ACCC COMMUNICATIONS MARKET STUDY ISSUES PAPER

SUBMISSION BY
VODAFONE HUTCHISON AUSTRALIA

OCTOBER 2016

Contents

Executive summary

VHA Hutchison Australia Pty Limited (VHA) welcomes the Australian Competition and Consumer Commission's (ACCC's) consultation on its Communications Market Study Issues Paper. VHA considers that now is an opportune time for the ACCC to explore, consider and recommend solutions to problems which undermine competition and efficiency in communications markets.

The communications market is well understood to be not only a high priority for consumers, but also a critical enabler of productivity, innovation and efficiency throughout the entire economy. The efficiency of the communications market is key to the ability of the traditional sectors of the Australian economy to compete internationally including mining, tourism and agriculture. Longer-term, Australia will only be able to deliver on its stated ambition of a transition from a resources-driven economy to an innovative, high-value services economy with world-class and efficient communications inputs. If these are not available, and available beyond the major metropolitan areas, the communications market will inevitably quickly become a hand-brake on Australia's social and economic development.

Study purpose

VHA's view is that the ACCC's study should first identify market performance problems in wholesale or retail communications markets and then identify the underlying causes of the problems, whether these stem from technology developments, market structure or conduct of firms with substantial market power. The final task of recommending solutions might involve changes to future regulation within the ACCC's mandate, but could also involve solutions that are within the ambit of other regulators (for example, the ACMA), policy-makers or actions requiring broader government review (such as structural reform). Market studies give the ACCC appropriate flexibility to highlight problems and solutions, even if it cannot directly solve them by itself.

We note that the ACCC is concurrently conducting an inquiry into whether to declare a domestic roaming service so we have not specifically addressed this issue in this submission. We also note that we have not provided detailed submissions and evidence on each area of focus which we raise as this is a highly resource-intensive process. Should the ACCC wish to further understand or explore specific areas of concern, we assume that there will be further opportunities to provide more detailed evidence and recommendations on specific issues.

The ACCC's approach to competition analysis

Developments in the communications market require greater emphasis and precision in the ACCC's approach to market analysis. Two examples are (a) the substantial geographic differences in competition, and (b) increasing fixed to mobile substitution. VHA recognises that a case-by-case approach to market analysis is invariably required. However, VHA is concerned that the ACCC's current approach to market analysis takes insufficient account of geographic variations in competition and is not correctly accounting for increasing fixed to mobile substitution. These are clearly fundamental dynamics in the Australian

communications market. The ACCC should therefore provide further guidance and a clear framework for how it sees these trends affecting its analysis of markets, and how the ACCC will adapt its approach over time if these trends continue to have such a significant influence on the market.

Competition in markets for mobile services

Competitive conditions for mobile services varies markedly across Australia. Competition is intense in metropolitan areas however economies of density, scope and scale hinder widespread deployment of competitive infrastructure outside of these areas. While geographic coverage can to an extent be a legitimate competitive tool, the extraordinary extent of the disparities in coverage in Australia, and the extent to which those disparities have been exacerbated by policy, regulation and subsidies, as well as the unfavourable outcomes experienced by consumers demands serious attention. A combination of regulatory and policy levers should be used by the ACCC and governments to remove substantial barriers to competition and economic efficiency in the long-term interests of consumers. The ACCC's particular focus here should be on promoting competition through network build where it is efficient, but also recognising where Australia's extreme geography and population distribution bring a tendency toward natural monopoly and dealing with this through appropriate regulated access for DTCS and facilities, and network sharing where it is not.

Ensuring appropriate and consistent scrutiny and review of key market inputs, especially spectrum

The ACCC should examine the current approach to the consideration of the competition implications of allocation of key inputs, particularly spectrum. While we recognise that the ACCC's role in competition limits is restricted to providing recommendations to government, the ACCC's recommendations are highly influential. