services for a wholesale roaming service in regional Australia.<sup>15</sup>

The ACCC found co-location is not an effective substitute for a wholesale roaming service in the Telstra-only areas due to significant costs incurred in extending a network into these areas, and the time it may take to establish new infrastructure.<sup>16</sup> In contrast, a roaming service allows an operator to offer a retail service in areas in which it does not have coverage immediately and without substantial capital expenditure.

However, the ACCC's preliminary view was that a mobile roaming service is not an essential input into retail mobile services as a network operator can extend its own network into an area in order to provide a service.<sup>17</sup>

Most submissions in response to this preliminary view on the relevant markets focused on the retail services market. However, Telstra supported the preliminary view that there is a separate market for wholesale roaming services. Telstra also agreed that a mobile roaming service is not an essential input into retail mobile services, as a network operator can extend its own network into an area in order to provide a mobile service.<sup>18</sup>

Optus disagreed with the preliminary view that infrastructure sharing is not an effective substitute in Telstra-only areas. Optus submitted that infrastructure sharing and co-location arrangements can increase the efficiency of infrastructure rollout, albeit with some geographic variation, making it an effective substitute for wholesale roaming services. Optus also considered geographic variances in network coverage and availability are insufficient to disaggregate wholesale roaming services into discrete geographic areas, and therefore did not consider there is a specific market for roaming in Telstra-only areas.<sup>19</sup>

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<sup>14</sup> ACCC, *A guideline to the declaration provisions for telecommunications services under Part XIC of the Competition and Consumer Act 2010*, August 2016, pp. 33–34. (ACCC Declaration Guideline)

<sup>15</sup> ACCC, Draft decision, p. 15.

<sup>16</sup> Co-location refers to an MNO putting its radio access network equipment on the physical facility of another MNO's or a third party's instead of building its own mobile site.

<sup>17</sup> ACCC, Draft decision, p. 15.

<sup>18</sup> Telstra, *Response to the ACCC's domestic mobile roaming declaration inquiry – Draft Decision*, 16 June 2017, p. 7 (Telstra, Submission to draft decision).

<sup>19</sup> Optus, *Submission in response to ACCC Draft Decision*, June 2017, p. 19–20 (Optus, Submission to draft decision).

The ACCC considers that co-location can be useful to build mobile networks at a reduced cost in some areas. However, it does not consider it to be a close substitute for roaming in the market for mobile roaming services. Co-location still involves significant network build costs (including costs in acquiring spectrum to be used in areas of deployment) and may take time to establish new infrastructure. Roaming services on the other hand, provide an operator with immediate entry into an area without substantial capital expenditure. Therefore, although co-location is an important element in rolling out mobile networks in Australia, the ACCC does not consider it to be a close substitute to mobile roaming services. As such, it should not be considered in the market for wholesale roaming services.

The ACCC also maintains the view that wholesale roaming services are not homogenous, as access providers have different incentives to offer wholesale roaming services and access seekers have different needs for a roaming service. The ACCC also notes that the extent of geographic coverage over which one MNO will provide roaming to another is negotiable, as is the timing at which a MNO will make a certain type of roaming available to a competitor. For instance, Optus does not provide VHA with access to its entire network coverage area under their roaming agreements, and an MNO may not provide access to roaming at the latest network generation (e.g. 5G/4G/3G etc.) under commercial roaming agreements.

Therefore, the nature of available services in the market for wholesale roaming services can differ depending on the specific agreement between the parties.

#### **4.1.2. The ACCC finds that there is a national mobile services market and that there are geographic variations within that market**

The ACCC's preliminary view was that the relevant downstream market is the retail mobile services market, as a roaming service would be an input into a retail mobile service. We also found there is likely to be a separate market for mobile services as there are currently no effective substitutes for a mobile retail service (which includes voice, SMS and broadband services). Other communication services do not allow consumers to use these services in different locations. The ACCC has considered matters raised in submissions but remains of the view that there is likely to be a separate retail mobile services market for the purposes of this inquiry.

Further, the ACCC expressed the preliminary view that the retail mobile services market is a national market, rather than a series of separate regional mobile services markets.

The ACCC noted in its preliminary view that there are some factors indicating there are separate regional markets. Consumers who reside in regional areas cannot substitute a service offered by one MNO for another where there is only one MNO offering coverage. Also, a service provider cannot immediately respond to a price increase by a rival who offers services in an area if it does not have coverage in that area. However, the ACCC considered the factors supporting the finding that the retail mobile services market is a national market outweighed the above factors. In summary, the ACCC's preliminary view was that:<sup>20</sup>

- Mobile services are provided to consumers by their MNOs on a national basis. Consumers are able to use their services in any part of Australia where their service provider has coverage and, aside from differences in available technology, services do not generally differ based on where a consumer resides and are not advertised as being specifically metropolitan or regional.
- Service providers set prices on a nationally consistent basis, offering the same range of retail services in all areas where they have coverage at the same price.

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<sup>20</sup> ACCC, Draft decision, pp. 17–19.

- Service providers compete nationally for market share and geographic coverage is just one element on which they compete.
- Investment decisions to extend coverage factor in additional revenues expected to be gained from both consumers who reside in the area to be covered and other consumers who value or require coverage in that area. Additionally, MNOs may invest in areas in which they may make a loss on a standalone basis in order to gain additional revenue from other consumers who value wide coverage.

Telstra supported the preliminary view that the market for retail mobile services is a national market. Telstra noted that mobile services are provided on a national basis at nationally uniform prices, MNOs compete nationally for market shares regardless of geographic coverage, and indirect revenues from metropolitan customers drive investment decisions to extend coverage in regional and rural areas. Therefore, Telstra considered the ACCC was correct to find that the relevant market is the national retail mobile services market.<sup>21</sup>

Optus also supported the ACCC's preliminary view that the market for retail mobile services is a national market. Optus submitted that all downstream services supplied to end-users are geographically agnostic and that there is no geographic differentiation in mobile plan prices. Optus also agreed that MNOs compete for market share on a national basis.<sup>22</sup>

VHA, however, disagreed with the ACCC's preliminary view. It submitted that there is limited substitutability on both the supply and demand side in regional areas.<sup>23</sup> VHA also submitted that Australian advertising for retail mobile services in some instances targets specific geographic locations and noted international examples in which markets were defined as local.<sup>24</sup> VHA stated that the ACCC failed to properly consider substitution, which "fundamentally undermines the ACCC's analysis on market definition – and hence the ACCC's conclusions overall."<sup>25</sup> VHA also argued that by considering the mobile services market as a national market, the ACCC had diluted the interests of regional consumers.<sup>26</sup>

The ACCC does not agree with VHA's claims in this respect. As noted above, market definition is purposive and its role is to define the parameters within which the competitive dynamics of the relevant market can be assessed. This means that the ACCC's approach to market definition focuses on the specific facts and circumstances of the inquiry at hand, current evidence from market participants, and is assessed on a case-by-case basis.<sup>27</sup>

The ACCC has examined both demand and supply side considerations, noting geographic variations of substitutability. We note, for instance, that for those that require or value coverage in areas where only one MNO has coverage, the services offered by that MNO cannot be substituted with services provided by another MNO. On the other hand, the ACCC considers that an MNO's coverage in regional Australia influences demand in metropolitan areas, and competition in metropolitan areas impacts the price of services available to consumers in regional areas due to nationally consistent service offerings. This means that the impact of declaration on competition in any particular area cannot be considered in isolation. Further, while advertising may be nuanced and localised to certain areas, services

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<sup>21</sup> Telstra, Submission to draft decision, p. 7.

<sup>22</sup> Optus, Submission to draft decision, p. 20.

<sup>23</sup> VHA, *Vodafone Hutchison Australia Pty Ltd submission to the Australian Competition and Consumer Commission*, Attachment D, 16 June 2017, p. 7–11 (VHA, Submission to draft decision).

<sup>24</sup> *ibid.* pp. 11–19.

<sup>25</sup> VHA, Submission to draft decision, Attachment D, p. 1.

<sup>26</sup> VHA, Submission to draft decision, Attachment B, p. 3.

<sup>27</sup> ACCC, *Merger Guidelines*, November 2008, p. 16.

are not differentiated and advertised as being either a specifically metropolitan or regional service.

VHA's proposed approach of segregating markets into different cities and different regions would make it difficult, if not impossible, to accurately assess the state of competition in the relevant markets and the impact of declaration.

To illustrate by way of example, if we assume that each of the Telstra-only areas is an individual relevant market, then we would find that Telstra has a monopoly in each market. However, the market outcomes in these areas do not reflect those that would normally prevail in markets with monopolies. Importantly, Telstra does not set monopoly prices in these markets in order to extract maximum value from consumers who do not have a choice of provider other than Telstra. This is because under uniform national pricing, the prices Telstra sets will have an impact on all of its customers, including those outside these areas and Telstra has to take into account the response of those consumers in setting its prices.<sup>28</sup>

Defining a geographically segmented market would not facilitate an assessment of competition such that the ACCC would be able to properly assess whether declaration would be likely to promote competition in a relevant market.

On the other hand, defining the mobile services market as national allows the ACCC to consider differences in competitive dynamics across geographic regions and to properly assess the impact of these differences on market outcomes. By doing so, it can consider whether declaration would promote competition in a relevant market.

For the reasons discussed above, the ACCC remains of the view that the relevant market is the national retail mobiles services market while noting there are geographic variations within that market.

#### **4.1.3. Other markets**

The ACCC sought additional views on whether it should consider a separate wholesale market for the supply of mobile services to MVNOs and the downstream market for the supply of M2M and IoT services.

The ACCC did not consider these markets constitute relevant separate markets for the purposes of assessing the impact of declaration in its preliminary view. However, not all parties commented on whether these markets would be impacted by declaration and therefore would be relevant to the inquiry, and the ACCC did not form a definitive view on the matter. As such, the ACCC requested additional views from interested parties.

### **Markets for the supply of wholesale services to MVNOs**

Optus submitted that it did not consider there is a separate market for the supply of mobile services to MVNOs as it considers the inquiry relates to the supply of wholesale roaming services to and between MNOs. To this extent, Optus considers MVNOs as part of the downstream retail market for mobile services.<sup>29</sup>

Telstra submitted that MVNOs are a separate input into the retail market and have contributed to the competitiveness of the retail market. Telstra also considers the wholesale market for the supply of mobile services to MVNOs is currently competitive as evidenced by

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<sup>28</sup> Further, as discussed in more detail in Section 5, Telstra also offers services under the brand Boost in these areas which provides a cheaper alternative to Telstra.

<sup>29</sup> Optus, Submission to draft decision, p. 20.

the fact that each MNO provides wholesale mobile services to a number of MVNOs and there is MVNO churn between the MNOs.<sup>30</sup> No MVNOs made a submission to the draft decision.

The ACCC does not consider there is a separate relevant market for the supply of wholesale services to MVNOs for the purposes of this inquiry. We have received no evidence that would support a finding that there is a competition issue in the wholesale supply of mobile services to MVNOs which could potentially be addressed by declaration of a mobile roaming service which is supplied between the MNOs. Further, our key interest is in the downstream retail market for mobile services, and the extent to which declaration would affect, first and foremost, the ability of MNOs to compete with each other. The effect on the MVNOs' ability to compete in the retail market is relatively indirect and minor.

### **Markets for the supply of IoT/M2M services**

Optus submitted that it did not consider there is a separate downstream market for the supply of IoT and M2M services as it considers these services are part of the downstream retail market for mobile services.<sup>31</sup>

Telstra submitted that it considers IoT and M2M services are part of the broader national retail services market as they are downstream applications that are offered in conjunction with other retail mobile services including voice, SMS and broadband services. Telstra also submitted that supply side substitution between all these downstream services suggests it is appropriate to consider them in the same national retail market, and noted that new technological developments such as IoT and M2M may in fact improve or create a business case for investment in mobile infrastructure in regional and rural Australia.<sup>32</sup>

However, both VHA and Pivotal submitted that without declaration competition is limited in the provision of IoT and M2M services and should therefore be considered a separate market relevant for the purposes of assessing competition for the inquiry.<sup>33</sup>

VHA submitted that M2M services are inherently regional and that VHA is unable to provide M2M services to regional areas without declaration of a mobile roaming service. This is because Telstra is refusing to supply international permanent roaming SIMs and VHA cannot negotiate reasonable commercial roaming terms with Telstra.<sup>34</sup>

Pivotal submitted that, absent a domestic roaming declaration, Telstra will be unconstrained in its premium pricing for IoT and M2M services nationally where mobility of the IoT and M2M devices is a determining factor in choice of MNO and that competition and innovation in IoT and M2M markets will be materially reduced without declaration in the Telstra-Optus areas.<sup>35</sup>

The ACCC has considered the submissions received, particularly submissions that support IoT and M2M services being a separate relevant market. The ACCC does not consider that for the purposes of this inquiry, the supply of IoT and M2M services should be considered a separate relevant market for the following reasons.

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<sup>30</sup> Telstra, Submission to draft decision, p. 8.

<sup>31</sup> Optus, Submission to draft decision, p. 20.

<sup>32</sup> Telstra, Submission to draft decision, pp. 8, 29.

<sup>33</sup> VHA, Submission to draft decision, Attachment I, p. 1; Pivotal, *Domestic Roaming Enquiry Response*, 16 June 2017, p. 8 (Pivotal, Submission to draft decision); See also VHA, *Domestic mobile roaming declaration inquiry*, Part A, 13 March 2017, p. 14 (VHA, Supplementary submission to discussion paper).

<sup>34</sup> VHA, Submission to draft decision, Attachment I, p. 5.

<sup>35</sup> Pivotal, Submission to draft decision, p. 5.

First, these services are in an early stage of development and are heterogeneous in nature. The connectivity requirements of these services may also differ, as some IoT applications can be data-intensive while others utilise only small amounts of data. This makes it difficult to identify a clearly defined market for the purposes of assessing competition at this point in time.

Second, there are likely supply-side substitutes for mobile roaming in the provision of IoT and M2M services. Applications can use existing mobile networks, fixed Wi-Fi or Bluetooth connections for short distance communication or use narrowband or other low-powered wireless technologies for wide area communications. The emergence of IoT and M2M services has generated new wireless connectivity providers utilising alternative wireless technologies and standards. For example, the National Narrowband Network Company (NnCo) is proposing to establish a national long range low power wide area network.<sup>36</sup> Another company, Thinxtra, is also establishing a lower power wide area network using SIGFOX technology across Australia with plans for coverage of 95 per cent of the population by 2017.<sup>37</sup> These new entrants are able to deploy geographically extensive networks which support connectivity to large numbers of low cost, low power sensors.

Finally, it is arguable that mobile networks are the preferred means, compared to alternative networks, for providing connectivity to certain IoT applications, such as connected cars. However, as noted above, these services are still in early stages of development. It is difficult to predict the demand for these services, how they may differ across different regions, as well as how demand for these services may affect the MNOs' incentives to increase coverage in the future.

For these reasons, the ACCC considers it would be premature to attempt to assess in any meaningful way how declaration of a mobile roaming service would impact the supply of IoT and M2M services. Therefore, for the purpose of this inquiry, the ACCC does not consider they should be included as a separate relevant market for the purposes of assessing the impact of declaration.

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<sup>36</sup> See the Narrowband Network Company website at: <https://www.nnco.com.au/company/>.

<sup>37</sup> See Thinxtra website at: <https://www.thinxtra.com/iot-overview/>.

## 5. State of competition in relevant markets

### Key points

- The ACCC has assessed the current state of competition in the relevant markets identified in Section 4. That is, it has assessed the state of competition in the wholesale mobile roaming market and the national retail mobile services market.
- The ACCC considers that competition across the wholesale mobile roaming market may not be effective in some parts of the market. However, the ACCC considers that competition in the retail mobile services market is more integral to assessing the impact of declaration.
- The ACCC finds that the MNOs compete over a number of factors and that geographic coverage is only one of them. While the evidence indicates that Telstra sets higher prices and has a larger share of the retail market than its rivals, it is not clear whether this results solely or predominantly from it having greater geographic coverage. For instance, the evidence suggests Telstra's market strength could be significantly driven by its network quality and coverage depth in areas where at least another MNO also has coverage. The ACCC is not convinced that having equal geographic coverage is essential for the MNOs to effectively compete in the market.
- The ACCC also found that consumers who value geographic coverage in the Telstra-only areas have limited choices. However, uniform national pricing means that they also benefit from competition in the national mobile services market. They also have access to Telstra's network through its services under the brand Boost which is a cheaper alternative to Telstra.

The ACCC has considered whether declaration would promote competition in the relevant markets.<sup>38</sup> As part of that consideration, the ACCC assesses the current state of competition in those markets to determine whether declaration would promote the LTIE.

This section sets out the ACCC's assessment of the current state of competition in the relevant markets as defined in Section 4, that is:

- The wholesale market for the supply of mobile roaming services, and
- The retail market for mobile services.

When assessing the state of competition in a market, the ACCC not only considers current conditions and behaviour, but also considers features likely to affect the competitive supply of services in the future. In reaching its preliminary view on this issue, the ACCC had regard to a number of factors including market structure, concentration levels, price and non-price rivalry, and the dynamic characteristics of the market. In this final report, the ACCC focuses on issues raised in the submissions in response to the ACCC's preliminary view and provides reasons for its final views on the state of competition in the relevant markets, which is integral to its analysis of whether declaration would promote the LTIE.

VHA argued in its submission that the ACCC made an error by asking itself antecedent questions before applying the LTIE test. VHA considered that the ACCC predetermined its conclusion by looking at current market conditions and the draft decision was therefore flawed and not forward-looking, that is, the ACCC had found that competition is effective and therefore this determined the conclusion that declaration would not promote the LTIE.<sup>39</sup>

<sup>38</sup> CCA, section 152AB(2)(c).

<sup>39</sup> VHA, Submission to draft decision, Attachment C, pp. 1–2.

The ACCC's assessment of the current market conditions is necessary to examine whether declaration of a mobile roaming service would promote competition in those markets. This is an essential part of its analysis of whether declaration would promote the LTIE. To assist in this regard the ACCC has considered the current state of competition, in particular the competitive dynamics in the market, and then examined the likely future scenarios, with and without declaration. In doing so, the ACCC has then been able to assess, the extent to which, declaration would promote competition in the relevant markets. This approach in applying the promotion of competition limb of the LTIE test is detailed in the ACCC Declaration Guideline and is consistent with how the ACCC has applied the test in past declaration inquiries.<sup>40</sup>

## 5.1. State of competition in the wholesale market for mobile roaming services

The ACCC expressed the preliminary view that the state of competition in the market for wholesale mobile roaming services appears to depend on the area of Australia in which those services are being offered. That is:

- In areas currently covered by two or more MNOs, the ACCC considered competition is generally effective. VHA has a current commercial roaming agreement with Optus which allows its customers to roam onto a significant part of Optus' network.
- In the current Telstra-only areas, the ACCC considered competition is not effective. This is because Telstra has not negotiated and appears to be unwilling to negotiate commercial roaming agreements to provide roaming services in these areas.
- The ACCC considered that a new MNO entrant commencing a network build-out should be able to negotiate a roaming agreement with an existing MNO depending on the competitive conditions in the retail market.
- The ACCC also considered that the market which is most relevant for assessing whether declaration would promote the LTIE will usually be the downstream or retail market and not the upstream or wholesale market in which the service is supplied.<sup>41</sup>

Optus agreed with the ACCC's preliminary view that competition in the provision of mobile roaming services in areas covered by two or more MNOs is generally effective. Optus also agreed that while competition in areas where Telstra is the only MNO may not be effective, competition in the retail market is more integral to assessing the effect of declaration.<sup>42</sup>

On the other hand, VHA disagreed with the ACCC's preliminary view that the retail market is more important in considering the extent to which declaration would promote competition in the relevant market, and whether declaration would promote the LTIE. VHA argued that the ability of VHA to supply retail services is partly determined by the availability of wholesale services, and declaration would enable it to supply services in areas that it could not currently, or ensure it can continue to supply services in areas in which it currently acquires commercial roaming.<sup>43</sup>

VHA's description of the impact declaration would have on its business also inevitably focuses on the retail market, in that declaration would allow VHA to supply retail services in areas where it does not have coverage. The ACCC acknowledges that declaration would also have competitive consequences in the wholesale market. However, where the

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<sup>40</sup> See ACCC Declaration Guideline, pp. 32–39.

<sup>41</sup> ACCC, Draft decision, p. 22.

<sup>42</sup> Optus, Submission to draft decision, p. 20.

<sup>43</sup> VHA, Submission to draft decision, Attachment C, pp. 4–5.

wholesale market is the market for the supply of the service which is the subject of the declaration inquiry, declaration would simply *require* an access provider to provide that service to an access seeker in the wholesale market. The more important effect of declaration will usually be in the downstream retail market.

VHA also disputed the view that competition for wholesale mobile roaming services in areas with more than one MNO is competitive. VHA submitted that **[c-i-c]**.<sup>44</sup>

The ACCC considers that in areas where there are more than one MNO, there should continue to be commercial incentives to provide mobile roaming services. Whether a commercial roaming agreement is actually reached between two parties, however, would naturally depend on the terms and conditions that each party is willing to accept and other commercial considerations. The ACCC acknowledges **[c-i-c]**. As noted above, the ACCC considers that the key impact this would have on competitive processes would be in the downstream retail market. The ACCC has taken this into account in assessing the extent to which declaration would promote competition in the retail mobile services market, and therefore whether declaration would promote the LTIE.

For reasons discussed above, the ACCC maintains the view that competition for wholesale mobile roaming services in the Telstra-only areas may not be effective. In the Telstra-Optus areas, it is unclear whether the market will continue to be competitive **[c-i-c]**. In the three-MNO areas, the ACCC considers that the market for wholesale mobile roaming services is likely to be competitive and a new MNO entrant should be able to acquire a roaming service from one of the MNOs.

## 5.2. State of competition in the national retail mobile services market

### 5.2.1. ACCC's preliminary view and issues in submissions

In reaching its preliminary view, the ACCC examined a number of competitive factors, both price and non-price, on which service providers currently compete in the retail mobile services market. The ACCC also examined dynamic characteristics of the market, including previous and current levels of market concentration, consumer switching behaviour and barriers to entry. The ACCC expressed the view that, given the factors outlined below, the market for retail mobile services is generally showing signs of being reasonably competitive:

- The MNOs hold similar shares of consumers living in metropolitan areas. However, in regional areas, Telstra has a much greater market share of consumers residing in these areas than its competitors.
- Consumers are readily able to switch from one mobile service provider to another as mobile number portability facilitates switching behaviour by allowing consumers to keep their mobile number when switching to a different provider. However, switching may be less likely to occur in regional areas where consumers have less choice of providers.
- One of the primary factors over which mobile service providers compete for customers is price, including data quotas as an indication of value. While average retail price reductions for mobile services have slowed in recent years, data inclusion has increased significantly in the same period. These factors suggest that price competition in the mobile market is reasonably dynamic. Australia's retail prices for mobile services are also low compared to those offered in comparable OECD countries.<sup>45</sup>

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<sup>44</sup> **[c-i-c]**

<sup>45</sup> OECD, *Economic Surveys: Australia 2017*, February 2017.

- Service quality is another factor over which service providers compete for customers. Consumer demand for data and high quality services have driven competition between the MNOs to make significant investments to upgrade their mobile networks. There is evidence that competition over network quality and the importance of network reliability, depth of coverage, and service quality to consumers are elements that have contributed to Telstra's position in the national mobile market.
- Service providers also seek to attract customers by offering a range of features with their mobile plans, such as exclusive content, free and/or unmetered access to streaming services, inclusions for international calls, flat rates for international roaming, free access to Wi-Fi hotspots, and access to exclusive content.
- Geographic coverage remains a differentiator between the three MNOs. Telstra is better able to compete for consumers who require or value wide geographic coverage due to the size of its network. Telstra is also likely to retain its advantage in geographic coverage, as it appears unlikely that another MNO will fully match the size of Telstra's network. However, there is insufficient evidence to support a finding that extensive geographic coverage is essential for a service provider to compete in the mobile services market. It is only one factor that consumers consider.
- In areas where Telstra is the only MNO with coverage, consumers have limited choice (only Telstra and Boost). As Telstra's prices are generally more expensive, these consumers do generally face higher prices. However, they also benefit to some extent from price competition in the wider national retail market due to uniform national pricing and the existence of Boost as a cheaper alternative.
- Competition for consumers in regional areas appears to be less effective than in the national retail market, but there is no evidence of significant consumer detriment resulting from this.<sup>46</sup>

Submissions on the ACCC's preliminary findings on the state of competition in the retail mobile services market are mixed.

Telstra and Optus generally agreed with the ACCC's preliminary findings and provided additional information to support those findings.

On the other hand, VHA disputed the ACCC's preliminary view in relation to the state of competition in the retail mobile services market. VHA raised a range of issues including:

- The ACCC failed to undertake structural analysis of the impact of natural monopoly on competitive dynamics in regional Australia.
- The ACCC has apparently determined there is no market failure, but this is not a relevant conclusion for Part XIC analysis and infects the ACCC's reasoning.
- The ACCC underestimated the number of people affected by coverage differences in regional areas and erred in concluding that Telstra's dominance in regional areas is caused by factors other than Telstra's superior coverage.
- Competition in metropolitan areas and national uniform pricing do not constrain Telstra. Telstra's prices disguise excessive profits and do not reflect the underlying costs of providing the wider coverage.
- The ACCC overestimated the competitive relevance of Boost as Boost is beholden to Telstra and exercises no competitive constraint on Telstra in regional Australia.<sup>47</sup>

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<sup>46</sup> ACCC, Draft decision, pp. 23–48.

<sup>47</sup> VHA, Submission to draft decision, Attachment C, pp. 3–10.

In Richard Feasey's report prepared for VHA, he noted that the ACCC was careful in the draft decision not to present a clear conclusion, and offered a rather bleak outlook for consumers. He also suggested that the ACCC appeared to be 'declaring victory' on a market that was judged to be only "generally reasonably effectively competitive".<sup>48</sup>

The Victorian Farmers Federation (VFF) expressed the view that the ACCC's finding that the retail mobile services market is reasonably effective denotes that it is "good enough" but considered that Australia deserved better. The VFF also considered that the ACCC failed to examine international benchmarks or relevant comparators to assess the optimally competitive national market for mobile and the existing state of competition has influenced the objectivity of the findings.<sup>49</sup>

Other submissions that commented on the issue broadly noted that the retail mobile services market is already competitive and uniform national pricing protects the interests of consumers.<sup>50</sup>

### **Key issues raised in submissions**

The ACCC considers that the key issues raised by VHA relate to divergent views on how the MNOs compete in the mobile services market and the reasons for Telstra's market leading position, which directly impact views on market outcomes. This section focuses on addressing these issues and incorporates additional analysis the ACCC has conducted.

The ACCC notes comments by Richard Feasey and the VFF on the ACCC's characterisation of the state of competition as 'reasonably effective'. In characterising competition as such, the ACCC is not suggesting that the state of competition is "good enough" or that it is satisfied with the level of competition in the market. The key issues that the ACCC examines in assessing the state of competition are the competitive dynamics in the market. The relevant question in assessing the LTIE is not whether competition in the relevant markets could be improved, but whether declaration would promote competition compared to the situation without declaration. The overall description of the state of competition is therefore not determinative of the relevant question.

The ACCC has undertaken a full examination of whether declaration of a mobile roaming service would promote competition in the relevant markets in Section 6.

#### **5.2.2. Telstra is the clear market leader, especially in regional areas**

The retail mobile services market in Australia is relatively concentrated with the three MNOs accounting for an overwhelming majority of the market share. As shown in Figure 1 below, while the MVNOs' collective market share has continued to grow, it still accounted for only around 10 per cent of the market share in terms of services in operation (SIOs) as at June 2016, meaning the three MNOs held around 90 per cent of the overall market.

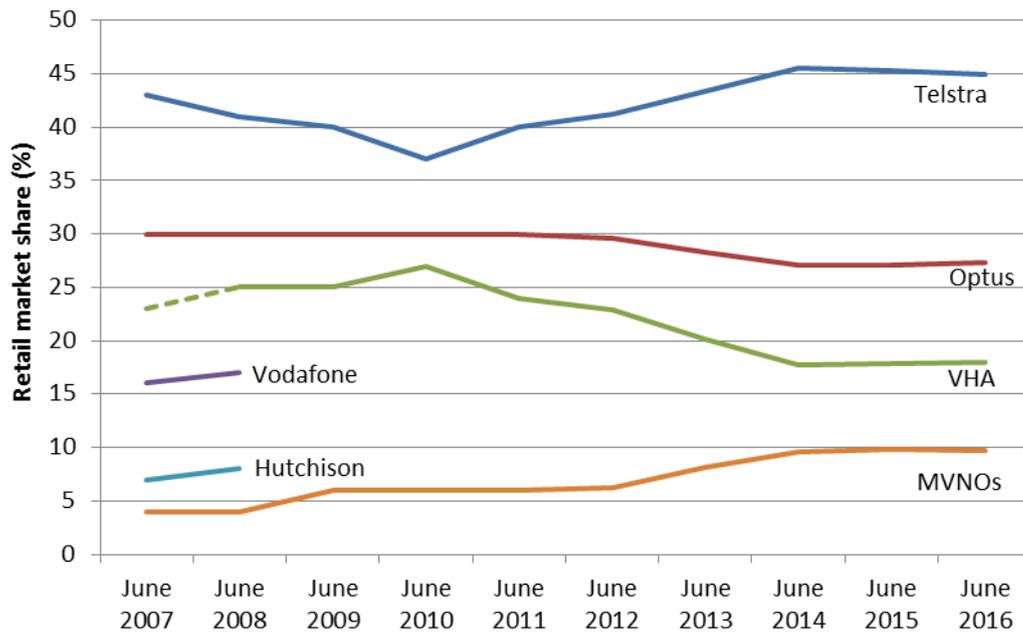
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<sup>48</sup> VHA, Submission to draft decision, Attachment F, *Richard Feasey's comments on aspects of the ACCC's Domestic Roaming Declaration Enquiry Draft Decision*, p. 3.

<sup>49</sup> VFF, *Domestic mobile roaming declaration inquiry: Response to draft declaration*, 22 May 2017, p. 3.

<sup>50</sup> See for example, Gippsland Regional Executive Forum, Submission to the draft decision, 16 June 2017; Indigenous Remote Communications Association, *IRCA Response to the ACCC mobile roaming declaration inquiry draft decision*, 9 May 2017; Barcoo Shire Council, Submission to draft decision, 15 June 2017.

**Figure 1 – Telstra is the clear leader but market shares have fluctuated over time (%)<sup>51</sup>**



As noted in the ACCC’s preliminary view, it is clear that Telstra has always been the market leader in the mobile services market. However, its market share has fluctuated over the years. Prior to June 2010, Telstra experienced continued decline in its market share. Since then, Telstra’s market share has consistently increased until 2014 after which it stabilised to around 45 per cent. Telstra’s increase in market share after 2010 is mirrored by VHA’s sharp decline in market share around the same time. In contrast to Telstra and VHA, Optus’ market share has been relatively stable over the years, with a slight dip from 2012 to 2014. On the other hand, the MVNOs’ collective market share has steadily increased over the years and has stabilised to around 10 per cent since 2014.

The ACCC indicated its preliminary view that VHA’s market share decline after 2010 is likely to be due, in large part, to network reliability issues in late 2010 that resulted in a massive number of customers churning away from VHA. On the other hand, the rise in Telstra’s market share around the same period is likely to be due to the fact that it adopted a more aggressive pricing strategy, improved its customer service focus and continued to invest in its network when VHA experienced its network problems.<sup>52</sup>

VHA submitted that the ACCC’s view on the reasons for VHA’s market share decline did not recognise that VHA was also in the process of merging the networks of Hutchison and Vodafone which resulted in customer migration and churns as call plans expired. VHA also submitted that the ACCC failed to explain why Optus also appeared to be losing market share to Telstra after 2012, and that Telstra was able to retain its market share despite suffering network outages in recent years.<sup>53</sup>

The ACCC acknowledges that there are various reasons why consumers switch providers at any given point in time and that it is possible not all of VHA’s market share loss after 2010 was due to the network issues suffered by VHA in 2010. However, VHA lost almost 10 per

<sup>51</sup> ACCC Telecommunications reports 2006–07 to 2015–16. The ACCC notes that the market share of Optus used in these reports include the market share of Virgin Mobile which is a wholly owned subsidiary of Optus.

<sup>52</sup> ACCC, Draft decision, p. 25.

<sup>53</sup> VHA, Submission to draft decision, Attachment D, pp. 42–43.

cent of market share from 2010 to 2014 before stabilising. The scale and persistence of the market share loss indicates that this is unlikely to be due to the merger of Vodafone and Hutchison alone. The network problems experienced by VHA and the subsequent customer churn from its network were well publicised.<sup>54</sup> VHA issued a public apology for the network issues and a group of VHA customers were contemplating class action against VHA at the time.<sup>55</sup>

The ACCC also notes that since its network issues in 2010, VHA has invested significantly to upgrade its network.<sup>56</sup> Therefore, the ACCC considers that it is likely that a significant portion of VHA's market share loss after 2010 was primarily due to the network problems that VHA experienced in late 2010. The ACCC does not consider that Optus' market share loss after 2012 and Telstra's recent network outages detract from this finding as they are clearly not on the same scale as the market share loss and network problems experienced by VHA.

Since the draft decision, the ACCC has obtained estimates of market shares in the mobile services market from Roy Morgan single source data across different regions of Australia.<sup>57</sup>

Table 1 below shows average market shares by SIOs for the MNOs and MVNOs in the major capital cities and the ACT from July to December 2016.<sup>58</sup>

**Table 1 – Telstra has the highest market share in all cities except for Sydney (%)**

City	Telstra	Optus	VHA	Others
Sydney	27.5	25.7	29.6	17.2
Melbourne	36	26.7	20	17.2
Brisbane	37.8	27.3	15.5	19.3
Adelaide	30.8	24.1	22.8	21.8
Perth	35.8	20	24.8	19.4
ACT	35.3	23.8	16.4	24.5

Source: Roy Morgan Single Source (Australia), July 2016 – December 2016, n=24226, Australians 14+. Totals may not add up to 100 per cent due to rounding.

While there are some differences, the market share data above show largely consistent patterns observed from market share data provided by the MNOs. Telstra has the highest market share in all major capital cities and the Australian Capital Territory (ACT) apart from

<sup>54</sup> See for example, Sydney Morning Herald, *Vodafone customers seething over dropped calls, slow data*, 10 December 2010, accessed on 15 September 2017 at <http://www.smh.com.au/technology/technology-news/vodafone-customers-seething-over-dropped-calls-slow-data-20101210-18sev.html?comments=210#comments>; Channel News, *VodaFlee: Telco lose 178,000 users, -\$131m loss*, 23 July 2012, accessed on 15 September 2017 at <https://www.channelnews.com.au/r9l7n5s3-vodaflee-telco-lose-178000-users-131m-loss/>.

<sup>55</sup> See Sydney Morning Herald, *We are truly sorry: Vodafone*, 22 February 2017, accessed on 15 September 2017 at <http://www.smh.com.au/technology/technology-news/we-are-truly-sorry-vodafone-20110221-1b334.html>; Sydney Morning Herald, *Vodafone customers to sue in class action*, 27 December 2010, accessed on 15 September 2017 at <http://www.smh.com.au/technology/technology-news/vodafone-customers-to-sue-in-class-action-20101226-1982f.html>.

<sup>56</sup> See Hutchison Australia, *Preliminary Final 2010 Annual Results*, 24 February 2017, p. 7, available at: <http://clients3.weblink.com.au/pdf/HTA/01154881.pdf>; Hutchison Australia, *Preliminary Final 2011 Annual Results*, 24 February 2012, pp. 4–5, available at: <http://clients3.weblink.com.au/pdf/HTA/01272209.pdf>.

<sup>57</sup> Roy Morgan interviews 50,000 people in Australia each year and asks questions relating to consumer profiles, including the use of telecommunications services. See Roy Morgan website at <http://www.roymorgan.com/products/single-source>.

<sup>58</sup> Note that in analysing data sourced from Roy Morgan single source data, the SIOs for Virgin Mobile are included in the SIOs of the MVNOs rather than those of Optus. The ACCC considers that treating Virgin Mobile market shares in this way better illustrates the competitive dynamics across various regions.

Sydney, where VHA has the highest market share. However, Telstra's share of customers in these areas is generally lower than its overall national market share and the differences between Telstra's and others' market shares are smaller in these areas than they are nationally. Further, while the MVNOs' collective share of customers in Sydney and Melbourne appear to be below those of the MNOs, their collective share of customers in other capital cities and the ACT is relatively comparable to the MNOs.

Table 2 below shows average market shares by SIOs for the MNOs and the MVNOs outside the major capital cities and the ACT from July to December 2016.

**Table 2 – Telstra has a very high market share in all regional areas (%)<sup>59</sup>**

Region	Telstra	Optus	VHA	Others
<b>NSW excl. city and ACT</b>	56.6	25	5	13.5
<b>Vic excl. city</b>	64.7	16.8	5	13.5
<b>Qld excl. city</b>	59.5	19.8	8.8	11.9
<b>SA excl. city</b>	68.3	13.6	5.1	12.9
<b>WA excl. city</b>	74.9	7.7	5.4	11.9
<b>Hobart</b>	67.1	12.2	10.4	10.3
<b>Tas excl. city</b>	83.7	6.8	1.3	8.3
<b>Darwin – Alice Springs</b>	62.6	17.6	9.8	10

Source: Roy Morgan Single Source (Australia), July 2016 – December 2016, n=24226, Australians 14+. Totals may not add up to 100 per cent due to rounding.

Consistent with the ACCC's preliminary observations, Table 2 supports a finding that Telstra has a much larger share of customers located outside the major capital cities and the ACT. Telstra appears to be particularly strong in WA and Tasmania. VHA has the lowest market share – even compared to the collective market share of the MVNOs – in all of these areas except Hobart.

Overall, while Telstra still leads in market shares in most capital cities and the ACT, the MNOs' market positions in these areas are relatively comparable. By contrast, Telstra is in a much stronger market position compared to the other MNOs for consumers residing outside the major capital cities and the ACT. This shows that in these areas outside major capital cities and the ACT, there is a stronger preference from consumers for Telstra's services.

The ACCC considers that the data support the view that there is significant regional variation in demand for or availability of service from various MNOs and this may mean that MNOs have varying degree of market power in different regions. The reasons for these market share variations are important to the assessment of whether declaration of a roaming service will likely promote the LTIE and the extent to which declaration would promote competition in the retail mobile services market.

<sup>59</sup> ibid.

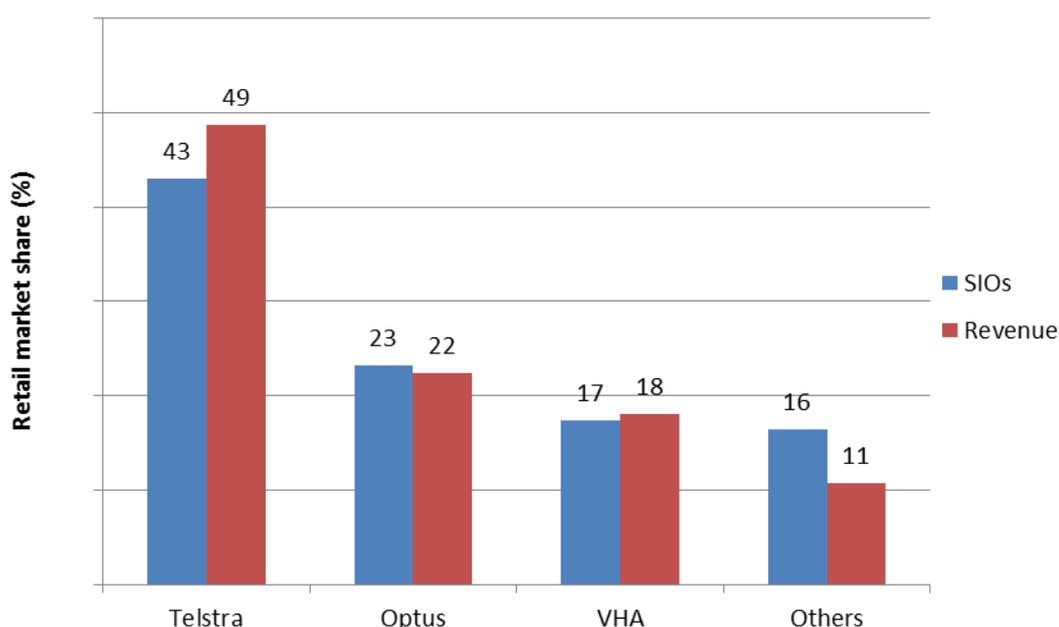
### 5.2.3. Telstra generally charges higher prices for its services

#### Telstra extracts more revenue from its customers on average than its competitors

The ACCC finds that Telstra appears to be extracting more revenue from its customers on average than its competitors. Figure 2 below shows estimated average market shares from July to December 2016 for the MNOs and MVNOs both in terms of SIOs and revenue. Figure 2 shows that Telstra's revenue market share of 49 per cent is markedly higher than its SIO market share of 43 per cent, while MVNOs' revenue share of 10 per cent is significantly lower than their SIO market share of 16 per cent. This reflects the fact that on average, Telstra is likely to extract more revenue from its customers compared to others. In contrast, the MVNOs on average are less likely to extract more revenue from their customers than the others. Optus' and VHA's revenue market shares and SIO market shares are relatively comparable.

Information relating to the MNOs' average revenue per user (ARPU) confirms the views that Telstra extracts more revenue per user than its competitors. For instance, for the 2016–17 financial year, Telstra's ARPU per month for mobile services is around \$44.80, compared to \$37.50 for Optus and \$41.60 for VHA.<sup>60</sup> Interestingly, VHA has a higher ARPU than Optus, despite having a smaller network.

**Figure 2 – Telstra is able to extract more revenue from its users (%)<sup>61</sup>**



#### Telstra charges a premium for its services

The ACCC's preliminary view was that the average cost of data in Telstra's low category pre-paid and post-paid plans is substantially higher than its rivals, and that voice call inclusions are much lower than in other MNOs' plans. In that sense, Telstra does charge a price premium for its services. The ACCC also found that Telstra's price of data for medium

<sup>60</sup> ACCC analysis based on the MNOs' information provided under the Division 12 Record Keeping Rules for 2016–17.

<sup>61</sup> Roy Morgan Single Source (Australia), July 2016 – December 2016, n=24226, Australians 14+.

and high category post-paid plans declined between 2013 and 2016 to reach levels similar to the other MNOs'.<sup>62</sup>

VHA questioned these findings in its submission to the draft decision. Specifically, VHA submitted that the ACCC had only taken into account price differences for a limited number of products, which VHA considered are not representative of the services purchased by the majority of mobile users.<sup>63</sup>

To address this concern the ACCC broadened the comparison of prices and inclusions considered in the draft decision to encompass all of the MNOs' post-paid and pre-paid plans on the market as at June 2017. This comparison continues to focus primarily on data inclusions in MNOs' plans, as data has become the main feature in mobile plans and the vast majority of the options in the market include unlimited voice and SMS.<sup>64</sup> Consistent with the approach used in the draft decision, the ACCC has grouped the MNOs' retail plans according to their customers' monthly expenditure into low (up to \$40), medium (\$41 to \$59), high (\$60 to \$79) and very high (\$80 and above).

Consistent with our preliminary findings, we find that voice inclusions in Telstra's plans are generally smaller in comparison to those included in other MNOs' plans. For example, there is a considerable difference in the case of SIM-only post-paid plans, as the majority of Telstra's options still include a limited monthly allowance for voice calls while all of Optus' and VHA's plans allow unlimited calls.

As with voice inclusions, Telstra's data allowances for its post-paid and pre-paid plans have been historically smaller than allowances in other MNOs' plans of similar price, making the cost of data in Telstra's plans more expensive.

Figure 3 below shows the cost of data in the MNOs' pre-paid plans. While Telstra has matched other MNOs' unlimited voice inclusions over time (with the exception of its least expensive plan), all its pre-paid options still include a much smaller amount of data than other MNOs' options. For example, Optus' data inclusions are twice as much as Telstra's across the full range of pre-paid plans and data inclusions in VHA's plans are up to three times more. Consequently, the price per gigabyte of data in Telstra's pre-paid plans is still more than double the price in Optus' plans, and up to almost three times the price paid by VHA's customers. Figure 3 below shows the cost per gigabyte of data in each of MNOs' pre-paid plans.

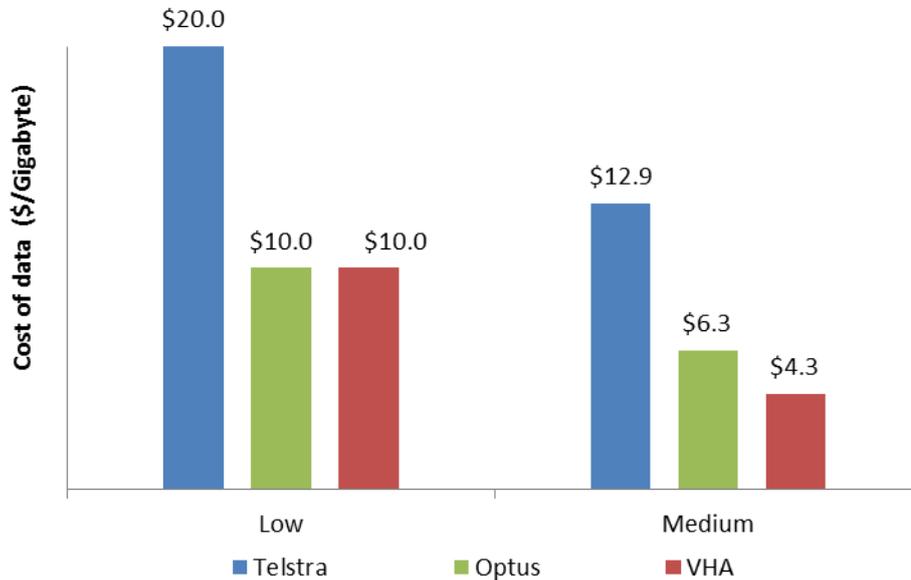
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<sup>62</sup> ACCC, Draft decision, pp. 39–42.

<sup>63</sup> VHA, Submission to the draft decision, Attachment H, p. 15.

<sup>64</sup> To allow for a comparison of equivalent products the study focuses on mobile services that are provided by the three MNOs, which we believe represent what majority of mobile users acquire. For example, we have excluded 24-month SIM-only plans, as VHA is the only MNO providing this product.

**Figure 3 – For pre-paid plans, Telstra’s cost of data is double that of its closest competitors’ (\$/Gigabyte)**



Figures 4 and 5 below show the cost of data in MNOs’ post-paid SIM-only month-to-month plans and 12-month plans respectively. Figure 4 shows that, for SIM-only month-to-month plans, each gigabyte of data costs Telstra’s customers in the low category more than three times more than users on other networks. The price difference disappears for medium and high categories, where Telstra is one of the least expensive options.

**Figure 4 – For SIM-only month-to-month plans, Telstra offers comparable value in medium and high categories but is significantly more expensive in low categories (\$/Gigabyte)**

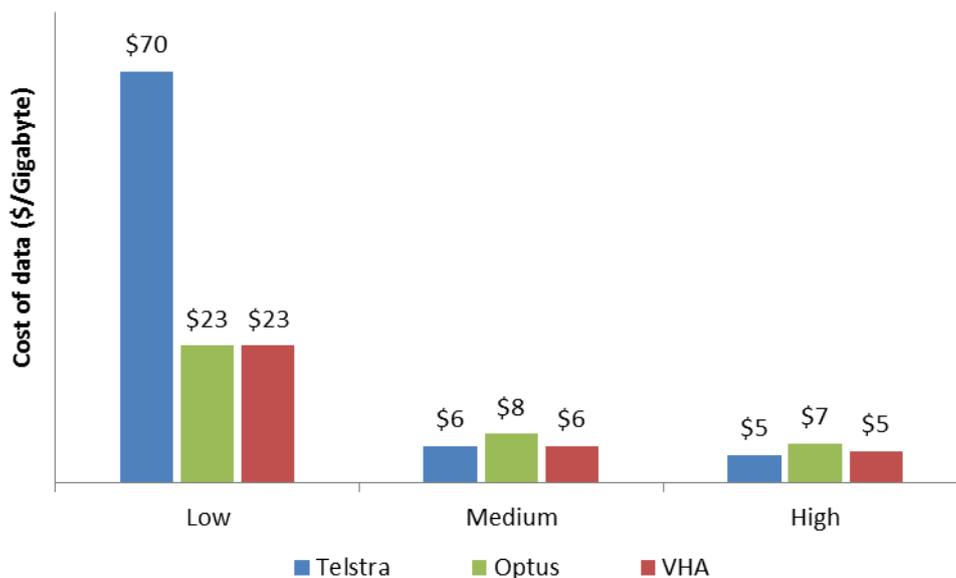
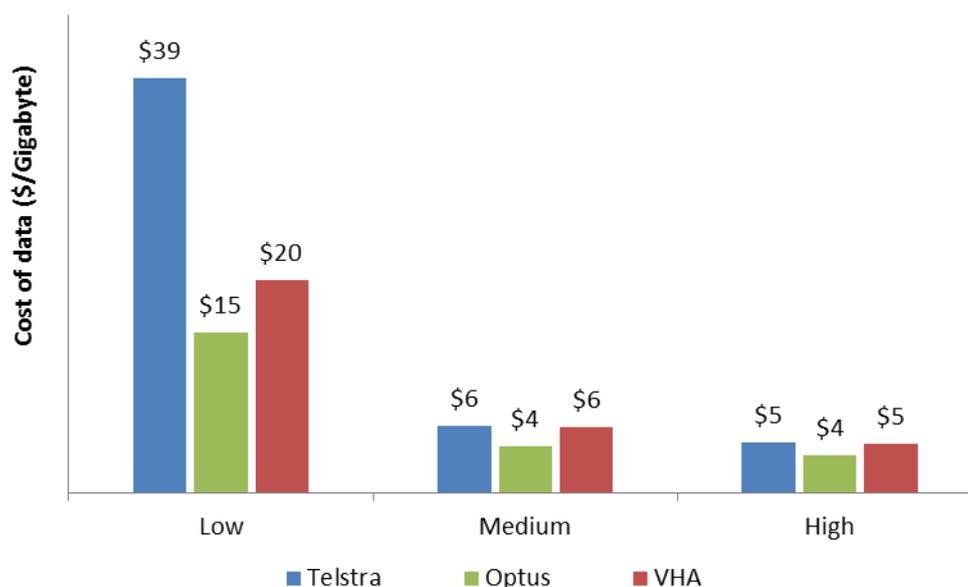


Figure 5 below shows that for SIM-only 12-month plans, the premium that Telstra charges for low-category plans is significantly less than that observed for month-to-month plans. Similarly, for medium to high categories, Telstra offers comparable value to other MNOs.

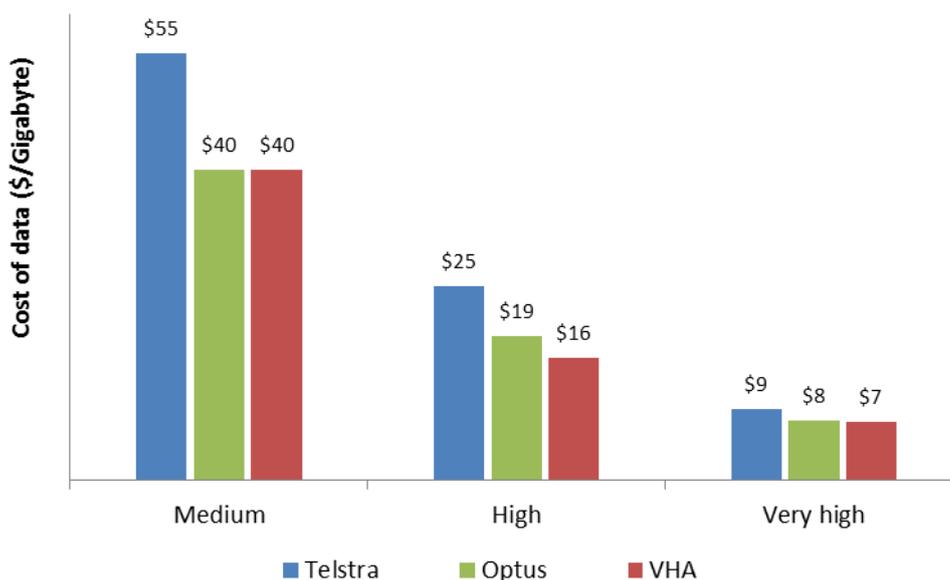
**Figure 5 – For SIM-only 12-month plans, Telstra also charges more in low categories, but offers comparable value in medium and high categories (\$/Gigabyte)**



For handset-included plans, users on the medium and high categories of Telstra's plans pay materially more per gigabyte of data than their counterparts on other networks. On the other hand, Telstra's cost of data is only marginally higher than the others' in the very high category. While the difference in these plans is smaller than in the low categories of SIM-only options, Telstra still charges between 13 per cent and 38 per cent more for data inclusions in all handset-included plans. Figure 6 below shows the cost per gigabyte for the full range of MNOs' handset-included plans in the market, where a basic handset is included when a customer signs up for a plan.<sup>65</sup>

<sup>65</sup> This is in contrast to plans with a premium handset (i.e. the more popular high-end mobile phones), where consumers will be required to pay an amount on top of the monthly charge.

**Figure 6 – For handset-included plans, Telstra also charges more for medium and high categories (\$/Gigabyte)**



The ACCC considers that the analysis of Telstra’s price premium across various post-paid and pre-paid plans shows that while Telstra generally charges higher prices for its services, its price premium is lower for some plans, specifically the medium, high and very high categories of post-paid plans. This may indicate that Telstra targets these segments of the market, consistent with its reputation as a premium brand that targets high-spend consumers.<sup>66</sup>

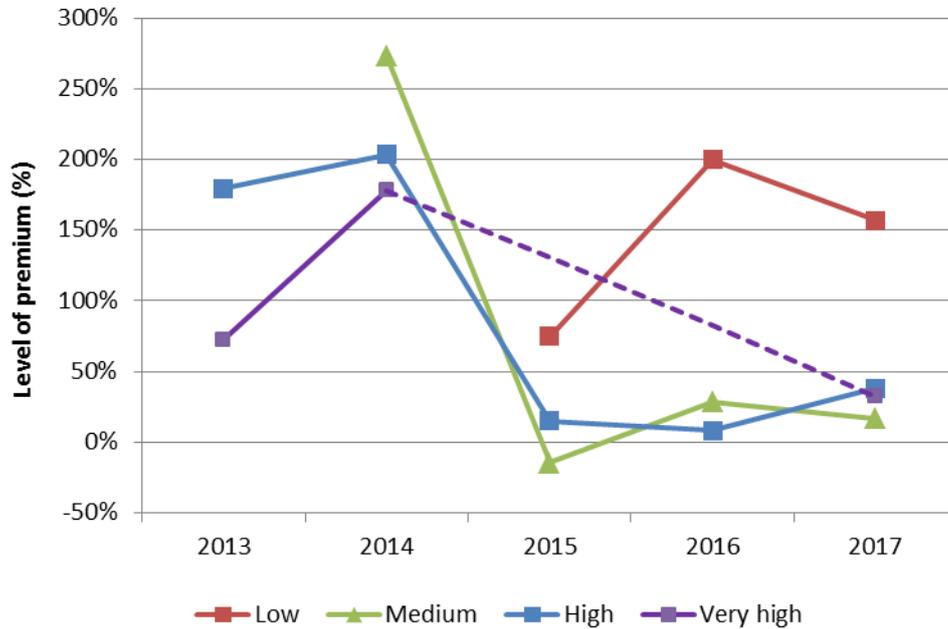
### **Differences in prices have generally reduced over the last five years**

The ACCC expressed the preliminary view that differences in the cost of data in some of the MNOs’ post-paid plans have reduced over time. To confirm this trend, the ACCC conducted further analysis on the cost of data in MNOs’ plans over a period of five years, based on MNOs’ advertised plans. The ACCC notes that the lack of comparable offers at each price category over time constrained to some extent the granularity of the results. This mainly results from the fact that Telstra did not offer plans at as many price points as it does now.

However, on average we observed that the effective price of data in Telstra’s post-paid plans has progressively decreased over time to approach other MNOs’ offers with the exception of low category plans. For example, the cost of data in Telstra’s medium post-paid plans in the second quarter of 2014 was more than 270 per cent higher than in Optus’ or VHA’s plans. This price difference has reduced to 17 per cent in 2017. In the high category, the premium paid by Telstra’s customers fell from 203 per cent in 2014 to 38 per cent in June 2017. Figure 7 below shows the change in Telstra’s price premium in the five years to June 2017.

<sup>66</sup> The ACCC notes that Telstra also provide mobile services under brands Boost and more recently Belong, which target the low-spend segment of the market.

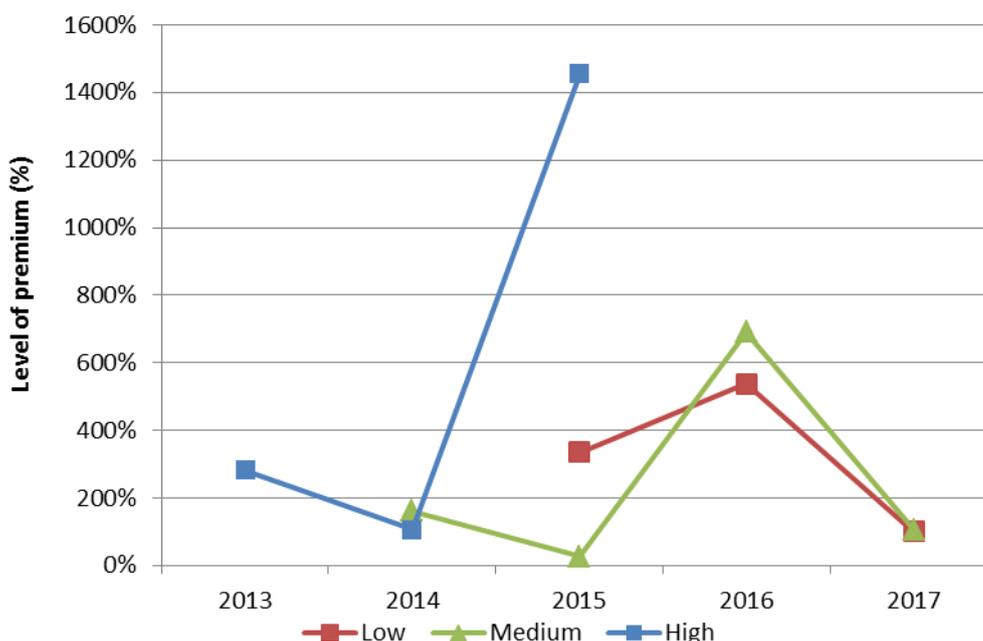
**Figure 7 – For post-paid plans, Telstra’s premium in the medium, high and very high categories has declined over time but its premium for low categories remains high (%)<sup>67</sup>**



Data inclusions in Telstra’s pre-paid plans have varied significantly over time in response to changes in data inclusions in other MNOs’ pre-paid plans. While the cost of data included in Telstra’s pre-paid plans has recently approached the price charged by other MNOs, the difference is still significant. Figure 8 below shows the change in Telstra’s price premium in the five years to June 2017.

<sup>67</sup> The dotted lines show projected movements in the cost of data due to incomplete data points in between the different years. The figure shows negative premium for Telstra’s service in 2015 for medium plans, which indicates that Telstra’s cost of data is lower than its closest competitors at that point in time.

**Figure 8 – For pre-paid plans, Telstra’s premium has been volatile (%)**



There is no distinct trend in the level of price premium and it appears to fluctuate over the time period examined. Telstra also appears to change its range of pre-paid services regularly. For instance, Telstra had a high category pre-paid plan from 2013 to 2015 but no longer does. On the other hand, it appears that the levels of price premium in low and medium price categories have converged over time to a similar level in 2017.

The data show that while the effective price of data is generally higher in Telstra’s plans compared to other MNOs’, the magnitude of the price premium has generally declined over the past five years. The decline has been most significant for post-paid services which account for around 73 per cent of all Telstra’s SIOs in 2016.<sup>68</sup> This again reflects the fact that Telstra targets the post-paid segment of the market more than the pre-paid segment. In addition, it is clear that Telstra has sought to expand the range of its plans over time to encompass different price points. The ACCC considers that all of these trends show that Telstra has over the past five years become more responsive to competition from the other MNOs.

### **The majority of Telstra’s customers are on plans with the lowest price premium**

As discussed in the previous section, price differences vary across types of plans. We noted that the highest price differences affect Telstra’s customers on low category plans. To ascertain the impact of price differences in different groups of consumers, the ACCC utilised survey-based data on consumer expenditure for 60 Roy Morgan research zones across Australia.<sup>69</sup>

Figure 9 below shows the proportion of Telstra’s customers across the various categories of plans for post-paid services which account for around 73 per cent of Telstra’s overall SIOs in

<sup>68</sup> Roy Morgan Single Source (Australia), January 2016 - December 2016, n=157255, Australian 14+.

<sup>69</sup> *ibid.*

2016.<sup>70</sup> The figure shows the estimated number of Telstra SIOs in each of the categories, the level of price premium that Telstra charges for each category and an overall weighted average premium for Telstra’s post-paid service.<sup>71</sup>

The figure shows that while Telstra charges the highest price premium for its low category post-paid plans, only around 740,000, or 10 per cent, of its post-paid customers are on the low category plans. The overwhelming majority of Telstra’s post-paid customers are on medium, high and very high plans, where Telstra’s price premium ranges from 22.8 per cent to 52.5 per cent.

**Figure 9 – The majority of Telstra’s post-paid customers are on plans with a lower price premium (%)<sup>72</sup>**

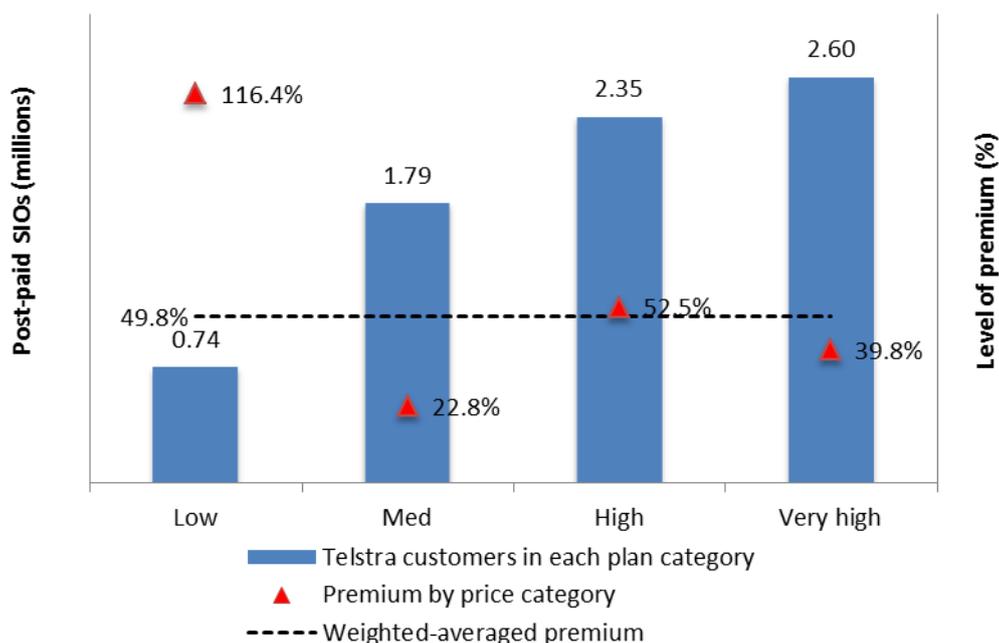


Figure 10 below shows the proportion of Telstra’s customers across the various categories of pre-paid services, which account for 27 per cent of Telstra’s overall SIOs in 2016.<sup>73</sup> The figures shows that more than 50 per cent of Telstra’s pre-paid customers are in the low categories, while the rest are evenly split between medium and high categories.<sup>74</sup>

The ACCC notes that as Telstra does not offer pre-paid plans in the high category, this figure is likely to include some customers who re-charge their pre-paid service more than once a month or purchase additional data such that their monthly expenditure is higher than the price of the pre-paid plan. However, the ACCC does not consider that this caveat affects

<sup>70</sup> *ibid.*

<sup>71</sup> The estimated Telstra SIOs in each of the categories have been calculated using Roy Morgan single source data on the proportions of Telstra customers across various monthly expenditures and Telstra’s overall post-paid SIOs. The ACCC has taken the Roy Morgan data on customer monthly expenditure as a proxy for the price of post-paid plans that the customers are on. This is because the monthly expenditure of a post-paid customer is likely to reflect the monthly charge of the post-paid plan most of the time. The price premium for each category is a weighted average price premium taking into account the proportion of customers across different price points in each category. The overall weighted average premium is calculated using the individual price premium in each category and the proportion of SIOs in each category.

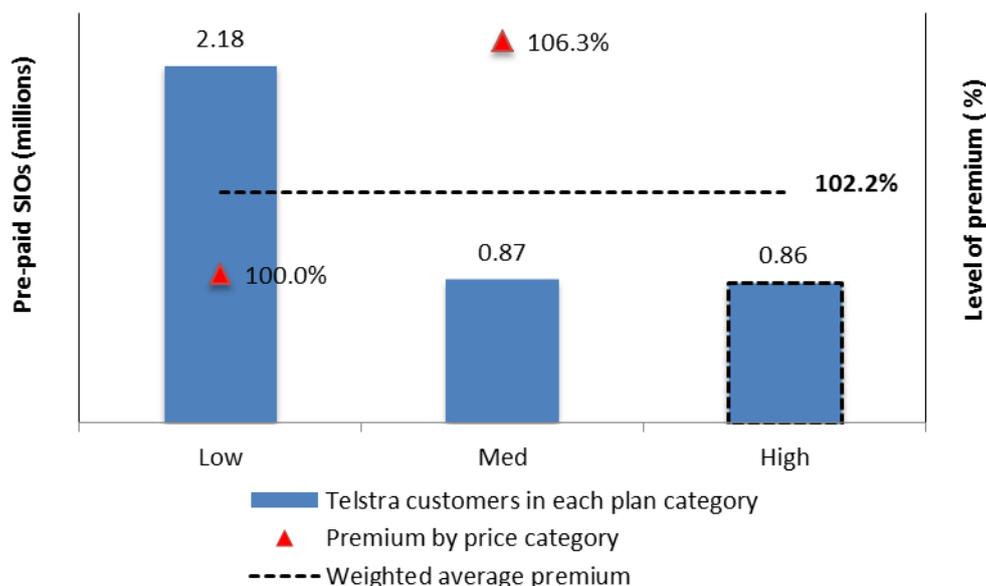
<sup>72</sup> Roy Morgan single source (Australia), January 2016 – December 2016, n = 50144, Australians 14+; Data from Division 12 Record Keeping Rules return June 2016; ACCC analysis on retail prices.

<sup>73</sup> Roy Morgan Single Source (Australia), January 2016 - December 2016, n=157255, Australian 14+.

<sup>74</sup> The estimated number of Telstra SIOs across the categories and the price premium is calculated in the same way as for post-paid services discussed earlier.

the finding in this case, which is that Telstra charges a significant premium for all pre-paid services and the premium is similar for all of its plans. As such, the impact on its customers across the categories, is likely to be similar.

**Figure 10 – Telstra’s pre-paid customers are evenly distributed across low and medium categories and both pay a significant premium (%)<sup>75</sup>**



In summary, the ACCC considers that the data show that Telstra’s price premium is most significant for pre-paid plans and low category post-paid plans. Around 34 per cent of Telstra’s customers are on these plans. In comparison, the majority of Telstra’s customers (around 66 per cent) are on medium, high and very high categories of post-paid plans where Telstra charges a significantly lower price premium. This could indicate, again, that Telstra specifically targets higher-spend post-paid consumers. It could also reflect that many consumers actively compare the various plans offered by Telstra and its competitors and respond by selecting the plans with the most relative values.

### Differences in prices do not impact metropolitan and regional consumers differently

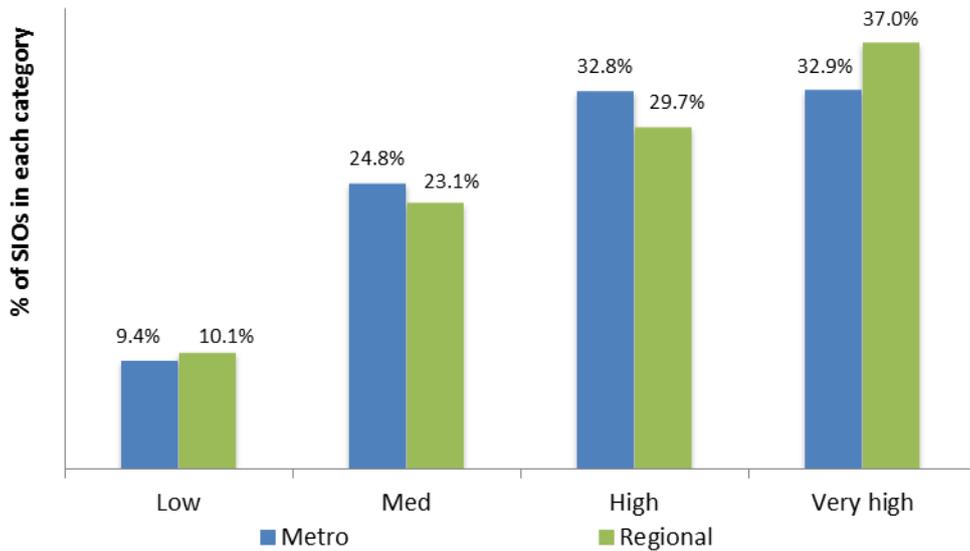
The ACCC also used the Roy Morgan single source data to examine whether the impact of Telstra’s price premium across various categories of post-paid and pre-paid plans affect regional and metropolitan consumers differently. For this purpose, the ACCC looked at the proportion of Telstra’s post-paid and pre-paid customers across the different price categories in regional and metropolitan areas.

Figures 11 and 12 below show that regional and metropolitan customers are distributed fairly similarly across various price categories. This means that, for those that do choose Telstra’s services, the impact of the price premium is comparable in terms of the proportion of users affected in metropolitan and regional areas.<sup>76</sup>

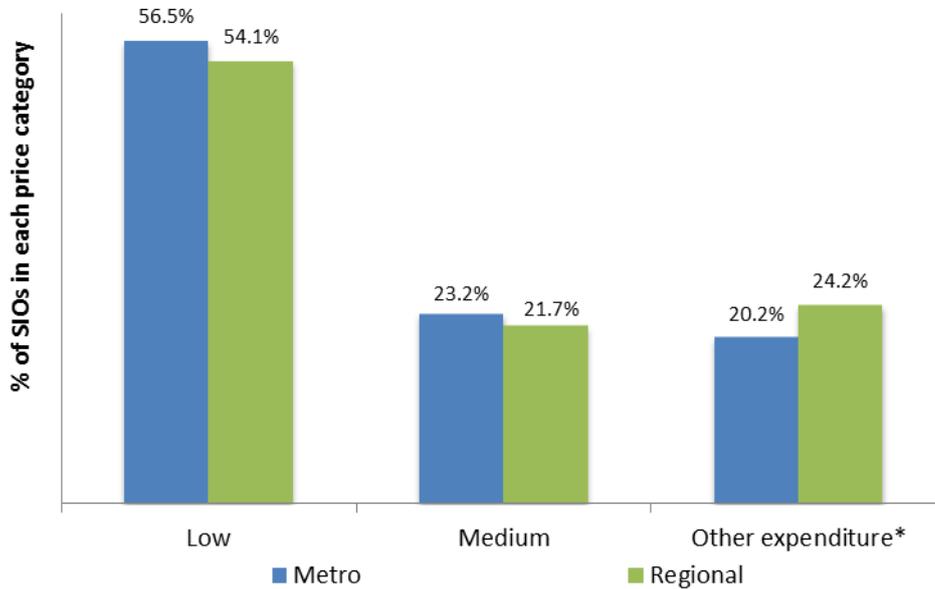
<sup>75</sup> Roy Morgan Single Source (Australia), January 2016 – December 2016, n=75974, Australian 14+; Data from Division 12 Record Keeping Rules return June 2016; ACCC analysis on retail prices.

<sup>76</sup> In order to show a level of premium representative of each price category, we averaged the premium of individual plans weighted by the number of subscribers in each plan within a category.

**Figure 11 – Telstra’s post-paid metropolitan and regional customers are distributed similarly across various price categories (%)<sup>77</sup>**



**Figure 12 – Telstra’s pre-paid metropolitan and regional customers are distributed similarly across various price categories (%)<sup>78</sup>**



<sup>77</sup> Roy Morgan Single Source (Australia), January 2016 – December 2016, n = 50144, Australians 14+.

<sup>78</sup> Roy Morgan Single Source (Australia), January 2016 – December 2016, n = 50144, Australians 14+.

## Summary of findings on Telstra's price premium

In summary, the ACCC finds that:

- Telstra charges higher prices for data in most of its plans compared to the other MNOs. The differences are most significant in low category post-paid plans and pre-paid plans, and materially less in medium, high and very high categories of post-paid plans.
- Based on a SIO-weighted average across pricing options, data inclusions are almost 50 per cent more expensive in Telstra's post-paid plans and more than 100 per cent more expensive on its pre-paid plans in comparison to equally priced options on other networks.
- However, over the last five years, Telstra has increased the overall range of plans at different price points and the premium that Telstra charges for its services appears to have generally declined for most post-paid services. We consider these trends indicate some degree of responsiveness by Telstra to competitive pressure over time.
- The majority (66 per cent) of Telstra's customers are on plans with the lowest price premium, while a smaller proportion (34 per cent) of Telstra's customers are on plans with a higher premium.
- Based on the distribution of Telstra's customers across various price points, there is no evidence that price premium impacts metropolitan consumers and regional consumers differently.
- The findings supports the view that Telstra targets specific segments of the markets, particularly higher spend post-paid customers.

### 5.2.4. Reasons for Telstra's higher prices and market shares

The discussion above shows that Telstra has a significantly higher share of customers in regional areas and generally charges higher prices for its services compared to the other MNOs. This could indicate that where consumers have a choice of providers, they are willing to pay a premium for Telstra's services.

In its submissions to date, VHA has argued that Telstra's higher prices and market shares reflect the following:

- Telstra has significant market power resulting from the fact that it has the largest geographic coverage, and has exclusive coverage for over 60 per cent of the mobile geographic coverage area in Australia.
- Other MNOs, including VHA and Optus, are unable to match Telstra's geographic coverage because it would be uneconomic to do so.
- Telstra's geographic coverage is important to almost all regional consumers and some metropolitan consumers resulting in up to 40 per cent of all consumers being captive to Telstra's services.
- Telstra's dominance in regional Australia is not caused by reasons other than Telstra's geographic coverage.
- Ineffective competition in regional Australia has a 'spill-over' effect in the metropolitan market.
- Uniform national pricing does not constrain Telstra and in fact may be a transmission mechanism whereby the lack of competition in regional areas is transmitted back to dampen competition in metropolitan areas.

On the other hand, Telstra and Optus have argued that:

- The MNOs compete on a number of factors, and that geographic coverage is only one of these factors with quality of the network being another. MNOs do not need to have equal geographic coverage in order to compete.
- As Optus continues to make investment in regional areas, it will be able to more effectively compete with Telstra.
- While consumers in some regional areas have limited choice of providers, national uniform pricing means that they enjoy the same competitive pricing as metropolitan consumers.

The ACCC considers that at the heart of these competing arguments is the question as to why Telstra is able to command a higher market share while charging higher prices compared to the other MNOs.

Consistent with its preliminary view, the ACCC considers it is uncontroversial that given Telstra's larger geographic coverage, it has a competitive advantage over its competitors in competing for consumers who value or require larger geographic coverage. However, this in itself does not necessarily mean that Telstra's higher prices and market share are predominantly due to its larger geographic coverage. The reasons for Telstra's current market position are critical to assessing whether declaration of a mobile roaming service would promote competition and the extent to which it would do so.

### **Many consumers choose Telstra for 'better coverage'**

The Roy Morgan single source data that the ACCC obtained since the draft decision provides evidence as to the reasons why consumers choose their current mobile service providers. A list of possible reasons was provided to those surveyed, from which participants could choose more than one reason. In considering these consumer survey data, the ACCC recognises that for some consumers, their choice may be limited sometimes to only one provider.<sup>79</sup>

The key observations from the Roy Morgan single source data are:<sup>80</sup>

- Overall, 39 per cent of consumers said that they chose their current provider because of better coverage (the meaning of 'coverage' is not defined in this context and a more nuanced description of coverage as a decision factor is discussed below). This is the single most popular reason that consumers indicated in choosing their provider.
- Other popular reasons that consumers choose their current service provider include cheaper rates (30 per cent), clear pricing (26 per cent), and better connection/reliability (21 per cent).
- Consumers outside capital cities are more likely to choose their service provider for better coverage with 48 per cent citing this as one of the reasons. In comparison, 35 per cent of consumers in capital cities chose their current provider because of better coverage.
- Telstra is clearly preferred for consumers who choose service providers for better coverage. Out of all consumers that cited better coverage as a reason, 73 per cent were with Telstra, 13 per cent were with Optus and 6 per cent were with VHA. This is even

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<sup>79</sup> We also note that some consumers also appear to have acquired two separate mobile services in order to get coverage in all the areas that they travel to. See Andrew Broad MP, *Submission to Australian Competition and Consumer Commission Mobile Roaming Inquiry*, 27 February 2017.

<sup>80</sup> Roy Morgan Single Source (Australia), July 2016 – December 2016, n = 6364, Australians 14+.

more pronounced in regional areas, where 83 per cent of regional consumers who cited better coverage as a reason for choosing their provider were with Telstra.

- Telstra customers are also more likely to value better coverage with 69 per cent of all Telstra customers choosing Telstra because of better coverage, compared to 23 per cent for Optus and 15 per cent for VHA.
- While regional consumers clearly place more value on better coverage, it is somewhat counter-intuitive that a slightly higher proportion of Telstra's customers in capital cities chose Telstra for better coverage (70 per cent) than in regional areas (66 per cent). We also note that a greater proportion of VHA customers outside capital cities (19 per cent) chose VHA for better coverage than in cities (13 per cent). The proportions of Optus customers who chose it because of better coverage are comparable in cities (23 per cent) and outside cities (21 per cent).
- Better connection/reliability is the second most popular reason for consumers picking Telstra (31 per cent), followed by the fact that Telstra is a company that the consumer trusts (23 per cent) and reputation (20 per cent).
- On the other hand, the top reasons for choosing Optus and VHA are cheaper rates (38 per cent for both) and clear pricing (32 per cent for Optus and 30 per cent for VHA).

The above observations show that 'better coverage' is the most significant reason for consumers choosing Telstra over other service providers. However, not all consumers chose their service providers in order to get 'better coverage'. Overall, the majority of consumers (61 per cent) chose their providers for reasons other than coverage. Even outside the capital cities, just over half of the consumers (52 per cent) chose their providers for reasons other than coverage.

It is however interesting to note that a proportion of consumers also chose Optus and VHA because they believed they had 'better coverage' including in areas outside the cities. A greater proportion of VHA customers outside the cities thought VHA had better coverage than the others compared to VHA customers in cities. Given Telstra's greater geographic coverage and VHA's smaller coverage footprint outside the cities, these observations strongly suggest that consumers interpret 'better coverage' to mean more than just geographic coverage. We consider it highly likely that many would interpret coverage to mean depth of coverage, or better network quality.<sup>81</sup>

For these reasons, the ACCC considers that while the Roy Morgan data clearly shows a preference for Telstra's services, especially in regional areas, because of its 'better coverage', the concept of coverage is likely to encompass more than just geographic coverage.

### **MNOs generally agree that consumers value more than just geographic coverage**

Telstra submitted that in customers' minds, geographic coverage is not the only dimension of 'coverage', and that network availability, reliability and speed are also key competitive differentiators. Telstra clearly considers that the reference to coverage in consumer responses to survey may not be referring to geographic coverage, but rather coverage quality such as in-building coverage. Telstra argued that advertising that appears to focus on geographic coverage could also be used to indicate the quality of the network in general.

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<sup>81</sup> The ACCC does not consider that the existence of the reason 'better connection/reliability' in the survey means that consumers would clearly distinguish between geographic coverage and network quality when responding to the survey questions.

Telstra also submitted that with the growth of data and smartphone use, certain network attributes, such as in-building coverage and network capacity have become much more important.<sup>82</sup>

Optus noted that consumers care about the depth and breadth of coverage across the country. It considered that service quality and network coverage is an important factor on which mobile providers compete. Optus reiterated that while population coverage is a point of differentiation, it is not necessarily the most important consideration for customers when choosing a mobile provider.<sup>83</sup>

VHA's submission on this issue is somewhat unclear. On the one hand, VHA argued that national geographic coverage is a salient feature of mobile services. To support this, VHA referred to various findings from consumer surveys which suggest that many consumers consider 'network coverage' to be important. As discussed above, the interpretation of the word 'coverage' by consumers could encompass matters of network quality and coverage depth and does not necessarily only mean geographic coverage.<sup>84</sup>

On the other hand, VHA also appears to acknowledge that network quality is likely to be an important factor which has contributed to Telstra's market position. VHA provided data from the P3 Mobile Benchmark to show that beyond major cities, Optus and VHA cannot compete with Telstra on quality because they cannot match the number of mobile sites Telstra has outside major cities. VHA argued that the number of sites a MNO has affects both coverage reach and quality of network (i.e. site density) and therefore 'coverage' and 'quality' are likely to mean the same things outside the metropolitan areas.<sup>85</sup> This is somewhat inconsistent with VHA's claim in the inquiry so far that the source of Telstra's market power is its coverage in the Telstra-only areas, which VHA argued affects a significant number of metropolitan consumers and almost all regional consumers that require or value coverage in these areas.<sup>86</sup>

The ACCC agrees that the number of mobile sites that an MNO has could affect the coverage reach (geographic coverage) as well as the coverage depth of that MNO's network. However, there is a clear difference between an MNO having a competitive edge because it has mobile sites in areas that other MNOs do not have coverage in and an MNO having a competitive edge because it has higher cell site density in an area where other MNOs also have coverage. In the former case, the MNO is the only network with coverage and therefore is the only provider of choice for consumers that require coverage in those areas, regardless of whether the consumers live in those areas or not. In the latter, there are alternative choices for consumers who require coverage in those areas but consumers may prefer the MNO with the higher cell site density because it would have a better quality network.

For this reason, the ACCC considers that for the purpose of this inquiry, it is important to ascertain whether Telstra's market position is likely to be primarily a result of it having coverage where other MNOs do not, or of it having a better network coverage in areas that other MNOs do have coverage.

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<sup>82</sup> Telstra, Submission to draft decision, pp. 9–12; Telstra, Submission to draft decision, *Report of Andrew Bailey*, p. 5.

<sup>83</sup> Optus, Submission to draft decision, p. 21.

<sup>84</sup> VHA, Submission to draft decision, Attachment D, pp. 45–46.

<sup>85</sup> VHA, Submission to draft decision, Attachment D, pp. 41–43.

<sup>86</sup> See for example, see VHA, Submission to draft decision, Attachment D, p. 28; and VHA, *Domestic mobile roaming declaration inquiry: Part A of the submission by Vodafone Hutchison Australia*, 5 December 2016, p. 8. (VHA, Submission to discussion paper)

## **There is no clear correlation between market shares and geographic coverage gap over time**

In reaching its preliminary view, the ACCC compared the movements in the MNOs' market shares and their population coverage from 2008 to 2015. The ACCC did not find a clear relationship between these.<sup>87</sup> While VHA referenced the figure that the ACCC used in reaching its preliminary view, VHA did not specifically address the lack of relationship observed between market shares and population coverage.<sup>88</sup> Further, Mr Feasey in his second expert report for VHA claims that MNOs' conduct and the resulting prices and market shares in the Australian market suggest that a significant proportion of consumers choose, or would choose Telstra at lower prices, because they value the coverage its network offers.<sup>89</sup>

The ACCC does not have sufficient information on the size of each of MNOs' geographic coverage for a sufficiently long period of time to enable a similar comparison between market shares and geographic coverage over time. The ACCC notes however that population coverage and geographic coverage, while measured differently, are both measures of the coverage reach of an MNO's network and therefore are likely to move in the same direction.

The ACCC notes VHA's argument that small differences in population coverage translate into large differences in geographic coverage. While this is a reasonable proposition, it does not change the fact that in the large mass of area where Telstra is the only MNO, it only covers where 0.8 per cent of the population resides. It is true that consumers in such areas are more likely to travel further than consumers in more populated regions. However, this does not necessarily support VHA's argument that almost all regional consumers and a significant proportion of metropolitan consumers require the geographic coverage in those Telstra-only areas such that it is the only determinant of Telstra's market position in regional areas and nationally. The ACCC recognises that there are likely to be some consumers who strongly prefer Telstra's network because of its geographic coverage. However, the ACCC does not consider that VHA's claims on the significant size of this group and the overall impact on market outcomes are supported by evidence.

The ACCC also does not agree with VHA's claim that Telstra's market position in regional Australia is due to its geographic coverage, and not any other factors. This is discussed further below.

## **Network quality appears to be a significant driver of market share**

The ACCC has considered how Telstra's higher market share relates to other indicators of network quality, like coverage depth. The ACCC observed that in a number of cases where the three MNOs claim to have network coverage, Telstra has a substantial share of consumers who reside in these areas. For example, Figures 13 to 15 below show areas in regional Victoria where all MNOs provide 3G or 4G coverage, as advertised on their websites.

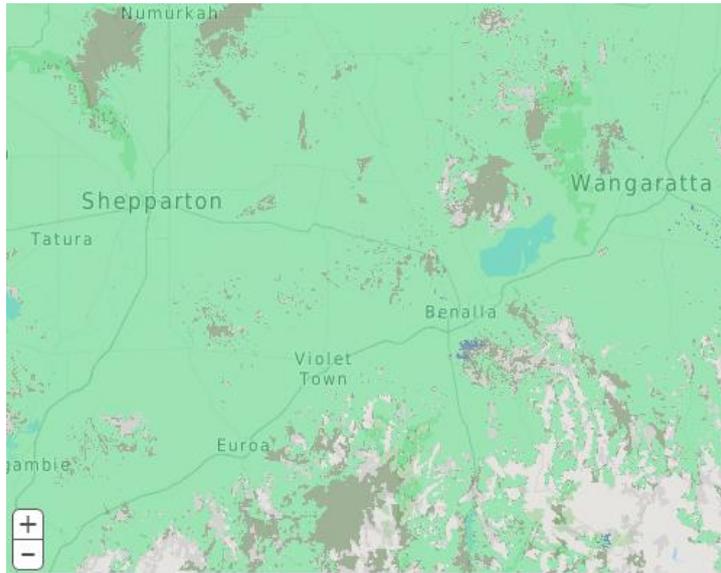
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<sup>87</sup> ACCC, Draft decision, p. 31.

<sup>88</sup> VHA used the figure to rebut the ACCC's view that recent increase in Telstra's market share was likely driven by VHA's network issues. VHA noted that the figure shows that Optus' market shares declined during the same period although it did not experience any network issues. See, VHA, Submission to draft decision, Attachment D, p. 42.

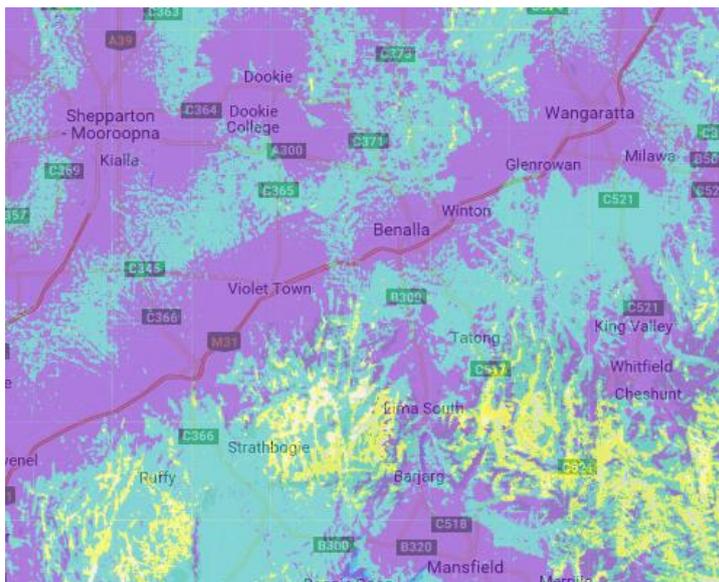
<sup>89</sup> VHA, Supplementary submission to discussion paper, *Response to Professor George Yarrow's submissions to the ACCC in the Domestic Mobile Roaming Enquiry 2016* by Richard Feasey, p.15.

**Figure 13 – Telstra’s coverage<sup>90</sup>**



Note: Green: 4GX, grey: 3G external antenna.

**Figure 14 – Optus’ coverage<sup>91</sup>**

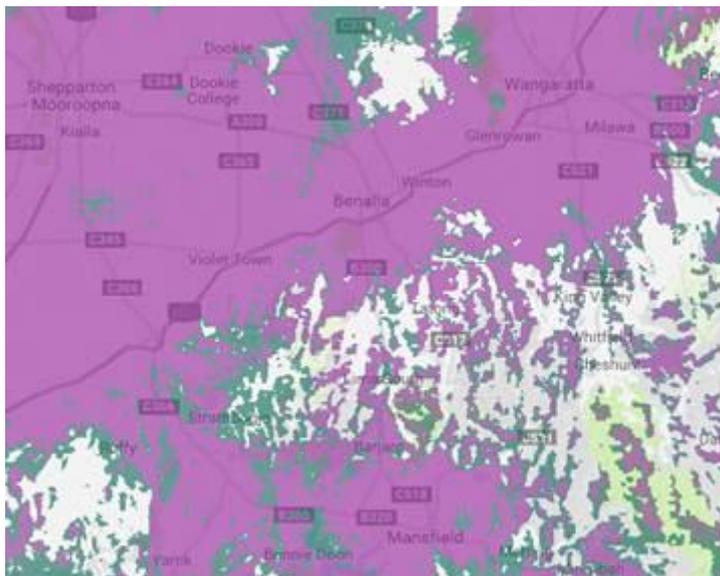


Note: Purple: 4G Plus outdoor, green: 3G outdoor, yellow: 3G with antenna.

<sup>90</sup> Telstra, *Our coverage - 4GX*, accessed 22 August 2017 at: <https://www.telstra.com.au/coverage-networks/our-coverage>.

<sup>91</sup> Optus, *Mobile network coverage – 4G Plus*, accessed 22 August 2017 at: <http://www.optus.com.au/shop/mobile/network/coverage>.

Figure 15 – VHA’s coverage <sup>92</sup>



Note: Pink: 4G, green: 3G

While all three MNOs provide mobile coverage in the area, there are likely to be differences in actual customer experience due to many factors. For instance, coverage maps themselves show that there are varying degree of coverage in the area depending on technology, whether the coverage is handheld or using a high-gain antenna and whether the coverage is indoor or outdoor. Roy Morgan data indicate that in this part of northern Victoria, where the three MNOs provide similar geographic coverage, Telstra holds almost 65 per cent market share.<sup>93</sup>

VHA itself provided information on the CommsDay P3 Mobile Benchmark from December 2016, which shows that while network quality in capital cities is comparable between the MNOs, network quality outside capital cities differ significantly. Outside capital cities, Telstra tends to have the best network quality, followed by Optus and then VHA.<sup>94</sup>

A significant factor that is likely to dictate network quality and user experience on the ground is coverage depth, which is determined by the mobile site density in a given area. A closer inspection of MNOs’ mobile infrastructure deployed in this region in northern Victoria shows that there is a considerable difference in the number of mobile sites deployed by each MNO as Telstra operates [c-i-c], Optus [c-i-c] and VHA [c-i-c] in the area.<sup>95</sup>

The data suggest that despite MNOs’ similar coverage reach in a particular area it is likely that consumers are able to perceive material quality differences between networks due to differences in site density. It is likely that similar levels of site density are replicated in other regional areas. This suggests that one plausible reason for significant market share differences in many areas served by two or the three MNOs is the network quality from site density.

<sup>92</sup> VHA, *Coverage checker – 4G*, accessed 22 August 2017 at: <http://www.vodafone.com.au/network/coverage-checker>.

<sup>93</sup> Roy Morgan Single Source (Australia), January 2016 – December 2016, n=157255, Australians 14+.

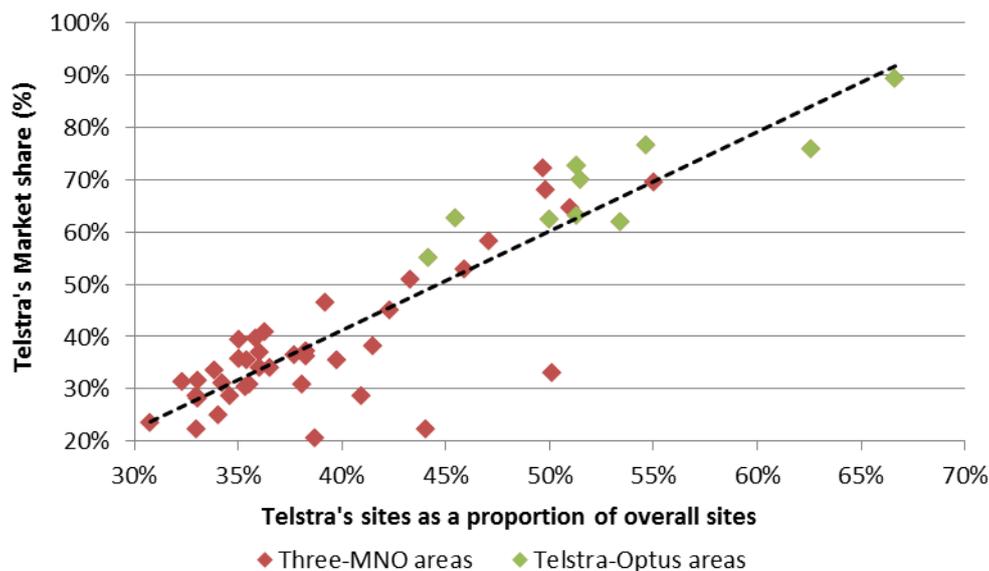
<sup>94</sup> VHA, Submission to draft decision, Attachment D, p. 41.

<sup>95</sup> ACCC Infrastructure Record Keeping Rules returns from the MNOs in 2017.

To assess whether site density, as a proxy for network quality, is likely to be a significant driver of market share differences, the ACCC examined the relationship between each MNO's site presence and its market share in each of 60 Roy Morgan research areas.<sup>96</sup>

Figure 16 below shows Telstra's relative site presence in relation to its market share in areas where at least two MNOs provide coverage. We have excluded from the analysis research areas that encompass a majority of Telstra-only coverage to remove the impact of additional mobile sites that lead to wider geographic reach rather than higher site density.

**Figure 16 – Telstra's relative coverage density and market share (%)<sup>97</sup>**



The graph shows that in most of the areas examined, Telstra's larger market share corresponds to a higher site density. This trend can be observed in both Telstra-Optus areas (green dots) and in three-MNO coverage areas (red dots).<sup>98</sup> The figure suggests that, with a few exceptions in three-MNO areas, Telstra's market share increases more than proportionally to the density of its sites. For example, once Telstra reaches 45 per cent of all mobile sites in an area it gains more than 50 per cent of market in that area.

Conversely, the data suggest that Telstra's market share decreases in areas where Telstra has a less discernible site density advantage than its competitors (under 45 per cent of relative site presence).

The above data provides evidence that strongly suggests Telstra's market advantage in both metropolitan and regional areas can be explained to a significant extent by Telstra's higher coverage depth relative to other MNOs. This is a reasonable outcome, as better coverage depth implies a better and more consistent user experience.

<sup>96</sup> An MNO's relative coverage density as a percentage represents the number of sites operated by that MNO as a proportion of all mobile sites in a particular area.

<sup>97</sup> ACCC Infrastructure Record Keeping Rules returns from the MNOs in 2017; Roy Morgan Single Source (Australia), January 2016 – December 2016, n = 50144, Australians 14+.

<sup>98</sup> The classification of a Roy Morgan area as "Telstra-Optus" or "three-MNO" was made based on the ACCC's judgement on whether mobile coverage in the majority of the area was provided by either two or the three MNOs.

## Investment strategies of the MNOs' shed light on important competitive dynamics

The ACCC received a significant amount of information on the MNOs' past and future investments in mobile network infrastructure as well as explanations of their investment strategies. The ACCC considers that these strategies provide insights on what the MNOs believe consumers value and how they could compete more effectively with each other.

The fact that Telstra first built the largest 3G network in Australia in 2005 in order to differentiate itself on regional coverage is not in doubt. Telstra submitted in response to the discussion paper in December 2016 that its decision to invest in the 'city to country' Next G network would enable it to offer better quality network with better coverage overall in terms of breadth and depth into buildings, and particularly for rural and regional Australia.<sup>99</sup> Telstra also noted that the ultimate aim of its investments is to maintain superiority with respect of both coverage breadth and depth against Telstra's competitors.<sup>100</sup>

Telstra's submission on its investment strategy suggested that while its aim was to build and maintain the largest network in Australia, there was also a strategic focus on the quality of coverage in regional areas.

The gaps in geographic coverage between Telstra and its competitors have narrowed over the years. Both Optus and VHA extended their 3G networks to cover over 95 per cent of the population. The significant difference in the size of the networks between Telstra and its closest competitor Optus could suggest that Optus' investment strategy does not currently focus on matching the geographic coverage of Telstra.

Optus submitted that its investments in regional areas are focused on improving the quality of its network such that **[c-i-c]**

This clearly shows Optus believes it is possible for it to gain customers from Telstra in regional areas by improving the quality of its network, without necessarily having to match Telstra's geographic coverage. This is consistent with our findings above that where Telstra has better depth of coverage, as demonstrated by site density, it significantly explains its market advantage.

Further, there is evidence that Telstra needs to respond to investments from Optus in order to maintain its leadership position in both metropolitan and regional areas. In response to the discussion paper, Telstra provided **[c-i-c]**

### **[c-i-c]**

The ACCC considers that this clearly shows that Telstra's geographic advantage by itself does not make it immune to competitive pressure, even in regional areas, or as claimed by VHA, that Telstra is able to leverage its coverage in the Telstra-only areas to harm competition.<sup>101</sup> In fact, competitors can effectively compete with Telstra for market share, including in regional areas, without having to significantly increase their geographic coverage or match Telstra's geographic coverage. In particular, the quality of the network such as coverage depth appears to be a significant driver of market shares in regional areas. Optus' and Telstra's past and current investments show that they actively compete on network quality and there are no barriers to competing over network quality and coverage depth.

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<sup>99</sup> Telstra, *Response to the ACCC's Discussion Paper on the declaration of a wholesale domestic mobile roaming service*, Statement of Michael James Wright, 1 December 2016, p. 17. (Telstra, Submission to discussion paper)

<sup>100</sup> *ibid.*, p. 46.

<sup>101</sup> VHA, Supplementary submission to discussion paper, Part A, p. 52.

On the information provided, VHA does not currently appear to have an investment strategy to extend geographic coverage to match either Optus' or Telstra's as it argued that, in the absence of declared roaming, it is uneconomic for it to do so. Based on the information provided by VHA, it appears that VHA's investment strategy is also focused on improving the quality of its network in both metropolitan and regional areas. **[c-i-c]**

However, despite VHA's claims, the ACCC considers there is evidence that VHA intends to continue to invest to improve its network **[c-i-c]** For instance, VHA recently announced a \$2 billion investment in 2017 to improve coverage, capacity and performance of its network. According to the announcement, this investment will encompass mobile technology, around 1,800 new or upgraded sites, spectrum licence payments and fibre transmission rollout.<sup>102</sup>

While VHA's geographic coverage remains the smallest out of the MNOs', the ACCC considers that VHA's planned investments suggest an intention to compete on network quality in areas where it has coverage. Such investments support the view that there is potential for VHA to improve its market position in regional areas by improving the quality of its own regional network, which covers up to 95.7 per cent of the population. While only Optus and Telstra appear to be able to compete effectively for consumers who value coverage outside VHA coverage areas, the ACCC does not consider the MNOs need equal geographic coverage to be able to compete effectively in the mobile services market.

TPG's pending entry into the mobile services market provides support to this view. Following TPG's purchase of the unsold 700 MHz band spectrum for \$1.2 billion in April 2017, TPG announced its plan to spend \$600 million over three years to build a mobile network that covers 80 per cent of the population.<sup>103</sup> While a mobile roaming service may benefit a new entrant such as TPG, there is no evidence that TPG's pending entry or its significant investment in spectrum to date depend on it being able to secure a roaming agreement with existing providers or a roaming service being declared by the ACCC. The ACCC considers that the intention of TPG to build a mobile network in predominantly metropolitan areas further shows that wider geographic coverage is not essential for an MNO to effectively compete in the mobile services market.

### **Perception and marketing may have some influence on consumer choice**

The ACCC considers that consumers' perception of a network may influence to some extent consumers' choices. The Roy Morgan data show that a substantial number of Telstra consumers chose Telstra because of its reputation (20 per cent) and because it is a company they trust (23 per cent).<sup>104</sup> This suggests that consumers' perception of the desirable qualities of a network may not be based on actual experience with the network or a comparison with other networks. The ACCC also notes, however, that issues of trust and reputation can be influenced by instances of past poor network performance; or media coverage of these events (e.g. such as the widely-reported coverage of network failure issues VHA had in the past).

It is also possible that such perceptions could be influenced by marketing practices by the MNOs. Telstra submitted that **[c-i-c]**

The ACCC considers that there is some evidence that some consumers perceive that Telstra has a superior network and that this has influenced their choice of provider. It is also plausible that all MNOs are continuing to market their services in a way to influence

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<sup>102</sup> VHA media release, *Vodafone reveals almost \$2 billion mobile technology spend in 2017*, 1 August 2017, accessed on 24 August 2017 at: <https://www.vodafone.com.au/media/vodafone-reveals-almost-2-billion-mobile-technology-spend-for-2017>.

<sup>103</sup> Sydney Morning Herald, *TPG to build own mobile network after \$1.2b spectrum splurge*, 12 April 2017.

<sup>104</sup> Roy Morgan Single Source (Australia), July 2016 – December 2016, n=6364, Australians 14+.

consumers' perception of their services. However, the ACCC considers it is unlikely that perception and marketing would be enduring drivers of market shares over time as consumer choice is more likely to be influenced in the longer term by actual experience.

### **Store presence may explain some of the market share differences in some areas**

The ACCC expressed the preliminary view that there is some evidence that greater retail store presence in an area contributes to an MNO's market share in that area.<sup>105</sup> Telstra agreed with this observation and provided further information to support this.

Information provided by Telstra shows that where VHA has the greatest retail presence, i.e. in capital cities, it has the highest market share.<sup>106</sup> Telstra also showed that [c-i-c] Telstra further identified Western Sydney as an example where [c-i-c]

In Frontier Economics' report prepared for VHA, it considered that instead of retail store presence contributing to greater market shares in an area, higher market shares in an area may lead to more stores.<sup>107</sup>

The ACCC considers that there is evidence of a clear correlation between retail store presence and market shares in different areas. It is plausible that, in general, the more retail stores an MNO has in an area, the more likely it is able to promote its services to consumers in that areas and gain market share.

However, it is also possible that in some areas, an MNO may not have incentives to deploy many stores if it believes that doing so is unlikely to contribute to it gaining market share. For instance, in areas where an MNO does not have any coverage or only has poor coverage, it may not have commercial incentives to deploy many stores until it has also improved its underlying network in those areas to be able to attract more customers.

### **Summary of findings on reasons for Telstra's higher prices and market shares**

Based on the evidence available to the ACCC in this inquiry, the ACCC has found that:

- Telstra clearly has the largest geographic coverage compared to the other MNOs and this logically means that it would strongly appeal to consumers who value coverage in areas where it is the only MNO. However, there is no evidence that geographic coverage is the only or most important driver of competition in the mobile services market.
- There is evidence that Telstra's network quality, such as better coverage depth, is a significant driver of its market shares across different regions. This means that Telstra has a competitive advantage over its competitors in areas where its competitors also have coverage.
- The MNOs' investment strategies support the view that network quality is the key to gaining market share, including in regional areas. Optus' and Telstra's investment strategies and competitive dynamics, in particular, show that Telstra faces competitive pressure in regional areas despite its large geographic coverage advantage.
- It is possible that other factors such as store presence, consumer perception and marketing may influence market shares and partly explain Telstra's market position.

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<sup>105</sup> ACCC, Draft decision, p. 33.

<sup>106</sup> Telstra, Submission to draft decision, pp. 12–13.

<sup>107</sup> Frontier Economics, *Consumer impact from domestic roaming*, 16 June 2017, p. 15.

However, in the longer term, these factors may not be as significant as actual experience with the network in driving consumer choice.

### **5.2.5. Other matters relating to the state of competition**

This section addresses three related matters which were raised in submissions, in particular by VHA. The first relates to VHA's argument that Telstra's network in the Telstra-only areas constitutes a natural monopoly and it is uneconomic for other MNOs to replicate its infrastructure in those areas. The second relates to the implications of uniform national pricing and its implications for regional consumers. The third relates to Richard Feasey's observation that the ACCC failed to consider whether Telstra earns excessive economic profits.

#### **Whether Telstra-only areas are a 'natural monopoly' does not impact the findings of this inquiry**

One of the preliminary questions on which the ACCC sought views in the discussion paper was the extent to which mobile networks may exhibit natural monopoly characteristics.<sup>108</sup>

This recognises that in sparsely populated regional and remote areas, demand may only be sufficient to profitably support the deployment of mobile network infrastructure by one MNO.

In reaching its preliminary view, the ACCC assessed information provided by the MNOs in relation to whether it would be viable in the future for other MNOs to deploy infrastructure in the Telstra-only areas. The ACCC noted that while this information would not help in precisely defining the areas in which a mobile network may exhibit natural monopoly characteristics, it would indicate, together with information on MNOs' investment plans, the likely areas in which infrastructure competition is likely to emerge in the future. It became apparent that, based on the findings on the state of competition, whether Telstra's network in the Telstra-only area exhibit natural monopoly characteristics and the precise area in which it does is not a determinative question in the inquiry. This is because the ACCC's preliminary view was that the MNOs compete on a number of factors and that competition is not significantly adversely affected by Telstra's exclusive coverage in the Telstra-only area.

VHA submitted in response to the draft decision that the ACCC failed to undertake a structural analysis to identify the impact of a natural monopoly on competitive dynamics in regional areas. VHA argued that regional areas with low population density are not contestable and are therefore susceptible to natural monopoly and first-mover advantage.<sup>109</sup> In Dr Derek Ritzmann's report prepared for VHA, he argued that an important factor to consider is whether other MNOs have the ability to close the gap in geographic coverage with Telstra, which is relevant to determining whether coverage differences are a result of competition.<sup>110</sup>

As outlined in the previous section, the ACCC has undertaken analysis of the competitive dynamics in regional areas and concluded that Telstra's exclusive coverage in the Telstra-only area does not mean that other MNOs cannot effectively compete with Telstra in the broader regional areas. In fact, the ACCC found that there is evidence that MNOs can compete effectively on other factors, such as network quality.

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<sup>108</sup> ACCC, Discussion paper, p. 30.

<sup>109</sup> VHA, Submission to draft decision, Attachment B, pp. 4, 7; VHA, Submission to draft decision, Attachment C, p. 3; VHA, Supplementary submission to discussion paper, Part A, pp. 36–39.

<sup>110</sup> VHA, Submission to draft decision, Attachment F, *Dr Derek Ritzmann's Comments on the ACCC Draft Decision on its domestic mobile roaming declaration inquiry*, pp. 6–8.

More broadly, the ACCC considers MNOs compete with each other on a national basis. However, this does not mean they each offer identical products, or that a market requires market participants to all offer identical products in order for them to apply competitive constraints to each other. In this instance, MNOs seek to differentiate themselves from each other across a number of competitive dimensions. These include network quality, reliability, depth of coverage, price, service inclusions (e.g. data allowances, call minutes and SMS inclusions) in addition to geographic coverage. The consequence of this is that each MNO will be relatively more or less attractive in different ways for different groups of consumers. The ACCC reiterates that not all MNOs have to offer precisely the same network coverage, at the same price, and with the same level of service. Competitive constraint can be applied effectively where there are different dimensions of competition.

It follows, therefore, that the ACCC does not accept VHA's suggestion that competitive dynamics in mobile markets can be assessed simply by reference to whether or not it would be profitable for an MNO to deploy infrastructure in particular areas where only Telstra (or Telstra and Optus) has already deployed such infrastructure.

The ACCC also observes that while it is certainly possible that in some remote parts of Australia it is currently not profitable for more than one MNO to build mobile network infrastructure, it is possible that with changing technology and innovations there will be less costly solutions to provide wider geographic coverage in the future. For instance, the use of small cell technology, which is already widely deployed by the MNOs, provides a more cost-effective way to cover small areas. Another example is Wi-Fi calling, which potentially enables consumers to use their mobile phones in areas where there is no mobile coverage by utilising other broadband networks.<sup>111</sup> This means that the development of technology has the potential to change the economics of extending or providing coverage in regional and remote parts of Australia.

### **Consumers that value coverage in Telstra-only areas benefit from uniform national pricing and Boost services**

The ACCC recognises that there are some consumers who strongly value or require geographic coverage in the Telstra-only areas and that this means they have no choice but to choose Telstra for their mobile services.

The ACCC's preliminary view was that it did not consider that, overall, consumers who require coverage in Telstra-only areas are suffering a significant detriment compared to consumers in other areas who have wider choice of service providers. The ACCC considered that this is because:

- Telstra's retail offers have improved in recent years and are close to its competitors in some price categories,
- Boost provides coverage in the Telstra-only areas, and
- Uniform national pricing means that competition in the national mobile services market will continue to deliver to these consumers any price reductions over time.<sup>112</sup>

Submissions are mixed in relation to these preliminary views.

Telstra and Optus agreed that uniform national pricing means that despite limited infrastructure competition in some regional areas, consumers in these areas benefit from the

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<sup>111</sup> See Telstra, Submission to draft decision, p. 30.

<sup>112</sup> ACCC, Draft decision, p. 43.

same prices and data inclusions as metropolitan consumers.<sup>113</sup> Telstra also noted that price-sensitive customers in regional and rural Australia are increasingly aware of the choice offered by the Boost brand.<sup>114</sup>

VHA argued that uniform national pricing does not constrain Telstra in regional areas because:

- Uniform national pricing is not required by law so Telstra could de-average its prices at any time.
- Uniform national pricing disguises Telstra's excessive profits. Price discrimination is occurring because Telstra has market power and can therefore set higher nationally uniform price points than other MNOs, and choose not to offer a set of lower price points, knowing that many consumers are captive to higher price points of Telstra's.
- Telstra can tactically choose to lose metropolitan market share in cheaper market segments knowing that in doing so Telstra will force other consumers in metropolitan and regional areas to pay higher prices in order to acquire Telstra's full coverage product.
- While price can be argued to be nationally average, quality is not. The value that metropolitan consumers receive is far greater than regional consumers for the same price – reflecting underlying differences in quality between regional and metropolitan areas.<sup>115</sup>

In Dr Ritzmann's report prepared for VHA, he argued that the ACCC only considered that uniform national pricing ensures competitive pricing in regional areas, but did not sufficiently consider the potential for uniform national pricing to dampen competition in metropolitan and other potentially competitive areas.<sup>116</sup>

In addition, VHA argued that the ACCC overstated the competitive relevance of Boost, as Boost is beholden to Telstra as a reseller of Telstra's network services, so there is no guarantee that Boost will continue to offer full coverage at lower price points, or, for that matter continue to offer full coverage at all. VHA also argued that Boost does not provide any competitive constraint on Telstra.<sup>117</sup>

Pivotel similarly noted that Boost does not compete with Telstra and is a Telstra retail brand that can compete for consumers who are otherwise not attracted to the Telstra brand and its premium price position.<sup>118</sup>

Based on the findings discussed above on the reasons for Telstra's higher prices and market shares, the ACCC remains of the view that consumers who value geographic coverage in the Telstra-only areas benefit to some extent from uniform national pricing for the following reasons.<sup>119</sup>

First, it is clear that the cost of providing mobile services (measured on a per unit or per consumer basis) is relatively higher in more remote parts of the country. It follows, therefore, that if operators charged prices for services in more remote parts of the country that

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<sup>113</sup> Telstra, Submission to draft decision, p. 22; Optus, Submission to draft decision, p. 21.

<sup>114</sup> Telstra, Submission to draft decision, p. 23.

<sup>115</sup> VHA, Submission to draft decision, Attachment C, p. 6; See also, VHA, Supplementary submission to discussion paper, Part A, pp. 22–26.

<sup>116</sup> VHA, Submission to draft decision, *Comments on the ACCC's Draft Decision in its domestic mobile roaming declaration inquiry by Dr Derek Ritzmann of Compass Lexecon*, pp. 3–6.

<sup>117</sup> VHA, Submission to draft decision, Attachment C, p. 10.

<sup>118</sup> Pivotel, Submission to draft decision, p. 6.

<sup>119</sup> See ACCC, Draft decision, p. 38.

reflected the incremental costs of serving them, it is highly likely that consumers in these areas would be charged prices substantially higher than those they presently pay under uniform national pricing arrangements.

Second, the evidence does not establish that Telstra is charging prices that reflect the exercise of any market power. While it is true that it has a higher share of consumers who reside in regional areas of the country, and that it charges uniform national prices that appear to be higher than those of its rivals, it is not clear that this premium reflects the exercise of any market power. For instance, Telstra's higher prices may simply reflect the relatively higher costs it faces when providing network coverage in more remote parts of the country. It may also reflect the higher costs it has incurred to provide a greater depth of coverage in those areas where other MNOs have network coverage. Telstra's market position is driven, in part, by its network quality or depth of coverage in areas where at least another MNO has coverage. For these reasons, the ACCC is not satisfied that Telstra has, to a significant extent, leveraged its exclusive coverage in the Telstra-only areas in setting its prices. Rather, the ACCC considers its higher prices may largely reflect consumers' willingness to pay more for its network quality, especially in regional areas.

As such, while the ACCC acknowledges Dr Ritzmann's proposition that there is potential for uniform national pricing to dampen competition in otherwise competitive areas, the ACCC is not convinced that this is the current case based on the evidence available. The ACCC considers that the current prices charged by the MNOs, by and large, reflects differential pricing in a market with similar but differentiated products and that reflects a certain degree of competition between MNOs that face significantly different cost structures. In a market with differentiated products, it is also reasonable that MNOs would target certain segments of the market, e.g. Telstra may target regional consumers given its better network in those areas. Therefore, the ACCC does not consider that VHA's arguments that Telstra charges higher prices at each price point, or that it may tactically choose to lose some metropolitan market share, can be characterised as leveraging market power to the detriment of competition and consumers.

Third, consistent with the ACCC's preliminary view, price sensitive consumers who require coverage in the Telstra-only areas have access to services under the Boost brand as a cheaper alternative to Telstra. The ACCC understands that Boost is not a separate MVNO or Telstra reseller, but is a brand under which Telstra directly provides mobile services to consumers.<sup>120</sup> In reaching its preliminary view, the ACCC examined the prices of Boost's pre-paid services, which show that its services are significantly cheaper than Telstra's.<sup>121</sup>

VHA and Pivotel claimed that the ACCC considered Boost to be a competitive constraint on Telstra. The ACCC did not find that Boost is a competitive constraint on Telstra. Consistent with the findings above, the ACCC considers that Telstra faces competitive constraint in providing services in both regional areas and in the national market from other MNOs. This means that overall it cannot exercise monopoly power in respect of consumers who value its exclusive coverage in the Telstra-only areas. Further, price-sensitive consumers that value Telstra's wider geographic coverage, have the alternative of acquiring mobile services at a cheaper price from Boost. The fact that Telstra provides services over its entire footprint under a different brand at lower prices lends further support to the existence of some competitive constraint on Telstra despite its larger geographic coverage.

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<sup>120</sup> The geographic coverage provided under Boost services are identical to that provided under Telstra services. However, Boost only supplies prepaid services and the advertising of services provided under the Boost brand is restricted to 4G in areas where 4GX is available.

<sup>121</sup> ACCC, Draft decision, p. 42.

The ACCC also acknowledges that there are underlying differences between the quality of networks in metropolitan and regional areas. However, this does not change the preliminary view that consumers who value coverage in the Telstra-only areas to some extent benefit from competition in the wider mobile services market, even though the quality of the services in these areas may not match that in other areas.

The ACCC notes that outside the Telstra-only areas, competition in respect of network quality remains ongoing. This is likely to result in improvements in network quality in regional areas over time. In the Telstra-only areas, network improvements typically lag behind those in other areas, however, there is still evidence of some investment in these areas. For instance, Telstra recently announced that it has expanded its 4G network to cover 99 per cent of the population, indicating that part of the Telstra-only area has now been upgraded to 4G.<sup>122</sup> The ACCC also considers that under the current competitive dynamics, there is potential for competition to drive improvements in network quality in the Telstra-only areas. This will be further discussed in Section 8.

### **Whether Telstra earns economic profit is not the relevant question**

In Mr Feasey's report, he argued that the ACCC failed to consider whether Telstra's higher retail prices reflect the higher costs and quality of its network or the exercise of market power. He noted that the ACCC could have examined whether Telstra has been able to maintain non-competitive profits in its mobile business over a sustained period of time. He also referred to a previous report he prepared for VHA which estimated that Telstra's economic rent is in the order of \$2.1 billion per annum.<sup>123</sup>

Mr Feasey used the report prepared by Ovum for Telstra on the economic viability of other MNOs to match Telstra's coverage in the Telstra-only areas to estimate the economic rent that Telstra earns each year.<sup>124</sup> He concluded that after comparing the estimated market revenue share that Optus needs to make it profitable for it to match Telstra's geographic coverage and Telstra's actual market share revenue, Telstra earns an additional \$2.1 billion per year in revenue which is not needed for it to recover its cost of building and operating a larger network.

The ACCC has carefully considered the estimate provided by Mr Feasey, and does not consider that Mr Feasey's analysis can support a finding that Telstra is earning economic rent from the provision of retail mobile services because of its larger geographic coverage. The ACCC's reasons are set out below.

First, Mr Feasey acknowledges that his estimate of economic rent should be treated with caution.<sup>125</sup> It is clear that the analysis undertaken by Mr Feasey is not meant to be a rigorous assessment of the size of any economic rents, as it is not supported by any detailed cost analysis.

Second, contrary to Mr Feasey's assumption, Ovum's calculation of the additional revenue needed for a second MNO to match Telstra's geographic coverage did not take into account the capital cost of funding the investment. This is one of the reasons the ACCC formed the

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<sup>122</sup> Robyn Denholm, *Early progress in building the networks for the future*, 1 August 2017, accessed on 6 October 2017 at: <https://exchange.telstra.com.au/author/robynd/>.

<sup>123</sup> VHA, Submission to draft decision, Attachment F, *Richard Feasey's comments on aspects of the ACCC's Domestic Roaming Declaration Enquiry Draft Decision*, pp. 8, 17–18; VHA, Supplementary submission to discussion paper, *Richard Feasey's response to Professor George Yarrow's submissions to the ACCC in the Domestic Mobile Roaming Enquiry 2016*, pp. 8–10; VHA, Supplementary submission to discussion paper, Part A, pp. 18–19, 26–27.

<sup>124</sup> See Ovum, *Network investment and domestic roaming*, 2 December 2016.

<sup>125</sup> VHA, Supplementary submission to discussion paper, *Richard Feasey's response to Professor George Yarrow's submissions to the ACCC in the Domestic Mobile Roaming Enquiry 2016*, p. 10;

preliminary view that the Ovum report likely underestimated a second MNO's cost of matching Telstra's geographic coverage in the Telstra-only areas. No submissions to the draft decision have commented on the ACCC's observation on this issue.

Third, Mr Feasey's approach in calculating economic rent appears to assume that the only additional cost that Telstra incurs compared to its competitors relates to the cost of providing geographic coverage in the Telstra-only areas. The ACCC considers that this is highly unlikely to be the case. Instead, Telstra is likely to incur other additional costs that its competitors do not, such as the costs associated with its significantly higher number of mobile sites outside the Telstra-only areas.

Fourth, Mr Feasey's approach suggests that the entirety of the estimated economic rent denotes excess returns that Telstra derives from its market power by reason of its larger geographic coverage. He did not contemplate that returns above costs, could reflect Telstra's competitive advantage in other factors, such as network quality.

The ACCC acknowledges that assessment of whether a firm earns excessive profits over a sustained period of time is generally useful in determining whether the firm has market power and is subject to competitive constraint. However, the ACCC does not consider such an assessment is useful in the present case for the following reasons.

The mobile services market is a market for similar but differentiated products, which means service providers will be able to charge more than their competitors if they provide services which in consumers' views are better. Generally service providers need to invest more and incur higher costs if they are to provide better services. If all service providers can achieve is little more than cost recovery then the incentives to invest and develop better services would be limited. This means that in such a market, it is consistent with competitive outcomes that service providers that do provide better services are able to earn higher profits than their competitors in the short term. The existence of such profits encourages competitors to also invest and innovate, and it is this dynamic process of competition that ensures that any market power is transitory.

Further, determining the extent of economic profit that a firm earns would require consideration of complex cost-allocation questions over time and across different services. It would be unhelpful to do so in the present case because even if it is found that Telstra earns an economic profit, it would be impossible to ascertain the extent to which the economic profit is derived from Telstra's ability to exercise market power due to its larger geographic coverage as opposed to other factors.

Finally, despite the second point noted above, the ACCC considers that the analysis it has undertaken on the state of competition is sufficient to determine the competitive dynamics in the market and the likely reasons for Telstra's market position. The ACCC is satisfied that even if Telstra earns an economic profit, the findings would suggest that it is likely to be derived mostly from its competitive advantage in network quality rather than geographic coverage. As discussed earlier, the ACCC also considers that there is evidence of Optus, and to a lesser extent VHA, making investments to compete with Telstra on network quality including in regional areas. There is also evidence that Telstra is responding to these competitive pressures. The ongoing competitive dynamics between the MNOs means that the existence of economic profit at any given point in time does not necessarily indicate a lack of competition. Rather, the existence of economic profits encourages other MNOs to keep competing in order to catch up and Telstra to keep competing in order to maintain its competitive advantage as well as encouraging new entry into the market, which is arguably what has occurred with TPG.

### 5.2.6. Summary of findings on the state of competition

After considering all the submissions and information provided during the inquiry, particularly from MNOs, the ACCC is of the view that:

- Telstra is the clear market leader in the national mobile services retail market with a higher overall market share, and significantly higher market share of regional consumers.
- Telstra generally charges higher prices for its services compared to other MNOs, although the differences in prices have reduced over the past five years, particularly in relation to post-paid services.
- The MNOs compete over a number of factors in the mobile services market, including price and non-price factors.
- Geographic coverage is one of the factors. However, other than consumers who require or value coverage in the Telstra-only areas, there is no evidence that Telstra's exclusive coverage in the Telstra-only areas is the only or most important reason consumers chose Telstra or that equal geographic coverage is essential for other MNOs to effectively compete with Telstra.
- Instead, there is evidence that consumers value a range of factors. In particular, network quality, in terms of depth of coverage, significantly drives market shares and is likely to be a key reason for consumers preferring Telstra's services in regional areas.
- There is also evidence that Telstra and Optus are actively competing in respect of network quality in many regional areas and this trend is likely to continue, leading to incremental improvements in the quality of mobile networks in regional areas.
- There is also some evidence that VHA is also investing in network quality including regional areas in order to compete more effectively in areas where it has coverage.
- The competitive dynamics in the mobile services market show that equivalence of geographic coverage is not essential for the MNOs to effectively compete with each other. The pending entry of TPG as a fourth MNO supports this view.
- Different price points in the mobile services market therefore reflect a market with similar but differentiated products and are a result of competition between MNOs.
- Consumers who value geographic coverage in the Telstra-only areas have limited choice of provider, but are able to benefit to some extent from competition in the wider mobile services market through uniform national pricing. They also have access to Boost services as a cheaper alternative to Telstra.
- There remain quality differences between the networks in metropolitan areas and regional areas. Quality in regional networks can only be improved via sustained investments.

The next section examines whether, and the extent to which, declaration of a mobile roaming service would promote competition in the relevant markets given the current state of competition.

## 6. Would declaration promote competition in the relevant markets?

### Key points

- The ACCC finds that declaration would not significantly promote competition in the wholesale roaming market.
- In the retail mobile services market, declaration would, in the short term, likely improve the ability of Optus and VHA to compete with Telstra for some consumers, but Telstra's position as market leader reflects a number of factors unrelated to geographic coverage.
- The impact of declaration on price levels and pricing structure is unclear. While there is the potential for Telstra's prices to be reduced, the extent of any such reduction is unlikely to be significant. On the other hand, the prices charged by Optus and VHA would likely increase due to the need to pay access charges to acquire the declared roaming service in high-cost parts of the country. Declaration may also give rise to the risk of the MNOs moving away from uniform national pricing, which is likely to result in higher prices for the use of services in regional and remote areas.
- In the longer term, removing geographic coverage as a point of differentiation would be detrimental as it would distort competitive dynamics currently in the market and remove incentives for the MNOs to compete on network quality and coverage or differentiate their services.
- Declaration is unlikely to facilitate new MNO entry as any new entrant is likely to require roaming in more densely populated areas where all three MNOs have coverage. The ACCC expects competition between the three MNOs in these areas should ensure a new entrant can acquire roaming, as needed, on a commercial basis.
- Overall, the ACCC considers that declaration would not significantly promote competition in the retail mobile services market.

As part of the assessment of whether declaration would promote the LTIE, the ACCC has had regard to the extent to which it would promote competition in the relevant markets.<sup>126</sup> In doing so, the ACCC considers the likely future state of competition in the relevant markets with and without declaration. The future without declaration may be informed by taking into account the current state of competition.<sup>127</sup>

As the ACCC must not only consider whether declaration would promote competition but also the extent to which this would be likely to occur, the ACCC ought to give greater weight to a situation where the likely effect of declaration on competition is substantial than where the effect is minor.<sup>128</sup>

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<sup>126</sup> CCA, section 152AB.

<sup>127</sup> ACCC Declaration Guideline, p. 36.

<sup>128</sup> *ibid*, pp. 37–38.

## 6.1. Would declaration promote competition in the wholesale mobile roaming market?

### 6.1.1. The ACCC finds that declaration would not significantly promote competition in the wholesale mobile roaming market

The ACCC's preliminary view was that declaration would not significantly promote competition in the wholesale roaming services market overall. However, the ACCC considered the effect of declaration on the provision of wholesale mobile roaming services depends on where these services are offered.

For the Telstra-only areas, the ACCC considered that declaration would likely remove incentives for Optus to invest to extend coverage into the declared area which could result in the area in which competitive roaming services could be negotiated being reduced, thereby reducing competition in the wholesale market in the future.<sup>129</sup> However, the ACCC also found that Optus is unlikely to significantly expand its geographic coverage into Telstra-only areas. Therefore, we found that declaration that was limited to the Telstra-only areas would not materially affect competition in the wholesale roaming market.

For combined Telstra-only and Telstra-Optus areas, the ACCC found that declaration may promote competition in the wholesale roaming market to some degree as both Telstra and Optus may compete to provide roaming services to access seekers, given that at least one MNO would be required to provide the regulated service. However, the ACCC did not consider the effect on competition would be significant as the ACCC found that competition for wholesale mobile roaming service is generally effective.

More broadly, the ACCC considered that declaration of a roaming service would not mean that MNOs would be better able to supply wholesale services than they currently are, as declaration would not increase the coverage area of their networks. Therefore the competitive impact of declaration on this market is unlikely to be significant.<sup>130</sup>

Few parties commented on the ACCC's preliminary view that declaration is unlikely to promote competition in the wholesale mobile services market. Optus agreed that mandating roaming will not mean that MNOs would be better able to supply wholesale roaming services than they currently do and thus the competitive impact of declaration in this market is not likely to be significant.<sup>131</sup>

However, VHA submitted that declaration of roaming in Telstra-only areas would promote competition in the wholesale mobile services market by providing VHA the ability to supply mobile service in circumstances where it could not otherwise do so. Further, VHA submitted that declaration in the combined Telstra-only and Telstra-Optus areas would ensure that wholesale supply of roaming occurs on reasonable terms which would eventually lead to an intensification of competition.<sup>132</sup>

The ACCC has considered these submissions in detail, and examined other evidence obtained during the inquiry. We are not persuaded that declaration would significantly promote competition in the wholesale mobile roaming services market.

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<sup>129</sup> See Section 8 for discussion of the impact of declaration on Optus' investment incentives.

<sup>130</sup> ACCC, Draft decision, p. 53.

<sup>131</sup> Optus, Submission to draft decision, p. 24.

<sup>132</sup> VHA, Submission to draft decision, Attachment C, pp. 4–5.

As noted in Section 5, the ACCC considers that competition for wholesale mobile roaming services in Telstra-only areas is not effective. However, declaration in Telstra-only areas would not promote competition in the wholesale mobile roaming services market, as declaration will not increase the geographic coverage of rival operators' networks or increase the competitive rivalry between the suppliers of wholesale roaming services. Telstra would remain the only operator able to provide wholesale mobile roaming services in these areas and declaration would simply require Telstra to provide wholesale roaming services.

In the Telstra-Optus areas, the ACCC considers there should continue to be commercial incentives to provide mobile roaming services and declaration is unlikely to significantly affect competition for wholesale mobile roaming services. While declaration may promote better outcomes in the market in terms of pricing and mandated supply of roaming services, declaration would not of itself, promote rivalry between MNOs providing a mobile roaming service. Further, the key impact of this would once again be in the downstream retail market. As such, the ACCC finds that declaration would not have any material impact on the promotion of competition in the wholesale mobile roaming services market.

The ACCC also does not consider that declaration in either the Telstra-only areas or the combined Telstra-only and Telstra-Optus areas would significantly affect the provision of roaming services in the three-MNO areas.

## 6.2. Would declaration promote competition in the retail market for mobile services?

### 6.2.1. The preliminary view was that declaration would not promote competition to a significant extent

The ACCC's preliminary view was that:

- Declaration of a mobile roaming service would allow Optus and VHA (and potentially TPG) to increase their geographic coverage, and would remove one of Telstra's competitive advantages. This would improve their ability to compete with Telstra for consumers who value wide geographic coverage, in both metropolitan and regional areas.
- However, when considered in the context of the national market, the overall impact that this would have on competition is not likely to be significant, as Telstra is likely to maintain its advantage in competing on other factors, such as network quality.
- The ACCC also was of the preliminary view that declaration is unlikely to reduce retail prices significantly. It may lead to some reduction in prices for those who value geographic coverage but do not have a choice of provider other than Telstra. However, it could also lead to higher prices for consumers who do not value wide geographic coverage.
- Further, the ACCC considered there is uncertainty as to the retail pricing structure after declaration. In particular, there may be a risk that declaration gives rise to the MNOs moving away from uniform national pricing, resulting in higher prices for use of mobile services in regional areas where a roaming service is declared.
- At this point in time, declaration of a roaming service in regional areas would not facilitate entry for a further MNO.

- Overall, declaration is therefore unlikely to significantly promote competition in the national mobile services market.<sup>133</sup>

### 6.2.2. Submissions are divided on whether declaration would promote competition

Telstra and Optus agreed with the ACCC's preliminary view that declaration would not significantly promote competition in the retail mobile services market.

Telstra submitted that declaration would remove geographic coverage as a factor over which MNOs currently differentiate their services. Telstra argued that the impact of removing coverage-based competition cannot be isolated from the mix of competitive factors that it believes has delivered one of the world's most competitive mobile markets. Telstra also argued that declaration may not lead to Telstra lowering its prices to any significant extent – it may in fact lead to higher prices for consumers either across the board or due to MNOs moving away from uniform national pricing. Telstra also agreed that declaration is not necessary to facilitate the entry of new MNOs.<sup>134</sup>

Optus submitted that there is limited evidence that improving the ability for MNOs to provide mobile services in regional areas, through declaration, would significantly improve the national market for mobile services. Optus noted that access seekers would need to increase prices to reflect the cost of acquiring roaming and this could mean that prices may not be materially different from existing levels charged by Telstra. Optus also noted that consumers who do not value coverage would be forced to pay for national coverage they would otherwise not purchase. Optus also agreed that declaration is unlikely to facilitate new entry or reduce barriers to entry for new entrants.<sup>135</sup>

VHA disagreed with the ACCC preliminary findings and submitted that declaration would promote competition and lead to significant price reductions and welfare gains for consumers. VHA submitted that:

- The ACCC failed to consider likely wholesale prices for a declared roaming service and the level of wholesale pricing is relevant to the likely benefits from declaration.
- Neither VHA nor Optus would have any practical ability to raise prices after declaration.
- Declaration would lead to churn of regional customers from Telstra to Optus and VHA, delivering increases in revenues and reductions in costs. There is therefore no need for Optus or VHA to raise prices.

To support its submission, VHA reiterated the findings from a report prepared by CIE submitted by VHA in response to the discussion paper, which sought to estimate the significant price premium that Telstra charges.<sup>136</sup> VHA also provided a report prepared by Frontier Economics (the Frontier Report) which examined the impact of declaration of a mobile roaming service in Australia on retail prices.<sup>137</sup> Frontier Economics used an economic model, a differentiated Bertrand model, to estimate the consumer benefit. The Frontier

<sup>133</sup> ACCC, Draft decision, pp. 50–59.

<sup>134</sup> Telstra, Submission to draft decision, pp. 26–29.

<sup>135</sup> Optus, Submission to draft decision, p. 23.

<sup>136</sup> VHA, Submission to draft decision, Attachment B, p. 6; See also CIE, *Telstra's price premium: the premium paid by consumers for fixed and mobile services*, November 2016 and CIE, *Response to comments by JJ Pincus on CIE hedonic regressions*, 23 February 2017.

<sup>137</sup> Frontier Economics, *The consumer impact from domestic roaming*, 15 June 2017. (Frontier Report); VHA, Submission to draft decision, Attachment B, p. 6.

Report examined outcomes under both uniform national pricing and de-averaged prices and concluded that as a result of declaration:

- Under the scenario of de-averaged prices, overall prices would fall by 5.6 per cent, which would generate at least \$3.9 billion in consumer welfare gains over a 10 year period.
- If uniform national pricing is maintained, overall prices would fall by 3.9 per cent which would generate at least \$2.9 billion in consumer welfare gains over a 10 year period.<sup>138</sup>

VHA claimed that the Frontier Report provides evidence that declaration would result in significant consumer benefit. VHA also argued that this is supported by other market reports by analysts such as Goldman Sachs and Macquarie Research on the impact of declaration on Telstra's EBITDA.<sup>139</sup>

VHA also disagreed with the ACCC's preliminary view that declaration is unlikely to reduce barriers to entry and facilitate new entry. VHA argued that it is a new entrant to the regional market and in that sense it is not different to TPG who is a new entrant to the metropolitan market.<sup>140</sup>

Pivotel similarly submitted that declaration would not give rise to a risk of price increases. Pivotel noted that, given the pending entry of TPG who will be competing primarily for metropolitan consumers, Optus and VHA would be constrained in their ability to increase prices after declaration. Pivotel also considered that it is illogical that some consumers would be worse off if MNOs start to offer disaggregated pricing models. Pivotel did not believe that VHA could penalise consumers who value coverage by charging higher prices when pricing in metropolitan markets and would be constrained by TPG.<sup>141</sup>

Other submissions expressed concerns that declaration of a mobile roaming service may increase prices for mobile services, or put uniform national pricing at risk.<sup>142</sup>

The sections below discuss the ACCC's findings on whether, and the extent to which, declaration would promote competition in the retail mobile services market.

### **6.2.3. VHA did not provide convincing evidence to support its view on the impact of declaration**

#### **Comments by Telstra and Optus on Frontier Report**

VHA argues that the Frontier Report provides evidence that declaration would result in significant welfare benefits for consumers. Both Telstra and Optus provided supplementary submissions responding to the Frontier Report.

Optus provided a report prepared by Analysys Mason which reviews the Frontier Report, specifically the methodology used in, and conclusions of, the report.<sup>143</sup> In summary, Analysys Mason concluded that:

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<sup>138</sup> Frontier Report, p. 34.

<sup>139</sup> VHA, Submission to draft decision, Attachment B, p. 6.

<sup>140</sup> VHA, Submission to draft decision, p. 6.

<sup>141</sup> Pivotel, Submission to draft decision, p. 7.

<sup>142</sup> See for example, Broken Hill City Council, Submission to draft decision, 16 May 2017; Burke Shire Council, Submission to draft decision, 1 June 2017; Murrumbidgee Council, Submission to draft decision, 23 May 2017; Northern Territory Government, Submission to draft decision, May 2017; TasICT, Submission to draft decision, 22 June 2017.

<sup>143</sup> Analysys Mason, *Review of a report by Frontier Economics estimating the consumer benefits from declaring a domestic mobile roaming service in Australia*, 24 July 2017. The ACCC notes that Optus and Analysys Mason did not have access to the Frontier Model which is provided by VHA on a confidential basis.

- Frontier Economics' model is a complicated way of taking an assumed rent (\$616 million) and passing it through to a consumer gain (\$685 million). It assumes that declaration would remove Telstra's ability to extract the assumed economic rent, but in doing so, does not add any independence or robustness to the initial assumption of the amount of rent.<sup>144</sup>
- There is no evidence to support the assumed economic rent of \$616 million. While Frontier Economics acknowledges that Telstra has other non-coverage related advantages, it treats the average revenue per user (ARPU) premium as coverage-related and does not account for any non-coverage related ARPU premium.<sup>145</sup>
- The ARPU values used by Frontier Economics are inconsistent and incorrect and the actual ARPU differential is not as constant or as high as claimed by Frontier Economics.<sup>146</sup>
- Market evidence over the period 2011–2016 contradicts the connection between geographic coverage and market share:
  - Optus and VHA's regional market shares show that they are not 'urban only' and that VHA's lower market share is not due to lack of coverage.
  - VHA's under performance in urban areas compared to Optus shows that coverage is not the main reason explaining VHA's lower market share.
  - There is no correlation between the evolution of geographical coverage and retail market share over the period 2011–2016.
  - The port-in information provided by VHA (that is, the proportion of VHA's new customers who switched from Telstra) confirms that not all Telstra customers value Telstra's level of geographic coverage.<sup>147</sup>
- Even if there is 'excess profit', the model used by Frontier Economics is the wrong one. A Stackelberg model would better account for differentiated coverage and investment effects.<sup>148</sup>
- If there was the claimed 'profit' to be gained from extending geographic coverage, MNOs would undertake their own investments. The wholesale payment to Telstra for roaming services of \$108 million that results under the Frontier Economics' model would be sufficient to cover the costs of more than 600 additional mobile sites over one million square kilometres.<sup>149</sup>

Telstra also expressed the following concerns regarding the Frontier Report, some of which are similar to those noted in the Analysys Mason report:

- The Frontier Report ignores the welfare loss that declaration would cause by creating disincentives for investments.
- Frontier Economics has made over simplistic and erroneous assumptions about mobile services and mobile markets, such as assuming that geographic coverage is the only point of competitive differentiation. The Frontier Model also ignores coverage differences between Optus and VHA, the fact that both MNOs are competing suppliers at the

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<sup>144</sup> *ibid.*, p. 7.

<sup>145</sup> *ibid.*, pp. 8–12.

<sup>146</sup> *ibid.*, pp. 13–14.

<sup>147</sup> *ibid.*, pp. 17–20.

<sup>148</sup> *ibid.*, p. 22.

<sup>149</sup> *ibid.*, p. 24.

wholesale level, Boost's low cost product with 'national coverage' and the pending entry of TPG.

- Frontier Economics' differentiated Bertrand model has not been appropriately calibrated, to provide for the testing of multiple factors of differentiation.
- There is no evidence that the Frontier Model results in equilibrium. Equilibrium in a differentiated Bertrand model captures the optimal price for each firm, with each firm's price dependent on the price set by competing firms. If the model is not in an equilibrium state, the estimated price changes and welfare benefits are not reliable.
- Frontier Economics' calculation of the domestic roaming charge of \$5 has no reference to the cost of supplying a mobile network in regional and rural Australia and relies on an unsubstantiated estimate of Telstra's economic rent.
- Frontier Economics' estimation of Telstra's ARPU is incorrect and the ARPUs for the MNOs are not calculated on a consistent basis.
- There are inherent difficulties in analysing the consumer welfare impact of declaration on the basis of share prices.
- VHA has not made the Frontier Model available so Telstra has not been able to verify any of the inputs of the calculations.<sup>150</sup>

Frontier Economics provided a further response to the comments received from both Telstra and Analysys Mason. It submitted that contrary to those comments, the Frontier model captures the key features and facts of the Australian mobiles market. Frontier Economics considered that the evidence used in the ACCC's draft decision supports its hypothesis that geographic coverage is an important driver of choice for a significant number of subscribers, particularly in regional areas. It states that no other evidence has been provided to identify other factors that could explain Telstra's significant market share advantage in regional areas versus urban areas.<sup>151</sup> It claims that neither Telstra nor Analysys Mason understood aspects of its report.<sup>152</sup>

Frontier Economics argued that it did not assume that geographic coverage is the only factor explaining Telstra's higher market shares. Rather, it recognised that Telstra's market share advantage in regional areas may be the result of other non-coverage advantages. As such, it assumed that Telstra's regional market share would converge by around 60 per cent to its market share in urban areas, rather than completely. Even if market shares converged by less than 60 per cent, it argued that its sensitivity analysis showed that declaration would still lead to substantial consumer welfare gains.<sup>153</sup>

Frontier Economics also responded to Telstra's and Analysys Mason's comments on other aspects of the Frontier Report:

- The Frontier Report focuses on the most important features of competition, and does not include other features of the market which do not explain why there is a disparity between the market shares of Telstra in urban areas compared to its market share in regional areas in circumstances where Telstra supplies the same service.<sup>154</sup>
- The model used by Frontier Economics reflects the current situation in the Australian mobile market as it uses real world data that captures the actual market outcomes in

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<sup>150</sup> Telstra, *Letter on Domestic Mobile Roaming Declaration Inquiry 2016*, 6 July 2017, pp. 3–4.

<sup>151</sup> Frontier Economics, *Response to Optus and Telstra Critiques*, 21 September 2017, pp. 2–5, 6–7.

<sup>152</sup> *ibid.*, p. 8.

<sup>153</sup> *ibid.*, pp. 8–9.

<sup>154</sup> *ibid.*, pp. 19–20.

Australia to derive demand parameters which then determine the impact of declaration.<sup>155</sup> The results reflect equilibrium in the market as the model assumes that all operators will set prices to maximise their profits.<sup>156</sup>

- While estimates based on Telstra's share price changes may not be entirely reliable as an indicator of consumer welfare gain from declaration, the changes are an indicator that the stock market views Telstra's coverage advantages as an important factor and that declaration will have a significant impact on Telstra's expected profits.<sup>157</sup>
- There are challenges in estimating consistent and comparable ARPUs, but changing the differences between the ARPUs of the MNOs would have no material impact on the results.<sup>158</sup>
- The estimated economic rent referred to in the Frontier Report is not a direct input to the modelling. Rather it was used to inform the estimation of the domestic roaming charge. Frontier Economics states that it could have estimated domestic roaming charge based on an estimate of Telstra's costs, but that information is confidential to Telstra.<sup>159</sup> Frontier Economics also did not expect economic rent due to coverage to be the same as the expected consumer welfare.<sup>160</sup>
- Frontier Economics was not instructed to explicitly consider the impact of declaration on investment incentives, but considered that an appropriately set regulated charge would provide incentives to Telstra and other MNOs to undertake efficient investments.<sup>161</sup>
- The large welfare gain estimated does not imply that Optus and VHA would have incentives to invest themselves without roaming. This is because the overall welfare gain is materially higher than each operator's benefit. Further, the estimated cost of matching Telstra's coverage is likely to be much higher than that indicated by Analysys Mason.<sup>162</sup>
- The use of a differentiated Bertrand model is the most appropriate model for modelling the mobile services market in Australia and Analysys Mason's suggestion of a Stackelberg model would not work in practice.<sup>163</sup>

## **RBB Economics' review of Frontier Report and model**

The ACCC engaged an independent consultant, RBB Economics, to assist its assessment of VHA's submission regarding the consumer benefit that would be derived from declaration and the modelling provided by Frontier Economics (the Frontier Model). RBB Economics provided the ACCC with a report on its review, which the ACCC has published with this final report.<sup>164</sup>

RBB Economics concluded that the Frontier Model is unlikely to produce reliable results of the impact of mandated domestic roaming for three reasons.

First, RBB Economics noted that the results of the Frontier Model rest on a number of assumptions relating to the extent to which geographic coverage affects consumer demand.

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<sup>155</sup> *ibid*, pp. 20–21.

<sup>156</sup> *ibid*, p. 21.

<sup>157</sup> *ibid*, p. 22.

<sup>158</sup> *ibid*, p. 9.

<sup>159</sup> *ibid*, pp. 10, 13–14, 21–22.

<sup>160</sup> *ibid*, p. 12.

<sup>161</sup> *ibid*, pp. 10–11.

<sup>162</sup> *ibid*, pp. 17–18.

<sup>163</sup> *ibid*, pp. 15–17.

<sup>164</sup> RBB Economics, *Review of report and model by Frontier Economics*, 12 September 2017.

In particular, Frontier Economics assumes that there is limited substitution between products with 'urban coverage' and products with 'national coverage', and that Telstra is the only provider of products with 'national coverage'.

This is a key determinant of the benefits that Frontier Economics estimated would flow to consumers following declaration. As such, RBB Economics argued that this assumption needs to be supported by strong evidence. While Frontier Economics did refer to market share data, survey results and marketing claims, this evidence was not particularly strong and would not justify a conclusion that geographic coverage is central to competition in the mobile services market. In particular, RBB Economics noted that Frontier Economics assumed that Telstra would lose a specific share of its market to Optus and VHA after declaration and that this largely drives the results of the model.<sup>165</sup>

RBB Economics also noted that the only way in which the Frontier Model accounts for differences on dimensions other than geographic coverage is to maintain a market share gap between Telstra's urban and regional market shares after declaration. RBB Economics considered this to be a blunt way of capturing all dimensions of competition that are not included in the model.<sup>166</sup>

Second, RBB Economics noted that Frontier Economics assumed that the reduction in Telstra's market power following declaration is the main driver of its modelling results. This assumption appeared to be based on the fact that Telstra has higher ARPUs than Optus or VHA and that Telstra's share price increased following the release of the ACCC's draft decision. RBB Economics did not consider that these factors, on their own, demonstrate that Telstra has market power. While RBB Economics was not instructed to assess whether Telstra has market power, it did not accept Frontier Economics' contention that for prices to be competitive, all MNOs must have similar levels of geographic coverage.

RBB Economics considered that as the MNOs compete across a number of dimensions, one firm may be able to charge higher prices than its competitors who do not supply products with the same characteristics or which are perceived as being of higher quality and that such an outcome is a result of competition. In such a case, RBB Economics considered that any price reductions 'predicted' by the model could be illusory if the market is already effectively competitive.<sup>167</sup>

Finally, RBB Economics took issue with the way Frontier Economics has either estimated or applied the real world data it has considered in its model:

- Frontier Economics used geographic coverage as a way to determine the extent of substitutability between operators, but did not provide sufficient evidence to support the importance of geographic coverage.
- Frontier Economics used diversion ratios to estimate demand curves for the products of operators, but none of the data used to estimate the diversion ratios relates to how consumer demand is affected by geographic coverage and what consumer demand would be for Optus' and VHA's products after declaration.
- The Frontier Model assumed a fixed and static view of how competition takes place which does not reflect how competition works in the real world. Importantly, the Frontier Model does not take into account dynamic aspects of competition in telecommunications and the fact that differentiation between products supplied by rival firms is not constant

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<sup>165</sup> *ibid.*, pp. 3, 7–8.

<sup>166</sup> *ibid.*, pp. 8.

<sup>167</sup> *Ibid.*, pp. 3–4, 8–10.

(e.g. the impact of TPG's and Optus' pending investments in the mobile market is not reflected in the model).<sup>168</sup>

### **The ACCC considers that the Frontier Model does not produce reliable results**

The ACCC has considered the Frontier Report and Frontier Economics' response to comments submitted by Telstra and Analysys Mason as well as the report prepared by RBB Economics. On the basis of this consideration, the ACCC considers the results from the Frontier Model cannot be relied upon to assess the welfare impacts of declaration of a mobile roaming service. The key reasons for this are as follows.

First, the ACCC accepts the views that the Frontier Model places too much weight on the assumption that geographic coverage drives competition. This assumption leads to Frontier Economics' conclusion that Telstra's higher market share in regional areas is mainly a result of its superior geographic coverage. While Frontier Economics acknowledged that there may be other factors that contributed to Telstra's market share, the Frontier Model assumed that geographic coverage is the main factor, but does not provide independent evidence to support the assumption.

Frontier Economics has referred to evidence relied on by the ACCC in its draft decision, which showed that geographic coverage is one factor that drives consumer choice.<sup>169</sup> However, it suggested that this is the most important reason for Telstra's market advantage in regional areas and discounts the significance of other factors, such as network quality. As the ACCC has found that network quality is a key driver of competition in the mobile services market, we consider that this approach is flawed. The significance of geographic coverage as a central assumption in the model means that declaration of a mobile roaming service, which removes differences in geographic coverage, would have a bigger impact on market share and prices than could be supported by evidence.

As discussed in Section 5 above, the ACCC has found that Telstra's higher market share, and its price premium, are not solely attributed to its geographic coverage. This view is supported by Analysys Mason's comments on the lack of correlation between geographic coverage and market shares, which are consistent with the ACCC's findings.

The ACCC's finding that network quality (coverage depth) can explain Telstra's higher market shares, including those in regional areas, is based on analysis of underlying infrastructure of the MNOs and the relationship with market shares in various areas. Interestingly, Frontier Economics also recognised that there are significant disparities in the site numbers of Telstra's, compared to Optus' and VHA's. It stated that although operators may have different site densities in areas where they have coverage, the significant difference in total site numbers nonetheless indicate that VHA and Optus would require a materially higher number of new sites to match Telstra's geographic coverage than the 600 sites suggested in Analysys Mason's report.<sup>170</sup>

The ACCC considers that Frontier Economics' view appears to be based on the assumption that site densities in areas where at least two MNOs have coverage must be largely comparable such that the majority of the site differences reflect Telstra's additional sites in the Telstra-only areas. As the ACCC showed in Section 5 above, there are significant differences in Telstra's site densities compared to the others, and this could explain the differences in Telstra's market shares across regions.

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<sup>168</sup> *ibid.*, pp. 11–14.

<sup>169</sup> Frontier Report, pp. 11–15.

<sup>170</sup> Frontier Economics, *Response to Optus and Telstra critiques*, 21 September 2017, p. 18.

Second, the Frontier Model effectively measures what the welfare effects of declaration would be if it led to Telstra losing an assumed amount of market share to its rivals. In that sense, the model seeks to analyse the consequences of an assumed change resulting from declaration, but it does not seek to model what market share change would actually follow declaration. The sensitivity analysis that RBB Economics conducted in relation to the market share transfer assumption shows it has a significant impact on the estimated prices and welfare benefits in the model. As discussed earlier in this report, there are many possible reasons why Telstra has a market share advantage over its rivals. This is recognised by Frontier Economics, who note that “coverage ... is not the only consideration for some consumers and ... Telstra may differentiate its products in other ways as well”.<sup>171</sup> It is not clear what, if any, change in the relative market share of the MNOs would result from declaration of a domestic mobile roaming service. Frontier Economics assumes that market shares in regional areas will converge by 60 per cent towards market shares that presently exist in urban areas. However, the ACCC considers that there is no particular evidence cited in support of this assumption. Models that are sensitive to assumptions must have a strong evidentiary basis if they are to be relied upon.

Third, the Frontier Model assumes that Telstra presently has market power in the provision of retail mobile services such that its current price premium partly reflects the exercise of this power. This is a crucial assumption, because it is the removal of at least some of this market power that is assumed to follow from declaration of a domestic mobile service.

As discussed in Section 5 above, it is not clear that Telstra’s higher prices and market share are the result of market power as a result of its greater geographic coverage. While the price premium charged by Telstra may reflect consumers’ willingness to pay, we have also found that Telstra is likely to be subject to at least some competitive constraint in setting prices. We accept RBB Economics’ observation that the different price points evident in the market could be the result of competition, rather than Telstra’s prices being above competitive levels.

Fourth, the ACCC agrees with RBB Economics’ view that the Frontier Model assumed a fixed and static view of competition and did not take into account the impact of declaration on dynamic competition and investments. The ACCC notes similar comment by Telstra that the Frontier Report ignores welfare losses resulting from declaration due to the impact on investment incentives.

In addition to these factors, the ACCC also notes Analysys Mason’s and Telstra’s comments on the other inputs used in the Frontier Model, such as ARPUs, margins and domestic roaming charge. The ACCC has provided RBB Economics with the MNOs’ ARPUs and EBITDA margins for the purpose of sensitivity testing.<sup>172</sup> These tests show that changing the inputs will impact the outcomes to varying degrees, suggesting that appropriateness of the inputs would otherwise impact the accuracy of the model’s results. However, given RBB Economics’ view that the range of values produced by the sensitivity analysis may still not be reliable due to the key assumption that underpins the construct of the model,<sup>173</sup> the ACCC considers that the appropriateness of the inputs used is less important in this case.

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<sup>171</sup> Frontier Report, p. 39.

<sup>172</sup> The ARPU figures that are used in the RBB Economics’ sensitivity testing are information provided by the MNOs under the Division 12 Record Keeping Rules for 2015–16. These figures differ from the figures used in Section 5 of this report, as the ACCC had not received the information for 2016–17 at the time of providing the ARPU information to RBB Economics. The EBITDA margins used are provided by the MNOs in response to ACCC information request in this inquiry as well as from the MNOs’ company reports.

<sup>173</sup> RBB Economics, *Review of report and model by Frontier Economics*, 12 September 2017, p. 15.

The ACCC finally notes other issues that Analysys Mason and Telstra raised in relation to various aspects of the Frontier Report and Frontier Economics' responses to these comments. However, given the ACCC's findings on the basis of RBB Economics' report, the ACCC does not consider it necessary to investigate these issues further. The ACCC is not satisfied that the Frontier Report provides convincing evidence on the likely outcome of declaration to support VHA's contention that declaration would promote competition and result in significant welfare benefits.

### **Other reports submitted by VHA do not provide convincing evidence for the purposes of assessing whether declaration would promote competition**

VHA also submitted that reports by market analysts such as Goldman Sachs and Macquarie Bank also provide evidence that declaration would lead to significant consumer benefits. VHA provided reports showing that:

- Goldman Sachs estimated that Telstra's EBITDA is likely to reduce by \$546 million per annum as a result of declaration.
- Macquarie Research estimated that Telstra EBITDA is likely to reduce by \$590 million per annum as a result of declaration.<sup>174</sup>

The ACCC does not consider that these reports can be used to show the likely effect of declaration for the purpose of assessing whether declaration would promote competition. Market analyst reports are used to inform market investors about the possible movement in share prices and are highly speculative. This is reflected in comments in the reports themselves. For instance, the report by Macquarie Research notes that **[c-i-c]**

Like the Frontier Report, the Macquarie report relied on assumptions regarding the importance of Telstra's geographic coverage as a source of its current market position but provided no evidence to support this assumption. Further, the reports focused on the impact on Telstra's EBITDA rather than overall market competition and price levels. This is relevant because any regulatory intervention that favoured one market participant over another would result in a reduction in the market value of the disfavoured firm, irrespective of whether such an intervention was in the LTIE or not.

As such, the ACCC does not consider that market analysts' reports provide convincing evidence of the likely impact of declaration on the retail services market.

For completeness, the ACCC also notes that the CIE report provided by VHA in response to the discussion paper does not provide evidence on the likely outcome of declaration. This is because the report only estimates the likely price premium that Telstra charges but does not attempt to determine the source of this price premium, as acknowledged by CIE itself and VHA.<sup>175</sup> As shown in Section 5, the ACCC has undertaken its own analysis on Telstra's price premium in a range of plans. While informative, the ACCC does not consider that the CIE report provides a basis for the ACCC to change its findings in the final report.

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<sup>174</sup> VHA, Submission to draft decision, Attachment B, p. 6.

<sup>175</sup> CIE, *Response to comments by JJ Pincus on CIE hedonic regressions*, 23 February 2017, p. 2; VHA, Supplementary submission to discussion paper, Part A, p. 17.

#### **6.2.4. Declaration would not promote competition to a significant extent**

##### **Declaration would improve Optus' and VHA's ability to compete for consumers that require or value large geographic coverage, regardless of where they live**

In reaching its preliminary view, the ACCC separately considered how declaration would impact competition for regional consumers and metropolitan consumers.<sup>176</sup> Mr Feasey noted in response to the ACCC's preliminary view that the impact of declaration on consumers does not depend on where they live, but rather whether they value geographic coverage.<sup>177</sup> To clarify, in reaching its preliminary view, the ACCC did consider, within the separate groups of regional and metropolitan consumers, the different impact declaration may have on those that value geographic coverage and those that do not. In this sense, the ACCC's approach is consistent with Mr Feasey's view that the relevant question is not how declaration would affect regional consumers and metropolitan consumers based on where they reside *per se*, but rather, how it would impact consumers who require or value large geographic coverage.

Declaration of a mobile roaming service would functionally enable MNOs to provide coverage in areas where they do not currently have coverage. Potentially, this would lead to each MNO having the same geographic coverage as their competitors. This is likely to improve the ability of Optus and VHA to compete for consumers who require or value geographic coverage in the Telstra-only areas, whether they live in regional or metropolitan areas. As these consumers can currently only choose either Telstra or Boost, the immediate impact of declaration on these consumers is to increase their choice of provider and potentially the range of mobile services from which they can choose.

On the other hand, the impact of declaration on the prices that these consumers pay for their mobile services would depend on the overall impact of declaration on retail prices and pricing structure. This will be discussed later in the section.

##### **Declaration would not eliminate Telstra's other competitive advantages**

Declaration would not eliminate Telstra's other competitive advantages, including its network quality and coverage depth in areas where other MNOs also have geographic coverage. Other factors such as greater retail store presence and any brand or reputational advantages it has over its rivals, would also be unaffected.

If declaration is restricted to the Telstra-only areas, then no other MNO could access Telstra's network in the Telstra-Optus areas and Telstra's advantage in network quality outside the Telstra-only areas would be unaffected by declaration.<sup>178</sup> Declaration would therefore not improve Optus' or VHA's ability to compete with Telstra for those consumers who currently choose Telstra because of its network quality. Similarly, declaration would not affect Optus' and VHA's ability to compete with Telstra for consumers that currently choose Telstra for any other reason (except geographic coverage).

If declaration is extended to cover the Telstra-Optus areas, the ACCC considers that it may, to some extent, improve VHA's ability to compete for consumers who choose Telstra because of its network quality in the Telstra-Optus areas if it chooses to acquire a declared roaming service from Telstra in those areas. **[c-i-c]** Optus, on the other hand, is unlikely to

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<sup>176</sup> ACCC, Draft decision, pp. 52–53.

<sup>177</sup> VHA, Submission to draft decision, Attachment F, *Richard Feasey's comments on aspects of the ACCC's Domestic Roaming Declaration Enquiry Draft Decision*, p. 5.

<sup>178</sup> This is assuming that Telstra does not otherwise supply commercial roaming in the Telstra-Optus areas.

be able to acquire a declared roaming service in the Telstra-Optus area given it has coverage in those areas and its ability to compete for these consumers will not be improved.

However, declaration would not affect Optus' and VHA's ability to compete for any other consumers, such as consumers who only care about features of the networks in areas where all three MNOs have coverage.

### **Declaration may not lead to better retail pricing outcomes for consumers**

The ACCC examined how declaration, through its impact on the MNOs' ability to compete with each other, would be likely to translate into market outcomes in the short term, and the implications for different groups of consumers. Consistent with its preliminary view, the ACCC considers that there are different ways in which the MNOs can respond to declaration and the effect on retail prices and pricing structure is uncertain.

#### ***Uniform national pricing***

As discussed above, declaration can improve Optus' and VHA's ability to compete with Telstra for some consumers. If uniform national pricing is maintained after declaration, the impact of declaration on retail prices in the market would depend on how significantly these consumers' preferences have so far contributed to market outcomes.

In Section 5, the ACCC found that consumers choose their service providers for a variety of reasons, and that geographic coverage is not the only or most important reason when they make their network choice. In particular, it is likely that Telstra's network quality is a key reason that consumers (including those in regional areas) choose Telstra.

On this basis, the ACCC considers that if declaration was restricted to the Telstra-only areas, it would be unlikely to significantly affect Telstra's market position. As noted above, while Telstra may lose some consumers who currently choose it because of geographic coverage in the Telstra-only areas, the overall impact is likely to be small. As Telstra would maintain all of its other competitive advantages, significantly in network quality, the pressure on Telstra to reduce prices may be limited.

There are mixed views on the potential for Optus and VHA to raise their prices after declaration. VHA argued that neither Optus nor VHA has the practical ability to raise prices, and they do not need to do so after declaration because of revenue and market share gains.<sup>179</sup> Pivotal appears to concur with VHA's view, while also noting that the pending entry of TPG will restrain the ability of VHA to raise prices.<sup>180</sup> On the other hand, Telstra and Optus considered that Optus and VHA may raise their prices to cover the additional cost of access to a mobile roaming service in areas where declaration applies.<sup>181</sup> Interestingly and somewhat contradictory to VHA's own submission, Mr Feasey's report (prepared for VHA), also appears to recognise that the nationally averaged prices offered by all three MNOs after declaration would be higher than those currently charged by VHA and Optus since they would need to reflect the need to contribute to the higher fixed costs of roaming in regional areas.<sup>182</sup>

The ACCC considers that the possibility that Optus and VHA would raise their uniform national prices after declaration cannot be discounted. This is because they will face

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<sup>179</sup> VHA, Submission to draft decision, Attachment C, p. 9.

<sup>180</sup> Pivotal, Submission to draft decision, p. 7.

<sup>181</sup> Telstra, Submission to draft decision, pp. 27–28; Optus, Submission to draft decision, p. 24.

<sup>182</sup> VHA, Submission to draft decision, Attachment F, *Richard Feasey's comments on aspects of the ACCC's Domestic Roaming Declaration Enquiry Draft Decision*, p. 25.

additional costs in the form of access charges for roaming in high-cost parts of the country where they don't presently have coverage if they seek access to a declared mobile roaming service. They would also have some improved ability to increase their prices because of the increased coverage they can offer to consumers. The extent to which they will seek to do so, however, is unclear, especially given the pending entry of TPG into the mobile services market.

If declaration is extended to the Telstra-Optus areas, it would become possible for VHA to acquire a declared mobile roaming service from Telstra in those areas.<sup>183</sup> If this occurs, Telstra would lose some of its advantage in network quality to VHA, as VHA would be able to access not just geographic coverage but also the coverage depth of Telstra's network in these areas. Given that the Telstra-Optus areas still only cover about 2.8 per cent of the population, the ACCC is not convinced that the overall impact on Telstra's market position is likely to be significant. However, Telstra is likely to face more pressure to reduce its prices than if declaration is restricted to the Telstra-only areas. But at the same time, VHA in particular, with even higher access charges and ability to attract more consumers, would have the incentive and ability to raise its prices after declaration.

Overall, the ACCC considers it is unclear whether overall average price levels would drop significantly (if at all) after declaration if MNOs maintain uniform national pricing.

The ACCC also expressed preliminary views that it is possible that under uniform national pricing, all three MNOs would choose to only offer services over the broader geographic coverage footprint, which would lead to higher prices for consumers who currently choose VHA or Optus and who do not otherwise require or need the broader coverage.<sup>184</sup>

Mr Feasey argued in response that the ACCC's preliminary view suggests that the MNOs will tacitly collude after declaration and provided reasons why this is unlikely to happen.<sup>185</sup>

The ACCC makes the following observations on his comments.

First, the ACCC considers that the MNOs offering a single coverage product under uniform national pricing can be consistent with profit maximising behaviour in a highly concentrated market even in the absence of any formal or tacit agreement. This might occur, for instance, if an MNO feared its competitors would respond to any attempt to introduce products with restricted coverage at lower prices. It might fear, in these circumstances, that it would gain little from pursuing a strategy of introducing such products. That is, while an MNO that introduces alternative products may gain market share, the gains will be competed away over time as other MNOs compete. Given this, an MNO's best strategy is likely to be 'wait and see', and the consequence of everyone doing so, is the absence of an alternative service offering at a lower price.

Second, the ACCC notes Mr Feasey's comment that for MNOs to only offer a single coverage product under uniform pricing would require two of the MNOs to withdraw existing retail offers and Telstra to withdraw MVNO arrangements, which allow the latter to offer services with restricted coverage. Mr Feasey suggests that this would be unlikely. However, the ACCC considers that, in practice, it entails simply changing the current prices and allowing customers access to the broader coverage, both at the retail and wholesale level.

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<sup>183</sup> As noted earlier, it is unlikely that Optus would be able to acquire a declared mobile roaming service from Telstra in the Telstra-Optus areas given that it has its own coverage.

<sup>184</sup> ACCC, Draft decision, p. 55.

<sup>185</sup> VHA, Submission to draft decision, Attachment F, *Richard Feasey's comments on aspects of the ACCC's Domestic Roaming Declaration Enquiry Draft Decision*, p. 21.

The ACCC considers that the alternative scenario where the MNOs specifically accommodate consumers who do not need broader coverage means that:

- On top of their existing offers, Optus and VHA could each add a new range of retail plans with broader geographic coverage at higher price levels, or charge additional fees for usage in areas with roaming.
- In response, Telstra may need to change its MVNO arrangements in any case to enable the MVNOs to offer services with broader coverage at higher price levels.

The ACCC does not consider that this is necessarily a less complicated process. In any case, the ACCC does not consider that the outcome where consumers who do not value broad geographic coverage will be forced to pay higher prices is a definite outcome of declaration, but rather it is a possible outcome.

However, the ACCC considers that the risk of this outcome is somewhat reduced because of the pending entry of TPG. If, after declaration and the entry of TPG, TPG does not have access to the same geographic footprint as the other three MNOs, then TPG will predominantly compete for consumers that do not value broader geographic coverage. The ability and incentive for TPG to do so restrict the ability of the other three to withhold from offering a restricted coverage product at lower prices. However, competition for predominantly metropolitan consumers after declaration may increase the risk of the MNOs moving away from uniform national pricing. This will be discussed below.

### ***De-averaged pricing***

In reaching its preliminary view, the ACCC noted the possibility that MNOs may move away from uniform national pricing after declaration. This may be done in a number of ways but essentially involves increasing prices for using mobile services in areas where declaration applies. The ACCC's preliminary view was that this outcome would increase the prices paid by consumers that value broader geographic coverage.

It is uncontested that the underlying cost of providing mobile services in regional and remote areas is significantly higher than that in metropolitan areas, on a per user or usage basis. This is because the build cost is higher in regional and remote areas and the demand for services is considerably smaller due to lower population and usage.

Under uniform national pricing, where consumers pay exactly the same prices regardless of where they use their mobile services, it is likely that some level of cross-subsidisation is occurring. This means that consumers who predominantly use services in metropolitan areas are subsidising consumers who predominantly use services in regional and remote areas.

If the MNOs move away from uniform national pricing, this cross-subsidisation would be substantially reduced or eliminated. Depending on the areas in which the MNOs want to charge separate prices, it is most likely to lead to lower prices in low-cost metropolitan areas and higher prices in high-cost regional and remote areas. While the precise impact on different groups of consumers is unclear, the ACCC considers there is a significant risk that individual consumers in regional areas would face a much higher increase in prices than the decrease in prices paid by individual consumers in metropolitan areas. This is because when the amount of cross-subsidy shifts from being borne by large group of metropolitan consumers to being borne by a much smaller group of regional consumers, the impact on individual consumers is likely to be much larger on the smaller group of consumers.

### ***The ACCC is not satisfied that declaration would significantly promote competition in the short term***

The ACCC notes that VHA argued that the ACCC failed to undertake quantitative analysis on the magnitude of welfare gains resulting from declaration. As discussed above, the ACCC considers that there is a significant degree of uncertainty associated with how declaration is likely to impact market outcomes and whether it would lead to better outcomes for consumers. The ACCC is not convinced by submissions which claim that declaration would unequivocally lead to improved competition and lower prices for all consumers. As discussed in earlier sections, no persuasive evidence has been provided that declaration will lead to significant welfare benefits for consumers in terms of lower prices. In these circumstances, the ACCC does not consider it is possible or necessary to conduct a quantitative analysis to estimate the possible welfare gain, if any, of declaration. Further, declaration would have longer term effects on dynamic competition which is impossible to quantify. This will be discussed further below.

For these reasons, the ACCC is not satisfied that declaration would significantly promote the LTIE because it would not lead to significantly better market outcomes for consumers in the short term.

### **Declaration may distort competitive dynamics and reduce incentives to differentiate services**

In the longer term, declaration has the potential to distort the competitive dynamics currently in the market and reduce incentives for MNOs to seek to differentiate services. This is because declaration removes geographic coverage as a point of differentiation between the services of the MNOs, and can impact the MNOs' incentives to compete on this and other factors.

As noted earlier, the mobile services market is a market for similar but differentiated services. MNOs invest and innovate to differentiate themselves in order to gain competitive advantages. The ability to do so provides ongoing incentives to all MNOs to continue to invest and innovate. Conversely, if a competitive advantage is gained but then removed by declaration, then declaration may actually harm the competitive process by reducing the MNOs' incentives to invest and differentiate in the future.

In this case, declaration would remove Telstra's geographic coverage as a competitive advantage. VHA argued that competition over geographic coverage is ineffective because of Optus and VHA's inability to match Telstra's geographic coverage.

The ACCC has found, however, that Optus [c-i-c] Declaration has the potential to remove the incentives of the MNOs to differentiate themselves and apply competitive pressures on each other in this way.

If declaration was to include the Telstra-Optus areas and enable VHA to have access to either Optus' or Telstra's network, the distortion to the competitive process is likely to be even greater.<sup>186</sup> This is because there is evidence that Optus and Telstra are actively competing with each other on network quality in these areas. For instance, in areas where Telstra currently has better coverage depth, VHA has incentives to acquire the declared service from Telstra. This would clearly benefit VHA, but would seriously disadvantage Optus, for whom the return of ongoing investments to match or beat Telstra's network quality in these areas would be reduced. Declaration in these circumstances can harm the

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<sup>186</sup> However, it is unlikely that Optus would be able to acquire the declared service from Telstra in these areas as it has coverage in these areas.

competitive process by penalising firms that actively invest to compete, and reward those that do not. Consequently, any potential competitive response that Optus elicits from Telstra to improve its network to maintain its market position is also likely to be hampered.

For these reasons, the ACCC considers that declaration has the potential to reduce incentives for the MNOs to compete on network quality and likely incremental improvements in geographic coverage in the longer term. This will ultimately harm the interests of consumers.

### **Declaration is unlikely to facilitate new entry**

The ACCC reached the preliminary view that declaration is unlikely to facilitate new entry. Specifically, the ACCC noted that while other jurisdictions have regulated roaming to facilitate new entry, the circumstances under which roaming has been regulated are different to those facing the Australian market. The ACCC also considered that declaration of a roaming service in regional areas is unlikely to facilitate the entry of a new MNO, such as TPG, who will most likely acquire a roaming service in more densely populated parts of Australia. The ACCC expressed the view that, given all three MNOs have coverage in these areas, it is expected that a new entrant will be able to negotiate a commercial roaming agreement.

Telstra and Optus agreed with the ACCC's preliminary views. However, VHA argued that, like TPG, who will be a new entrant to the metropolitan market, VHA is a new entrant to the regional market.<sup>187</sup> In addition, VHA also submitted that in the absence of declaration, **[c-i-c]**

The ACCC considers that VHA's arguments reflect its view that there are separate geographic markets and strict demarcation of the boundaries of competition. As discussed in Section 4, the ACCC considers that there is a national mobile services market although there are variations in competitive dynamics in different regions. The ACCC acknowledges that VHA is less able to compete for some consumers and that declaration of a mobile roaming service may enable it to better compete for these consumers. However, there is an important difference between promoting competition and promoting the ability of individual competitors. In this regard, the Australian Competition Tribunal has previously stated that "it is important not to confuse the objective of promoting competition with the outcome of ensuring the greatest number of competitors",<sup>188</sup> and that it "is concerned with furthering competition in a forward looking way, not furthering a particular type or number of competitors".<sup>189</sup> Consistent with this, the ACCC considers the relevant question is whether declaration would promote the LTIE by considering the extent to which it would promote competition overall in the relevant markets, not whether it will help individual competitors. The ACCC has provided its views and findings on this above.

The ACCC does not consider that the possibility that **[c-i-c]** changes the ACCC's findings. The ACCC does not consider that **[c-i-c]**. There is evidence that VHA is continuing to make investments to improve its network in both metropolitan and regional areas. While it is possible that VHA may **[c-i-c]**, the ACCC has found that equal geographic coverage is not essential for the MNOs to compete in the national mobile services market. It is clear from the analysis in Section 5 that overall, VHA is competing effectively in the national market – it has solid market shares in capital cities, particularly in Sydney where its market share is higher

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<sup>187</sup> VHA, Submission to draft decision, Attachment C, pp. 5–6.

<sup>188</sup> *Re: Final Decision by the Australian Competition and Consumer Commission Dated August 2006 in respect of Ordinary Access Undertakings Submitted by Telstra Corporation Limited for the Unconditioned Local Loop Service*, at [99].

<sup>189</sup> *Sydney Services Pty Limited* [2005] ACompT 7 at [136].

than Telstra's and Optus'. The finding that an MNO does not need extensive geographic coverage to compete effectively is further supported by TPG's pending entry to the market.

Consistent with the ACCC's preliminary view, the ACCC does not consider that declaration of a roaming service is necessary to facilitate the entry of TPG. However, where TPG considers that it needs a roaming service in more densely populated areas, the ACCC considers the existence of three MNOs that have coverage in those areas should provide sufficient conditions for competitive wholesale roaming services to be provided such that TPG could obtain a commercial roaming solution. The ACCC would be concerned if there is a situation where, despite there being conditions for competition to occur, a competitive outcome could not be achieved. If this outcome suggested anti-competitive conduct, the ACCC would be prepared to investigate further.

### **Summary of the ACCC's findings**

Consistent with the ACCC's preliminary views, the ACCC considers that:

- Declaration of a mobile roaming service would improve Optus and VHA's ability to compete for consumers that currently choose Telstra because of its geographic coverage in the Telstra-only areas, regardless of where they live.
- If declaration is extended to the Telstra-Optus areas, VHA would be able to compete for some consumers who value better network quality in these areas.
- However, the MNOs compete over many factors. Declaration would not eliminate or materially reduce Telstra's competitive advantage on other factors, significantly the quality of its network. Therefore, declaration is unlikely to improve Optus and VHA's ability to compete with Telstra significantly overall in the mobile services market.
- The precise impact of declaration on retail prices and retail pricing is uncertain. Declaration may result in Telstra facing some pressure to reduce its prices, but this is unlikely to be significant. Against this, declaration may lead Optus and VHA to increase the prices of their services to reflect the additional costs they incur in acquiring declared roaming services if they maintain uniform national prices.
- If uniform national pricing is maintained, there is therefore a risk that consumers who do not value geographic coverage may be forced to pay higher prices, but this risk might be reduced by the pending entry of TPG who may compete predominantly for these consumers if TPG does not seek to acquire the declared roaming service to obtain the same coverage as the existing MNOs.
- There is also a possibility that if a roaming service is declared, the MNOs may move away from uniform national pricing to de-averaged pricing, which is likely to see prices increase for use of mobile services in regional areas.
- Declaration would remove geographic coverage as a point of differentiation in mobile services in the market and may distort the competitive dynamics currently in place in the market, particularly in relation to the competition between Telstra and Optus over network quality in regional areas, as well as incremental improvements in geographic coverage. This will harm the interests of consumers in the longer term.
- Declaration in regional areas of Australia is unlikely to facilitate the entry of a new MNO entering the market. A new MNO is more likely to require a roaming service in more densely populated areas of Australia, and should be able to negotiate a roaming agreement with existing MNOs.

Given these findings, the ACCC considers that declaration would not promote competition in the mobile services markets to any significant extent such as to promote the LTIE.

## 7. Any-to-any connectivity

Any-to-any connectivity is a fundamental requirement that ensures each person using a similar telephone service is able to communicate with each other. It is designed to ensure calls can always be made and received between consumers using similar services (such as mobile-to-mobile or fixed-to-mobile calls) no matter the originating or terminating network.

The objective of achieving any-to-any connectivity is only relevant in the declaration context with respect to services that involve communications between end-users. For example, it will be particularly relevant when considering services that require interconnection between different networks.

For the purposes of this inquiry, the ACCC has assessed the objective of achieving any-to-any connectivity by:

- outlining the legislative requirements contained in Part XIC of the CCA and the ACCC's general approach as described in the relevant ACCC guidelines;<sup>190</sup>
- reviewing the ACCC's previous views on any-to-any connectivity; and
- considering the range of views put forward in submissions in response to the discussion paper and to the ACCC's draft decision.

### 7.1. Legislative requirements

In determining whether declaration would promote the LTIE, the ACCC has had regard to the extent to which declaration is likely to result in the achievement of the objective of any-to-any connectivity in relation to carriage services.<sup>191</sup>

The CCA provides that the objective of any-to-any connectivity is achieved if, and only if, each end-user who is supplied with a carriage service that involves communication between end-users is able to communicate, by means of that service, or a similar service, with each other whether or not they are connected to the same network.<sup>192</sup>

### 7.2. ACCC guidelines

In August 2016, the ACCC released the ACCC Declaration Guideline, which states that the achievement of any-to-any connectivity is particularly relevant when considering services that require interconnection between different networks.<sup>193</sup>

In considering whether declaration is likely to achieve this objective, the ACCC will generally examine whether any-to-any connectivity will be agreed between service providers in the absence of declaration. This might involve considering the length of time and costs associated with negotiating any-to-any connectivity arrangements. Where the arrangements are expected to involve negotiations between multiple parties, declaration may have the potential to settle interconnection arrangements more quickly and efficiently through the application of the standard access obligations.<sup>194</sup>

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<sup>190</sup> ACCC Declaration Guideline, p. 40.

<sup>191</sup> CCA, section 152AB(2)(d).

<sup>192</sup> CCA, section 152AB(8).

<sup>193</sup> ACCC Declaration Guideline, p. 40.

<sup>194</sup> ACCC Declaration Guideline, p. 41.

In practice, these interconnection arrangements are already in place and working effectively, with consumers able to make and receive calls to and from any mobile or fixed telephone service in Australia, irrespective of the network they are calling from/to.

### 7.3. Historical ACCC views on any-to-any connectivity

Notwithstanding the above, the ACCC acknowledges that it has considered the relevance of any-to-any connectivity in two previous inquiries about whether to declare domestic mobile roaming and this has resulted in two interpretations of the criterion. In the ACCC's 1998 inquiry into domestic roaming, the ACCC stated that it: '...considers that domestic inter-carrier roaming is unrelated to any-to-any connectivity as it involves the connection of a customer to a network rather than communication between two customers who are already connected. Roaming should be regarded as promoting the related concept of ubiquity.'<sup>195</sup>

In the ACCC's 2005 inquiry into domestic roaming, the ACCC reconsidered this view in light of submissions and decided that:

- Domestic inter-carrier roaming permits a subscriber to make calls when outside his or her network area, thereby enabling the subscriber to communicate with other end-users.
- Moreover, when a subscriber is outside his or her network area, domestic inter-carrier roaming permits the subscriber to receive calls, thereby enabling other end-users to communicate with that subscriber.<sup>196</sup>

Thus in 2005 the ACCC concluded that the provision of domestic inter-carrier roaming services was likely to result in the achievement of any-to-any connectivity.<sup>197</sup>

Stakeholder submissions have understandably focused on one or the other of the ACCC's previous interpretations of any-to-any connectivity. That is, submissions have focused on whether, in the context of mobile networks, the criterion should be interpreted as relating to:

- achieving any-to-any connectivity between networks (a narrower definition which would tend to suggest that this criterion is less relevant to the ACCC's LTIE assessment), or
- achieving any-to-any connectivity between individual end-users (a broader definition which would suggest that greater weight should be given to this criterion in the ACCC's LTIE assessment).

In the ACCC's view, the narrower definition of any-to-any connectivity should be preferred and this criterion should be given little, if any, weight. Stakeholder submissions and the ACCC's reasons for its final findings are outlined in further detail below.

### 7.4. Submissions vary in their views on assessing any-to-any connectivity

#### **Some submissions favour the narrower definition of any-to-any connectivity**

Optus and Telstra both made submissions which favour a narrower definition of any-to-any connectivity. In Optus' submission, declaration of a roaming service is unlikely to have an

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<sup>195</sup> ACCC, *Public inquiry into declaration of domestic inter-carrier roaming under Part XIC of the Trade Practices Act 1974*, March 1998.

<sup>196</sup> ACCC, *Mobile Services Review: Mobile domestic Inter-carrier Roaming Service*, December 2004, p. 44.

<sup>197</sup> *ibid*, p. 44.

impact on any-to-any connectivity with or without declaration as any-to-any connectivity is already being achieved.<sup>198</sup>

Telstra submitted that:

- Interconnection, through the regulated mobile terminating access service (MTAS), already achieves any-to-any connectivity between mobile devices connected to different mobile networks when those devices are within their respective network's coverage areas.
- The purpose of this objective is to ensure connectivity between customers connected to different networks and not with the lack of connectivity or coverage within an individual network for its own customers.<sup>199</sup> The objective of any-to-any connectivity is directed at achieving interconnection between end-user services connected to different networks. That is, in the case of mobile, each end-user service is within its home network's coverage area.
- Any-to-any connectivity is not about creating connectivity within an individual network where the MNO does not have its own coverage. Therefore, roaming would not relevantly promote any-to-any connectivity.<sup>200</sup>

### **Other submitters considered the ACCC should favour a broader interpretation of any-to-any connectivity**

VHA and Pivotel favoured a broader interpretation of any-to-any connectivity, suggesting that the criterion should be read as relating to any-to-any connectivity between individual end-users.

VHA submitted that:

- The ACCC has erred in adopting a narrower view of any-to-any connectivity.
- Any-to-any connectivity is promoted by roaming because it allows communications between mobile end-users in circumstances where this would otherwise not be possible.<sup>201</sup>

Pivotel submitted that:

- Any-to-any connectivity should not just be considered in the context of interconnect arrangements between carriers, it should be considered in the context of end-users being able to communicate with other end-users, whether on the same network or not.<sup>202</sup>
- Any-to-any connectivity should be considered in the context of MTM and IoT services because extended coverage is preferred, for example, in relation to connected cars.<sup>203</sup>

VHA further submitted that mobile roaming services are inherently interconnection service involving roaming originating access and roaming terminating access. Roaming services are therefore analogous to MTAS which is a declared service and which has been stated by the ACCC to promote any-to-any connectivity.<sup>204</sup>

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<sup>198</sup> Optus, Submission to draft decision, pp. 26, 30.

<sup>199</sup> Telstra, Submission to discussion paper, p. 83.

<sup>200</sup> *ibid.*, pp. 115–116.

<sup>201</sup> VHA, Submission to draft decision, Attachment C, p. 12.

<sup>202</sup> Pivotel, Submission to draft decision, p. 4.

<sup>203</sup> Pivotel, Submission to draft decision, p. 5.

<sup>204</sup> VHA, Submission to draft decision, Attachment C, p. 13.

## 7.5. The ACCC concludes that this factor should be given little, if any, weight

In the ACCC's view, the any-to-any connectivity criterion is designed to facilitate connectivity between competing networks and is not designed to enable connectivity outside of a network's own coverage footprint. As such, the ACCC does not agree with the broader interpretation of any-to-any connectivity advocated by VHA and Pivotel.

The ACCC has also considered VHA's arguments that mobile roaming services are inherently interconnection services<sup>205</sup> and that this means that roaming therefore promotes interconnection and any-to-any connectivity between networks. While we accept VHA's technical evidence that roaming services require interconnection between the home network and the roaming network for the purposes of routing calls etc., the provision of a roaming service utilises interconnection arrangements that are already in place in the absence of declaration.

Further, the ACCC does not accept VHA's submission that mobile roaming is analogous to MTAS and therefore implicitly promotes any-to-any connectivity.<sup>206</sup>

In the ACCC's view, the any-to-any objective in the LTIE test is designed to ensure that competing networks make the necessary arrangements to interconnect with each other and to avoid a scenario where an operator could simply decline to connect services from an end-user on a rival network. This is because the value of the network to an end-user depends on the number of other users that the network allows the end-user to reach. Without any-to-any connectivity, smaller networks can only offer services to their own end-users, and will find it difficult to attract new users. Relevantly, in the absence of domestic roaming, VHA customers are still able to contact customers of other networks, and customers of other networks are still able to contact VHA customers. Interconnection, for the purposes of ensuring any-to-any connectivity between networks is therefore satisfied.

For the reasons above, the ACCC remains of the view that declaration is not likely to achieve the objective of achieving any-to-any connectivity, because interconnection arrangements are already in place and this criterion should be given little, if any, weight. As such, the ACCC's conclusion is that the achievement of any-to-any connectivity is not relevant to its consideration of whether declaration would promote the LTIE.

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<sup>205</sup> VHA, Submission to draft decision, Attachment G, *Second statement of Easwaren Siva*, 16 June 2017.

<sup>206</sup> VHA, Submission to draft decision, Attachment C, p.13.

## 8. Efficient investment in, and use of, infrastructure

### Key points

- The ACCC considers that declaration may result in some efficiency gains in allowing access seekers to use any excess capacity available on the access provider's existing infrastructure in regional and remote areas.
- However, declaration is unlikely to significantly promote efficient use of infrastructure more generally, as declaration would not promote competition or lead to more efficient prices in the retail mobile services market.
- The ACCC considers that declaration would potentially distort Optus' current investment incentives to compete with Telstra on network quality and differentiate its services. This would indirectly impact Telstra's ongoing incentives to respond to Optus' investments. Declaration is also unlikely to encourage more efficient investments by VHA in expanding its network.
- For these reasons, the ACCC does not consider that declaration would promote the economically efficient investments in infrastructure in the present case.
- The ACCC is inclined to consider that the supply of a mobile roaming service is technically feasible given past domestic and international roaming arrangements. In any case, the ACCC considers it unnecessary to fully explore the technical issues involved in the present case given the other findings.

The third element that the ACCC considers in determining whether declaration would promote the LTIE is whether it would encourage the economically efficient use of, and investment in, infrastructure. In determining the extent to which it may do so, regard must be had to:

- the technical feasibility of providing and charging for a roaming service;
- the legitimate commercial interests of the suppliers of the roaming service; and
- the incentives for investment in infrastructure.<sup>207</sup>

The concept of efficiency has a number of dimensions. When considering economic efficiency, the ACCC has had regard to the following types of efficient outcomes:

- a productively efficient outcome, whereby service providers use the least cost input mix required to produce retail goods or services
- an allocatively efficient outcome, whereby the set of goods and services that consumers value most are produced from a given set of resources, and
- a dynamically efficient outcome, whereby innovation leads to the development of new services or improvements in production techniques or the efficient deployment of resources between present and future uses so that the welfare of society is maximised over time.

When considering incentives for investment in infrastructure, the ACCC also has regard to the risks involved in making the investment. Facility owners will not commit to major new capital outlays without expectation of profits commensurate with the commercial risks involved.

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<sup>207</sup> CCA, sections 152AB(6) and (7).

## 8.1. Would declaration encourage efficient use of infrastructure?

### 8.1.1. ACCC's preliminary view

In reaching its preliminary view, the ACCC examined information provided by the MNOs on the level of network utilisation on their networks and capacity provisioning. The ACCC considered that there are marginally higher levels of excess capacity on Telstra's network in remote and very remote parts of Australia than in more populated areas. The ACCC found that while it is impossible to accurately predict the level of roaming traffic resulting from declaration, there is likely to be some efficiency gains from allowing access seekers' customers to use Telstra's network in these areas.

The ACCC however did not consider that declaration would encourage the more efficient use of networks more generally. This is because efficiency in use is closely linked to efficiency in prices in the retail market. The ACCC expressed the view that declaration would not promote competition and lead to more efficient prices in the market. Therefore, the ACCC considered that declaration would not significantly promote the more efficient use of network infrastructure overall.

### 8.1.2. The ACCC maintains its preliminary view

Only Optus commented on this issue. Optus agreed that declaration is unlikely to materially promote efficient use of existing infrastructure. However, Optus disagreed with the finding that declaration would result in better use of the excess capacity in Telstra's regional sites. Optus argued that declaration would only, at best, result in a transfer of customers from one provider to another and any increase from metropolitan consumers travelling to regional areas would be immaterial and unmeasurable, and therefore should not be given any weight in consideration.<sup>208</sup>

The ACCC acknowledges that declaration would result, to some extent, in a transfer of customers from one provider to another and this would not increase the overall traffic on the access provider's network. The ACCC also agrees that the increase in roaming traffic due to other consumers travelling to areas subject to declaration is not easily measurable. However, the ACCC does not consider that this means the effect is immaterial or should not be taken into account. The ACCC notes that the increase in traffic may not only come from metropolitan consumers travelling to regional areas, but also from regional consumers who prior to declaration did not choose Telstra. The ACCC therefore maintains its view that declaration is likely to result in at least some efficiency gains in areas where there is excess capacity by allowing access seekers' customers to utilise the access provider's network.

However, the ACCC finds that overall, declaration would not significantly promote the more efficient use of existing infrastructure as it would not promote competition and lead to more efficient prices.

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<sup>208</sup> Optus, Submission to draft decision, p. 24.

## 8.2. Would declaration encourage efficient investment in infrastructure?

### 8.2.1. ACCC's preliminary view

In reaching its preliminary view, the ACCC examined the MNOs' current incentives to invest, expand and improve coverage and how declaration would likely impact each MNO's investment incentives.

The ACCC found that:

- While declaration would have some impact on Telstra's incentives to invest in expanding its network beyond its current footprint, that impact would not be significant as Telstra's commercial incentives to continue to increase geographic coverage is low.
- Declaration may have some marginal effect on Telstra's incentives to invest in its existing network, such as investments to upgrade 4G and expand capacity. These incentives could be preserved to a large extent by an appropriate regulated price. Telstra would also have other incentives to upgrade its network to 4G, such as to maintain its network footprint after the closure of 3G, and the efficiency of 4G technology.
- Declaration coupled with appropriate regulated pricing would generally provide Optus with incentives to make efficient build/buy decisions in areas where declaration applies. There is the risk however that if regulated price is set too high or low, it may lead to under- or over- investment.
- On the other hand, declaration would distort Optus' incentives to differentiate its network and compete with Telstra on network quality if it extends into the Telstra-only areas, given Optus is unlikely to completely match Telstra's geographic coverage.
- Declaration is unlikely to have a significant impact on VHA's incentives to make efficient investments, by materially increasing VHA's incentives to make efficient investment where it is currently unable to do so.
- Declaration would not significantly promote efficient investment in areas with infrastructure competition.

Overall, the ACCC considered that in the absence of a clear market failure to deliver efficient outcomes, declaration has the potential to distort efficient investment incentives and may have unintended consequences. As such, the ACCC considered that declaration would not promote the economically efficient investment in infrastructure.

### 8.2.2. Submissions to the draft decision are mixed

Consistent with previous submissions received in this inquiry, many submissions to the draft decision from regional and remote community groups, business groups, local and state governments and individual MPs expressed concerns over the impact of declaration on the MNOs' incentives to make ongoing investment in regional Australia.<sup>209</sup>

Submissions from the MNOs and other industry stakeholders on the ACCC preliminary findings on this issue are mixed.

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<sup>209</sup> See for example, Rural City of Wangaratta, Submission to draft decision, 22 May 2017; Delta Agribusiness, Submission to draft decision, 31 May 2017; WAFarmers, Submission to draft decision, 1 June 2017; NSW Government, Submission to draft decision, 14 June 2017; Mark Coulton MP, Submission to draft decision, 24 May 2017.

Telstra and Optus generally agreed with the ACCC's preliminary view that declaration would not promote economically efficient investment in the present case.<sup>210</sup> Telstra, however, considered the ACCC understated both Telstra's incentives to make ongoing investment to expand its network coverage and the relevance of co-investment programs to the assessment of the LTIE.<sup>211</sup>

VHA on the other hand, disagreed with the ACCC's preliminary findings. VHA argued that declaration would reduce barriers to expansion and increase incentives to infrastructure sharing. VHA also argued that the ACCC gave disproportionate weight to Optus' potential investment in regional areas which VHA considered to be trivial and competitively irrelevant. VHA submitted that setting an appropriate regulated price ensures that there will be efficient build or buy decisions and that the difficulty of setting an appropriate regulated price is an irrelevant consideration. Further VHA considered that the ACCC failed to consider refinement to the scope of the declared service to address any potential concerns that declaration would impede investment incentives.<sup>212</sup>

VHA further expressed concern that the ACCC appeared to give disproportionate weight to submissions from regional organisations that are highly dependent upon Telstra, which took Telstra's public statements at face value, and which contained no facts or evidence.<sup>213</sup>

Pivotel expressed concerns over the ACCC's finding on the impact of declaration on ongoing investments despite recognising that there is no commercial incentive for any MNO to provide new coverage to unserved geographic areas in the absence of government subsidies. Pivotel was also concerned that one of the reasons for the ACCC's proposal to not declare a mobile roaming service is the difficulty of setting an access price.<sup>214</sup>

Aerostats All Australia (AAA) submitted that declaration would result in a collapse of investment in regional Australia where operators will 'cherry pick' and invest in some areas and roam in others. AAA considered that declaration would also be likely to result in cheap and inferior mobile services.<sup>215</sup>

The ACCC does not accept VHA's contention that it gave disproportionate weight to submissions from regional organisations which expressed concerns over the impact of declaration on investments in regional areas. The ACCC gave due weight and consideration to all submissions received. Its views on whether declaration would encourage economically efficient investments in infrastructure are discussed below and are based on the substantive issues raised in submissions and evidence that it received in the inquiry.

### **8.2.3. Impact of declaration on Telstra's incentives to make efficient investment**

As noted in the draft decision, Telstra has committed to the following investment initiatives in the absence of declaration:

- \$350 million in new technology and regional base stations
- Up to \$229 million to continue its work on the first two rounds of the Mobile Black Spot Program

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<sup>210</sup> Telstra, Submission to draft decision, pp. 32–42; Optus, Submission to draft decision, pp. 24–25.

<sup>211</sup> Telstra, Submission to draft decision, pp. 33, 40–41.

<sup>212</sup> VHA, Submission to draft decision, pp. 15–19.

<sup>213</sup> VHA, Submission to draft decision, p. 8.

<sup>214</sup> Pivotel, Submission to draft decision, pp. 2, 8.

<sup>215</sup> AAA, Submission to draft decision, p. 2.

- \$100 to \$200 million for new regional co-investments.<sup>216</sup>

Other than these headline figures, Telstra has not provided any specific plans in relation to its investment outlook, such as where it plans to make these investments and how it intends to continue to extend its current coverage footprint.

Telstra disagreed with the ACCC's preliminary view that Telstra's current incentives to expand its network are low. Telstra argued that it continues to have an incentive to maintain its lead in the coverage race and will continue to expand its network footprint as Optus narrows the gap. Telstra also submitted that investment in network quality may also result in incremental improvements in network coverage, such as with the upgrade to 4G. Further Telstra argued that, with changing demand, there may be new incentives to expand coverage, such as to cater for the development of IoT and M2M applications.<sup>217</sup>

The ACCC considers that Telstra's investment strategy, in so far as extending geographic coverage is concerned, is largely reactive and dependent on what its competitors do. This is reflected in Telstra's submission that it has incentives to continue to expand its network in order to maintain the lead in coverage race. Given Telstra's already extensive network footprint, the incentives to keep expanding independent of what its competitors do are likely to be limited. However, as recognised in reaching its preliminary view, the ACCC considers that declaration may indirectly impact Telstra's incentives to respond to its competitors by reducing the incentives of its competitors to make efficient investments to compete with Telstra. This is discussed in more detail in later sections.

The ACCC acknowledges the possibility of future generations of technology to improve the extent of coverage that can be achieved by current generations of technology. The ACCC also recognises, as noted in Section 4, that the rise of IoT and M2M services may provide new incentives and business cases for the MNOs to extend their network. It is however impossible to speculate at this point in time, as to the extent to which these would likely affect Telstra's incentives to expand its network coverage, other than noting that they have the potential to affect these incentives.

Telstra also disagreed with the ACCC's preliminary view that Telstra's incentives to upgrade its network to 4G in the Telstra-only areas is likely to be largely unaffected. Telstra argued that upgrading to new technology in regional and remote areas requires significant capital investment and the ACCC should not presume that Telstra will continue to roll out 4G beyond 99 per cent of population in light of the closure of 3G if a mobile roaming service is declared.<sup>218</sup>

The ACCC's preliminary view was that Telstra is likely to maintain its incentive to roll out new technology in the Telstra-only areas even in the event of declaration for a number of reasons. First, Telstra may want to maintain its network footprint when 3G is closed. Second, an appropriately set regulated price is likely to take into account the costs to Telstra in upgrading its network with new technology and therefore allow Telstra to share the cost of upgrade. Third, new generations of mobile technology are usually more efficient and this provides an additional incentive to upgrade.<sup>219</sup>

Telstra did not address any of these reasons. It simply claimed that the ACCC should not presume that Telstra will continue to roll out new technology in the event of declaration

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<sup>216</sup> Telstra, Submission to draft decision, p. 32.

<sup>217</sup> Telstra, Submission to draft decision, pp. 33–34.

<sup>218</sup> Telstra, Submission to draft decision, pp. 34–35.

<sup>219</sup> ACCC, Draft decision, pp. 70–72.

without explaining why these reasons do not apply. The ACCC therefore does not find Telstra's argument on this issue to be convincing.

Telstra further disagreed with the ACCC's preliminary approach in discounting co-investment programs when considering how declaration may affect Telstra's incentives to make efficient investments. Telstra argued that the ACCC's consideration of efficient investment only focuses on productive efficiency whereas co-investment programs also improve allocative efficiency, which improves social welfare. Telstra explained that given the economics of investing in regional and remote Australia, it is impossible for the MNOs to price in such ways as to capture sufficient profits to recover the cost of investing in these areas. Other parties, such as the government, therefore step in to make co-investment from general tax pool or from other revenue streams that are beneficiaries of the mobile investments.<sup>220</sup>

The ACCC understands and supports the reasons for co-investment programs as they serve as important and necessary policy measures to improve the welfare of consumers. The ACCC notes co-investment programs are necessary, particularly in remote and regional Australia, because there are some investments that a competitive market will not otherwise deliver.

Competition and economic efficiency are inextricably linked and a competitive market is a means to achieving economic efficiencies, including productive efficiency, allocative efficiency and dynamic efficiency. Pricing structures and price levels in the mobile services market are products of competition in the market. Telstra appears to recognise that, under current market conditions, it is impossible for it to recover the cost of some investments without co-investments from other parties, even under the uniform national pricing where there are presumably some cross-subsidisation between different groups of its customers. The ACCC considers that this suggests that the price that consumers are willing to pay, in competitive markets, for the additional infrastructure may be less than the cost of providing it.

The ACCC recognises that there may be benefits to consumers which may not otherwise be taken into account in the prices that consumers are willing to pay in a competitive market. For instance, there may be indirect benefits to all consumers that accrue from mobile network investments other than the private benefit enjoyed by the consumers that are paying for the services resulting from the investments. This would mean that it is possible for allocative efficiency to be improved by investments that would not otherwise be delivered by a competitive market, e.g. investments as part of co-investment programs.

However, it is difficult, if not impossible, to quantify the external benefits of additional investments to consumers that are not reflected in market prices. Therefore, it is difficult to determine whether, and to what extent, investments made as part of co-investment programs, improve efficient outcomes. This also makes it difficult to take into account the MNOs' incentives to participate in these programs when assessing whether declaration would promote the LTIE. In any case, the ACCC does not consider that it is necessary in the present case to make a determinative finding on this issue, given the other findings in the inquiry.

The ACCC considers that, overall declaration may affect Telstra's incentives to expand its network coverage to respond to its competitors if it reduces its competitors' incentives to compete with Telstra. To the extent that Telstra may have other incentives to expand its network footprint due to new technologies or the rise of IoT and M2M applications, declaration may also have the potential to impact these incentives.

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<sup>220</sup> Telstra, Submission to draft decision, p. 40.

On the other hand, the ACCC maintains the view that declaration would not significantly impact Telstra's ongoing incentives to upgrade its existing networks with new technologies in the Telstra-only areas.

#### **8.2.4. Impact of declaration on Optus' incentives to make efficient investments**

Telstra and Optus both agreed with the ACCC's preliminary finding that declaration would likely distort Optus's current incentive to invest and compete with Telstra, mainly on network quality in regional areas.

On the other hand, VHA argued that the ACCC failed to recognise the trivial nature of the investment by Optus relative to the scale of the Telstra footprint, hence the trivial impact on Optus' ability to compete on coverage. VHA considered that this means that Optus cannot make a material competitive impact with its investments, absent declaration. VHA also considered that the ACCC's conclusions regarding the lack of credibility of public statements made by Telstra are inconsistent with the weight given by the ACCC to similar statements by Optus, as Optus has been ambiguous as to precisely where investment will be directed.<sup>221</sup>

The ACCC has sought extensive information from Optus in relation to its forward looking investment plans and its investment strategies both prior to and after the release of the draft decision. The ACCC considers that Optus provided more specific information on its investments than Telstra did and the ACCC is satisfied of the credibility of its current investment incentives and strategies.

Optus' forward looking investment is focused on improving its network quality in regional areas to compete with Telstra. While the ACCC recognised that the potential for Optus to completely match Telstra's geographic coverage is limited, the ACCC considered that there remains potential for Optus to extend its network into Telstra-only areas.

The ACCC sought further clarifications and updates from Optus in relation to its investment plans during the inquiry. The ACCC understands that Optus intends to **[c-i-c]** The ACCC considers that there is a clear focus in Optus' investments on actual customer experiences and a belief that this is the key factor that will enable Optus to compete more effectively with Telstra in regional areas and gain market shares. As noted in Section 5, it appears that Optus has also been **[c-i-c]**

The ACCC does not agree with VHA's assertion that Optus' investments are trivial and competitively irrelevant. The ACCC considers that VHA's argument still centres on the assumption that if an MNO cannot match Telstra's geographic coverage, then it cannot effectively compete at all. As discussed in detail in Sections 5 and 6, the ACCC found no evidence that this is how competition works in the mobile services market.

The ACCC considers that Optus can and is competing effectively with Telstra on factors other than geographic coverage, including in regional areas. This does not mean that it currently matches Telstra on these other factors, but there is evidence that it is in the process of actively matching or exceeding Telstra's network quality in some areas. The ACCC considers that Optus' investments are driven by competition in the market where network quality is a key factor that consumers value and on which MNOs compete. Such investments are efficient and will lead to improvements in the quality of mobile networks for consumers.

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<sup>221</sup> VHA, Submission to draft decision, Attachment C, p. 16; See also VHA, Supplementary submission to discussion paper, Part A, pp. 73–75.

The ACCC maintains the view that declaration would likely distort Optus' current incentives to make these efficient investments. Declaration removes geographic coverage as a key differentiator and distorts the MNOs' incentives to differentiate themselves on network coverage and quality in order to gain competitive advantage over their competitors. It is also likely to remove Optus' incentives to either deploy a better network than Telstra if it does expand its network into the Telstra only area, or [c-i-c].

VHA appears to argue that declaration would not affect the MNOs' investments on network quality and coverage depth outside areas where declaration applies. In practice, the ACCC considers that the potential for declaration to adversely affect Optus' incentives to compete with Telstra on network quality in areas where both have coverage remains. This is because Optus considers that [c-i-c] This clearly indicates that consumers are willing to trade off between wider geographic coverage and better network quality when choosing their providers. If Telstra and Optus have the same geographic coverage, there is a risk that the incentives of Optus to improve its network quality [c-i-c] is likely to be reduced or eliminated altogether.

The ACCC believes that a regulated price could be designed to provide Optus with incentives to make efficient build/buy decisions in areas where declaration applies. Conceivably, a regulated price could also be designed to address incentives to compete on network quality. However, the risk of a regulated price that would distort Optus' incentives to compete on network quality is likely to be higher, due to the dynamic nature of competition over differentiated services (as opposed to just replicating the competitor's network).

The ACCC notes submissions by VHA and Pivotel that the difficulty of setting a regulated price is not a relevant consideration. The ACCC considers that the difficulty in setting an appropriate regulated price increases the risk that declaration will have unintended consequences on the MNOs' investment incentives, and therefore is a relevant consideration in assessing whether declaration would promote economically efficient investments in infrastructure. The ACCC does not consider that difficulty in setting a regulated price determines whether a service should be declared. Rather, the risk associated with the difficulty and the potential impact on investment incentives, should be a factor considered with other potential impacts of declaration in assessing whether declaration would promote economically efficient investments in infrastructure.

For the reasons discussed above, the ACCC finds that, in the present case, declaration of a mobile roaming service has the potential to distort Optus' current incentives to make efficient investments to compete with Telstra. This would also have the consequence of adversely affecting any investments which Telstra may undertake in response to Optus. Therefore, declaration may undermine these competitive dynamics and delay any incremental improvement in the coverage and quality of mobile networks in regional areas that may result from these competitive dynamics.

#### **8.2.5. Impact of declaration on VHA's incentives to make efficient investments**

The ACCC's preliminary view was that declaration would not have a significant impact on VHA's incentives to make efficient investments and reduce barriers for VHA to invest in expanding its coverage into areas where it currently cannot do so.

Telstra agreed with the finding and submitted that VHA's claim that declaration would encourage and incentivise VHA to invest in expanding its coverage footprint is not credible for a number of reasons. First, any increase in revenues that VHA is likely to gain after acquiring roaming is unlikely to justify incurring the fixed costs to build in regional and remote

areas. Second, there is difficulty in ensuring that the access pricing preserves incentives for access seekers to make risky investments rather than lobbying for risk-free access to the access provider's network, which has been acknowledged by VHA's expert, Mr Feasey, in another context.<sup>222</sup> Third, VHA's current footprint represents the outcome of investment decisions it has made about the network it needs for its target customer base and there are other value propositions that VHA could pursue to provide appeal to its customer base without requiring extensive regional coverage.<sup>223</sup>

On the other hand, VHA disagreed with the finding and submitted that declaration would reduce barriers for it to expand its network in areas that it currently could not do so. VHA argued that the barrier to expanding coverage is financial and the time it takes to build market share from an investment in a locality acts as constraint on the economics of build, particularly if the market share in the locality is already low. VHA considered that roaming enables an MNO to build market share in a locality to a level where it can then invest.<sup>224</sup>

To support its argument, VHA referred to evidence it provided earlier in the inquiry on how its investment decisions are underpinned by its current Optus roaming agreements. In VHA's submission in response to the discussion paper, VHA submitted that **[c-i-c]** VHA also argued that it had provided extensive international evidence that roaming has promoted investment, rather than impeded it. For instance, VHA noted in its submission to the discussion paper that after the mandated roaming rule was expanded to cover data services in the United States in 2011, the capital intensity of incumbent MNOs had not been adversely affected.<sup>225</sup>

The ACCC considers that while it is theoretically possible that declaration of a roaming service could facilitate an access seeker in expanding its own network based on VHA's argument, the ACCC is not convinced that in the current case, declaration is likely to provide VHA with incentives to build out its network where it currently does not plan to do so for a number of reasons.

First, the international evidence that VHA provided does not show consistent trends on access seekers' capital expenditure in expanding their network in areas where they can access mandated roaming. In some cases, the information shows overall capital expenditure of the MNOs; in other cases, the information appears to show access providers' growth in population coverage.<sup>226</sup> As such, it does not provide meaningful evidence to support a finding as to whether declaration would promote or impede investments by access seekers. Further, the ACCC understands that international experiences of mandated roaming must be viewed in light of the types of regulatory measures that accompanied this regulation, such as the absence of regulated pricing in many cases, and the imposition of investment requirements on the access seekers. As such, international experiences do not provide a meaningful insight into the Australian context.

Second, VHA's evidence on how its investment decisions are underpinned by its roaming agreement with Optus does not demonstrate that declaration is likely to encourage VHA to invest to expand its network. VHA noted in its submission to the discussion paper that **[c-i-c]** More generally, the ACCC failed to find evidence that VHA's roaming agreement with Optus has facilitated material expansion of VHA's network. While data is limited, the ACCC has information which shows that the expansion of geographic coverage of VHA from 2014 to

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<sup>222</sup> See Richard Feasey, *The regulation of mobile wholesale markets in the rest of the world (and its relevance to the CRTC's enquiry into wholesale wireless markets in Canada)*, 15 May 2014, [15], [40]–[41].

<sup>223</sup> Telstra, Submission to draft decision, pp. 37–38.

<sup>224</sup> VHA, Submission to draft decision, Attachment C, p. 17.

<sup>225</sup> VHA, Submission to discussion paper, Part B, p. 86.

<sup>226</sup> **[c-i-c]**

2016 is minimal and it is clear that VHA has in recent years been focused on rolling out its 4G network rather than expanding its overall coverage.<sup>227</sup>

Finally, VHA advised the ACCC during the course of the inquiry that [c-i-c] The ACCC considers that this information suggests that it is more likely that the roaming agreement with Optus has created a disincentive rather than an incentive for VHA to build out its own network. While the terms of access to a regulated roaming service will likely differ from commercial terms of access under VHA's current agreement with Optus, VHA appears to expect that the regulated access price would be [c-i-c] than what it currently pays under its commercial roaming agreement.<sup>228</sup> Therefore, the ACCC considers that it is more likely that VHA's incentives to invest to expand its network would be reduced if it can access a regulated mobile roaming service than if it cannot.

For the reasons discussed above, the ACCC finds that declaration would not promote efficient investments by VHA in network infrastructure.

### 8.2.6. Impact on incentives to share infrastructure

In response to the draft decision, VHA also submitted that the ACCC did not recognise the fact that infrastructure competition is not feasible in many parts of Australia and an economically efficient outcome would be achieved by greater infrastructure sharing by roaming. VHA also noted the proposal by the three MNOs in New Zealand to jointly deploy network infrastructure in regional areas which will deliver a 25 per cent increase in mobile coverage. VHA argued that this is possible because roaming is regulated in New Zealand, therefore declaration could promote more infrastructure sharing as a more efficient way of increasing coverage.<sup>229</sup>

As discussed in Section 5, the ACCC considers that the issue as to whether parts of Australia are natural monopoly areas where infrastructure duplication is not efficient is inconclusive and, in any case, is not relevant to the question of whether declaration would promote the LTIE by having regard to whether it would promote competition in the mobile services market. Whether declaration would prevent inefficient duplication of infrastructure is a separate question, but in the present case, there is no evidence that the focus of the MNOs' ongoing investment plans is to duplicate infrastructure in areas where Telstra is currently the only MNO. The ACCC does not consider that declaration would significantly prevent any inefficient duplication of infrastructure in practice.

VHA suggested that declaration would remove disincentives to share infrastructure such that the MNOs would have an incentive to jointly deploy infrastructure to provide new coverage, similar to the example in New Zealand. The ACCC does not consider that this is the case for a number of reasons.

There is no evidence that in the absence of declaration, infrastructure sharing does not occur. The joint venture between Optus and VHA is an example where two MNOs are jointly deploying infrastructure in the absence of regulated mobile roaming. The ACCC does not consider the fact that [c-i-c] shows that infrastructure sharing is not feasible in the absence of roaming as [c-i-c]

The ACCC is not convinced by VHA's argument that regulated roaming is the reason for the three MNOs' in New Zealand to jointly deploy mobile networks in regional areas. The proposal was made as a single bid for both the New Zealand government's second phase of

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<sup>227</sup> Information from VHA's response to the ACCC information request dated 9 November 2016.

<sup>228</sup> See [c-i-c]

<sup>229</sup> VHA, Submission to draft decision, Attachment H.

Rural Broadband Initiative and the Mobile Black Spot Fund,<sup>230</sup> which offers government subsidies of NZ\$100 million and NZ\$50 million respectively. The ACCC considers that there could be various reasons why the three MNOs decided to jointly bid for all the government funds in the two programs, particularly when there are other potential bidders, such as fixed-line network operators, who are likely to be also competing for funds under the Rural Broadband Initiative. The ACCC does not consider that the circumstances under which the New Zealand MNOs proposed to jointly build infrastructure necessarily support VHA's view that regulated roaming has promoted infrastructure sharing in New Zealand.

More generally, the ACCC considers the potential for declaration to promote infrastructure sharing such as to increase coverage is likely to be limited in Australia. If it is profitable for two or three MNOs to jointly deploy infrastructure and share the profits, it is difficult to see why it would not be equally profitable for one single MNO to deploy the same infrastructure and gain the resulting profit exclusively, unless there is a capital constraint on that MNO to make that investment in the first place.

For the reasons above, the ACCC is not satisfied that declaration would lead to more infrastructure sharing and increased coverage in Australia.

### **8.2.7. Refining the scope of declaration to mitigate impact on investments**

VHA also submitted that the ACCC failed to consider refinements to the service description to address any concerns that it may have in relation to the impact of declaration on investment. For instance, VHA considered that the ACCC could consider declaring a service that excludes roaming in relation to new investment, which would stimulate regional coverage by rewarding new investment. Similarly, Dr Ritzmann noted in his report that partial declaration and access holidays can be used to preserve investment incentives.<sup>231</sup>

The ACCC considered in the discussion paper that the scope of the declared service could potentially impact how declaration would promote the LTIE. In particular, the ACCC recognised that refining the scope of declaration may mean that declaration would impact investment incentives differently. The ACCC also understands that other measures, such as access holidays, are means to mitigate the adverse impact of regulation on investment incentives, although the actual ways to implement these measures within the legislative framework needs to be considered if the ACCC is minded to explore these options.

However, in the present case, the ACCC does not consider it is necessary to consider refining the scope of declaration to address any concerns in relation to the impact of declaration on investment incentives. This is because in assessing whether declaration is likely to promote LTIE by promoting the relevant objectives, the ACCC is not satisfied that declaration would significantly promote competition in the relevant markets or is necessary for achieving any-to-any connectivity. The fact that there may be measures which may mitigate to some extent the adverse impact declaration would have on investment incentives, does not change the overall finding of whether declaration would promote the LTIE.

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<sup>230</sup> See Vodafone New Zealand media release, Vodafone, *Spark and 2Degrees submit joint proposal to enhance broadband and mobile services for rural communities*, 4 April 2017, accessed on 13 September 2017 at: <https://news.vodafone.co.nz/article/vodafone-spark-and-2degrees-submit-joint-proposal-enhance-broadband-and-mobile-services>. See also, Ministry of Business, Innovation and Employment, *Broadband and mobile programmes*, accessed on 13 September 2017 at: <http://www.mbie.govt.nz/info-services/sectors-industries/technology-communications/fast-broadband/broadband-and-mobile-programmes#rural>.

<sup>231</sup> VHA, Submission to draft decision, Attachment F, *Dr Derek Ritzmann's comments on the ACCC draft decision in its domestic mobile roaming declaration inquiry*, pp. 8–10.

If, by contrast, the ACCC found that declaration would significantly promote competition but has some concerns that it may reduce incentives to make efficient investments, it might be, in those circumstances, appropriate to consider whether the scope of the service should be refined or whether other measures could be used to mitigate any adverse impact on investments.

### 8.3. Technical feasibility of roaming

In assessing whether declaration will promote the LTIE by considering the extent to which it will encourage economically efficient use of, and investment in, telecommunications infrastructure, regard must be had to whether it would be technically feasible for mobile roaming to be supplied. In making this assessment, regard must also be had to the technology available or likely to become available, whether the costs involved in supplying mobile roaming are reasonable, and the likely effect of supplying and charging for, mobile roaming on the operation or performance of mobile services networks.<sup>232</sup>

#### 8.3.1. The ACCC considers that a roaming service is technically feasible

The ACCC's preliminary view was that the supply of a roaming service is technically feasible noting domestic and international commercial roaming arrangements that have been, or currently are, in place in Australia. The ACCC also found it is technically possible to restrict the provision of roaming to specific geographic areas.

Specifically, the ACCC considered:

- it is possible to provide roaming using the technology that is currently available
- the cost of supplying and charging for a roaming service is unlikely to be unreasonable, particularly when such cost would most likely be taken into account in setting a regulated price for the provision of a declared roaming service; and
- it is unlikely that roaming would impact on the operation and performance of the access provider's network in such a way as to render the provision of the service infeasible.

In response to the draft decision, Telstra submitted that it would not be possible to align in practice the boundaries of a declared roaming service to any of the areas considered in the draft decision for a potential declaration. This is because 3G sites, relevant for the inquiry, are grouped for management purposes into Location Areas (LACs) which generally overlap with other MNOs' coverage. Telstra submitted that altering LACs to avoid overlapping coverage with other network operators would be very difficult and would have a significant effect on network capacity and consumer experience.<sup>233</sup>

The ACCC considers that the issue raised by Telstra reflects issues relating to implementation of a roaming arrangement, which would need to be further explored if the ACCC decided to declare a roaming service. The fact that a declared roaming service may be restricted to certain geographic areas does not mean that some overlap between the MNOs' networks cannot, in practice, be maintained. Whether it is feasible to alter and optimise the LACs to avoid overlapping is another question, which different stakeholders may have different views on. It is impossible to make findings on these issues without further information and assessment in detail.

The ACCC is inclined to maintain the view that the supply of mobile roaming service is generally technically feasible as indicated by past and current domestic and international

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<sup>232</sup> CCA, section 152AB(6)(a).

<sup>233</sup> Telstra, Submission to draft decision, p. 38.

roaming agreements in Australia, and international instances of mandated roaming. The ACCC acknowledges however there may be technical issues that need to be further explored if the ACCC decided to declare a mobile roaming service in specific geographic areas in Australia. However, given the ACCC's findings in the inquiry, the ACCC does not consider it is necessary to assess and make findings on these issues in the present case.

## 9. Conclusion

The ACCC has assessed whether declaration of a domestic mobile roaming service would promote the LTIE by considering the extent to which declaration will achieve the following objectives:

- promoting competition in markets for listed services
- achieving any-to-any connectivity
- encouraging economically efficient investments in, and use of, infrastructure.

The ACCC has considered all submissions provided during the course of this public inquiry and the relevant evidence put forward by stakeholders. The ACCC makes the following findings.

Declaration would not significantly promote competition in the relevant markets, which are the wholesale mobile roaming services market and the retail mobile services market.

While declaration would improve the ability of Optus and VHA to compete with Telstra for consumers who value or require geographic coverage, Telstra would largely retain other competitive advantages unrelated to geographic coverage. Declaration is therefore unlikely to result in substantial price reductions for consumers and may give rise to the risk of the MNOs moving away from uniform national pricing which would lead to higher prices for use of services in regional and remote areas. In the longer term, declaration may distort dynamic competition by removing the incentives of the MNOs to compete on network coverage and quality or to differentiate their services.

Declaration would not achieve any-to-any connectivity.

Any-to-any connectivity is concerned with the ability of end-users of different networks to communicate with each other, and does not encompass the ability of end-users to communicate at all times anywhere. As such, any-to-any connectivity is only relevant when considering services which require or enable different networks to interconnect with each other. While the provision of a mobile roaming service technically utilises the interconnection arrangements between the MNOs, these arrangements are already in place. Therefore, declaration is not necessary to achieve any-to-any connectivity.

Declaration would not encourage economically efficient use of, or investment in, infrastructure.

Overall, declaration would not promote more efficient use of existing infrastructure as it will not promote competition and lead to more efficient prices in the retail market. On the other hand, declaration is likely to distort the incentives of Optus to make ongoing efficient investments to compete with Telstra on network quality and coverage. This would disrupt the competitive dynamics between Telstra and Optus and lead to delayed improvements in mobile networks in regional and remote areas. Declaration is unlikely to encourage or facilitate VHA to make efficient investment to expand its network.

For the reasons discussed in this report and the findings that the ACCC makes in relation to the LTIE objectives, the ACCC is not satisfied that declaration of a mobile roaming service would promote the LTIE.

## Appendix A

Part XIC of the CCA sets out a telecommunications access regime. The access regime aims to promote the LTIE of telecommunications services by promoting competition through connectivity of any user to any other user no matter whose infrastructure is utilised for that purpose. The ACCC may declare an eligible service, making it subject to regulation under the Part XIC access regime.

An eligible service is a carriage service or a service that facilitates the supply of a carriage service.<sup>234</sup> A carriage service is defined in the *Telecommunications Act 1997* as a service for carrying communications by means of guided and/or unguided electromagnetic energy.<sup>235</sup> This includes communications services, such as telephone and internet services, that are provided using fixed-lines, satellite-based facilities, mobile towers and certain radio communications links. The unconditioned local loop service is an example of a carriage service, while services providing access to facilities (such as ducts and exchange space) are examples of services that facilitate the supply of carriage services.

Once a service is declared, an access provider (typically an infrastructure operator) that supplies the declared service to itself or others must also supply the service, upon request, to service providers (or access seekers) in accordance with the standard access obligations set out in section 152AR of the CCA. The ACCC must also commence a public inquiry into making an access determination for that service. The access determination may include a broad range of terms and conditions but must specify price or a method of ascertaining price.<sup>236</sup>

### Declaration inquiries

Section 152AL(1) allows the ACCC to declare a specified eligible service if it:

- holds a public inquiry about its proposal to make a declaration
- prepares a report about the inquiry
- publishes that report within a 180 day period before any declaration is made, and
- is satisfied that the making of the declaration will promote the LTIE of carriage services or of services provided by means of carriage services.

Prior to commencing a public inquiry about a proposal to declare a service that is not already declared, the ACCC must consider whether to hold a public inquiry for an equivalent service that is supplied or capable of being supplied by a specified NBN Corporation.<sup>237</sup>

Where a service is already declared, under section 152ALA(7), the ACCC must commence an inquiry during the 18 months prior to the expiry of the declaration and determine whether to:

- Extend, revoke or vary the declaration
- Allow the declaration to expire without making a new declaration
- Allow the declaration to expire and then make a new declaration under section 152AL or

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<sup>234</sup> Where the service is supplied, or capable of being supplied, by a carrier or carriage service provider (whether to itself or other persons). CCA, subsection 152AL(1).

<sup>235</sup> *Telecommunications Act 1997*, section 7.

<sup>236</sup> CCA, sections 152BC(3) and 152BC(8).

<sup>237</sup> CCA, sections 152AL(3), 152AL(3B) and 152AL(8A).

- Extend the declaration by a period of not more than 12 months and allow the declaration to expire without making a new declaration.

The ACCC can combine two or more public inquiries about proposals to declare services.<sup>238</sup>

Declaration ensures service providers have access to the inputs they need to supply competitive communications services to end-users on terms and conditions that promote the LTIE.

In deciding whether declaring the service would promote the LTIE, under section 152 AB(2), the ACCC must have regard to the extent to which declaration is likely to result in the achievement of the following three objectives:

- promoting competition in markets for listed services (which includes carriage services and services supplied by means of carriage services)
- achieving any-to-any connectivity (the ability of end-users on a particular network to communicate with end-users on any other network) and
- encouraging the efficient use of and investment in infrastructure by which the service is supplied, or are capable of being supplied.<sup>239</sup>

Once a service is declared:

- An access provider supplying the declared service to itself or another person must also supply the service, upon request, to service providers in accordance with the standard access obligations set out in section 152AR.
- The ACCC must commence a public inquiry within 30 days regarding making an access determination for that service.<sup>240</sup> Access determinations can cover a broad range of terms and conditions but must specify price or a method of ascertaining price.<sup>241</sup>

## The ACCC's approach to the LTIE test

The test under subsection 152AL(3) of the CCA is that the ACCC is satisfied that the making of the declaration will promote the LTIE. The subsection does not require the ACCC to be satisfied to a particular standard or require there to be an overwhelming case for declaration.

Consistent with previous declaration decisions, in deciding whether declaring the service would promote the LTIE, the ACCC will have regard to:

- the promotion of competition
- achieving any-to-any connectivity and
- encouraging efficient use of, and investment in, infrastructure.

## Promoting competition

Competition is the process of rivalry between firms, where each firm is constrained in its price and output decisions by the activity of other firms. Competition benefits consumers (the

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<sup>238</sup> CCA, section 152AN.

<sup>239</sup> CCA, section 152AB(2). In determining the extent to which a particular thing is likely to result the achievement of promoting competition and encouraging the economically efficient use of, and the economically efficient investment in, the infrastructure, regard must be had to other matters listed in sections 152AB(4), (6) and (7) CCA.

<sup>240</sup> CCA, section 152BCI(1).

<sup>241</sup> CCA, sections 152BC(3) and 152BC(8).

end-users) through lower prices, the level of service quality preferred by end-users, and a greater choice of services.

Competition may be inhibited where the structure of the market gives rise to market power. Market power is the ability of a firm or firms to constrain or manipulate the supply of products from the levels and quality that would be observed in a competitive market for a significant period of time.

An access regime such as Part XIC addresses the structure of a market, limiting or reducing the sources of market power, by allowing third parties to negotiate access to certain services on reasonable terms and conditions. Competition is promoted when market structures are altered such that the exercise of market power becomes more difficult. For example, barriers to entry may have been lowered (permitting more efficient competitors to enter a market and thereby constraining the pricing behaviour of the incumbents) or because the ability of firms to raise rivals' costs is restricted.

Subsection 152AB(4) of the CCA provides that, in determining the extent to which declaration is likely to result in the objective of 'promoting competition', regard must be had (but is not limited) to the extent to which declaration will remove obstacles to end-users of listed services gaining access to listed services.

Denying service providers access to necessary wholesale services on reasonable terms is a significant obstacle to end-users gaining access to services. Declaration can remove such obstacles by facilitating the entry of service providers, which promotes competition in markets supplying end-users.

When conducting a declaration inquiry, the ACCC is required under subsection 152AB(2) of the CCA to consider whether declaration of a service is likely to promote competition in relevant markets. The ACCC's approach to assessing this objective involves defining the relevant markets and assessing the level of competition in those markets. These concepts are explained below.

### ***Identifying relevant markets***

Section 4E of the CCA provides that the term "market" means a market in Australia for the goods or services under consideration, as well as any other goods or services that are substitutable for, or otherwise competitive with, those goods or services. The ACCC's approach to market definition is discussed in the ACCC's 2008 merger guidelines.<sup>242</sup>

Section 4E of the CCA provides that a market includes any goods or services that are substitutable for, or otherwise competitive with, the goods or services under analysis. Accordingly, substitution is key to market definition. The ACCC's approach to market definition in the 2008 merger guidelines focuses on two dimensions of substitution – the product dimension and the geographic dimension.<sup>243</sup>

Substitution involves switching from one product to another in response to a change in the relative price, service or quality of the product that is the subject of the inquiry. There are two types of substitution:

- demand-side substitution, which involves customer switching, and
- supply-side substitution, which involves supplier switching.

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<sup>242</sup> ACCC, *Merger guidelines*, November 2008.

<sup>243</sup> *ibid.*, pp. 15–19.

There may be associated switching costs or difficulties which, if significant, can impede the substitutability of products.

When considering whether a product is substitutable, the ACCC may consider customer attitudes, the function or end use of the technology, past behaviours of buyers, relative price levels, and physical and technical characteristics of a product.<sup>244</sup>

Delineation of the relevant geographic markets involves the identification of the area or areas over which a carrier or carriage service provider (CSP) and its rivals currently supply, or could supply, the relevant product.

Part XIC of the CCA does not require the ACCC to precisely define the scope of the relevant markets in a declaration inquiry. The ACCC considers that it is sufficient to broadly identify the scope of the relevant market(s) likely to be affected by the declaration. Accordingly, a market definition analysis under Part XIC should be seen in the context of shedding light on how declaration would or would not promote competition and the LTIE in those markets.

### ***Assessing the state of competition***

Once the relevant markets have been defined, the next step in the analysis is to assess the state of competition in relevant markets. If competition is determined to be effective, then declaration of the eligible services is generally not likely to have an effect in terms of promoting further competition or the LTIE. In assessing the state of competition, the ACCC considers dynamic factors such as the potential for sustainable competition to emerge and the extent to which the threat of entry (or expansion by existing suppliers) constrains pricing and output decisions.

At the theoretical level, the concept of ‘perfect competition’ describes a market structure in which no producer or consumer has the market power to influence prices. Economic theory suggests that perfectly competitive markets have a large number of buyers and sellers, goods or services are perfect substitutes, all firms and consumers have complete knowledge about the pricing/output decisions of others and all firms can freely enter and exit the relevant market. In reality, these conditions are rarely found in any market or industry, even those where competition between rival firms is relatively intense.

The concept of ‘effective competition’ recognises the practical limitations of the theory of perfect competition, especially when applied to telecommunications markets. Some characteristics of effective competition are that it:

- is more than the mere threat of competition – it requires that competitors are active in the market, holding a reasonably sustainable market position<sup>245</sup>
- requires that, over the long run, prices are determined by underlying costs rather than the existence of market power
- requires that barriers to entry are sufficiently low and that the use of market power will be competed away in the long run, so that any degree of market power is only transitory
- requires that there be ‘independent rivalry in all dimensions of the price/product/service [package]’,<sup>246</sup> and

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<sup>244</sup> A useful list of information the ACCC may consider when identifying close substitutes to the relevant product is contained in the 2008 Merger Guidelines, p. 19.

<sup>245</sup> Olivier Boylaud and Biuseppe Nicoletti, *Regulation, market structure and performance in telecommunications*, OECD Economics Studies, no. 32, 2001/1.

<sup>246</sup> Re Queensland Co-operative Milling Association Ltd and Defiance Holding Ltd (1976) 25 FLR 169.

- does not preclude one party from holding a degree of market power from time to time but that power should ‘pose no significant risk to present and future competition’.<sup>247</sup>

These five factors are indicators of the extent to which competition constrains market participants to supply products and services of a given quality at prices that are based on efficient costs.

When assessing whether effective competition exists in a relevant market, the ACCC examines certain structural and behavioural factors in the market, including but not limited to:

- structural factors, including the level of concentration in the market
- the potential for the development of competition in the market including planned entry, the size of the market and the existence and height of barriers to entry, expansion or exit in the relevant market
- the dynamic characteristics of the market, including growth, innovation and product differentiation as well as changes in costs and prices over time, and
- the nature and extent of vertical integration in the market.

Our assessment of the current state of competition during this review will be used to assist us in determining whether declaration would promote the LTIE.

### ***Assessing the impact of the declaration on relevant markets***

The next step is to assess the likely effect of the proposed declaration on competition in each relevant market. As noted above, subsection 152AB(4) requires regard to be had to the extent to which a particular thing will remove obstacles to end-users gaining access to listed services.

The ACCC generally considers it helpful to apply the future with and without test as one way to determine whether the LTIE will be promoted by declaration. The test will compare the likely future situation if the service was declared and the likely future situation without the service declaration before deciding which situation will promote the LTIE.

### **Any-to-any connectivity**

The objective of any-to-any connectivity is achieved when each end-user is able to communicate with other end-users, whether or not they are connected to the same telecommunications network.<sup>248</sup>

The any-to-any connectivity requirement is particularly relevant when considering services that require interconnection between different networks. When considering services which do not require user-to-user connections (such as carriage services that are inputs to an end-to-end service or distribution services, such as the carriage of pay television), this criterion is generally less of an issue.

### **Efficient use of and investment in infrastructure**

In determining the extent to which declaration is likely to encourage the economically efficient use of, and investment in, infrastructure, subsections 152AB(6) and (7) of the CCA provide that regard must be had (but is not limited) to the technical feasibility of providing

<sup>247</sup> This is not intended to be an exhaustive list of the characteristics of effective competition.

<sup>248</sup> CCA, section 152AB(8).

and charging for the services, the legitimate commercial interests of the supplier(s) of the services, and the incentives for investment in infrastructure.

Economic efficiency has three components:

- *Productive efficiency* refers to the efficient use of resources within each firm to produce goods and services using the least cost combination of inputs.
- *Allocative efficiency* is the efficient allocation of resources across the economy to produce goods and services that are most valued by consumers.
- *Dynamic efficiency* refers to efficiencies flowing from innovation leading to the development of new services or improvements in production techniques. It also refers to the efficient deployment of resources between present and future uses so that the welfare of society is maximised over time.

Facilitating access plays an important role in ensuring that existing infrastructure is used efficiently where it is inefficient to duplicate the existing networks or network elements. An access regime must not discourage investment in networks or network elements where such investment is efficient.

Paragraph 152AB(6)(a) requires the ACCC to have regard to a number of specific matters in examining whether declaration is likely to lead to achievement of the objective in paragraph 152AB(2)(e).

### ***Technical feasibility***

In assessing the technical feasibility of supplying and charging for a service, the ACCC considers:

- the technology that is in use, available or likely to become available
- whether the costs that would be involved are reasonable or likely to become reasonable, and
- the effects or likely effects of supplying and charging for the service on the operation or performance of telecommunications networks.

The ACCC assesses the technical feasibility of supplying the relevant service by examining the access provider's ability to provide the service and considering experiences in other jurisdictions. The ACCC will look to an access provider to assess whether it is technically feasible to supply the relevant service, and will also consider experiences in other jurisdictions.

### ***The legitimate commercial interests of the supplier***

An infrastructure operator's legitimate commercial interests relate to its obligations to the owners of the firm, including the need to recover the costs of providing services and to earn a normal commercial return on the investment in infrastructure. Allowing for a normal commercial return on investment provides an appropriate incentive for the access provider to maintain, improve and invest in the efficient provision of the service.

Paragraph 152AB(6)(b) of the CCA also requires the ACCC to have regard to whether providing access may affect the infrastructure operator's ability to exploit economies of scale and scope. Economies of scale arise from a production process in which the average (or per unit) cost of production decreases as the firm's output increases. Economies of scope arise

where it is less costly for one firm to produce two (or more) products than it is for two (or more) firms to each separately produce the relevant products.

Declaration may be more likely to impact on an infrastructure operator's ability to exploit economies of scope than economies of scale. A limit in the capacity available to the owner may constrain the number of services that the owner is able to provide using the infrastructure and thus prevent the realisation of economies of scope associated with the production of multiple services. In contrast, economies of scale derive from the use of the capacity of the network and can be realised regardless of whether that capacity is being used by the owner or by other carriers or carriage service providers. The ACCC assesses the effects on an infrastructure operator's ability to exploit both economies of scale and scope on a case-by-case basis.

### ***Incentives for investment***

Infrastructure operators should have the incentive to invest efficiently in the infrastructure by which the services are supplied (or are capable, or likely to become capable, of being supplied). In determining incentives for investment, regard must be had (but is not limited) to the risks involved in making the investment.<sup>249</sup>

Access regulation may promote efficient investment in infrastructure by avoiding the need for access seekers to duplicate existing infrastructure where duplication would be inefficient. It reduces the barriers to entry for competing providers of services to end-users and promotes efficient investments by these service providers in related equipment required to provide services to end-users.

Firms should have the incentive to invest efficiently in the infrastructure by which the services are supplied (or are capable, or are likely to become capable, of being supplied).

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<sup>249</sup> CCA, sections 152AB(7A) and (7B).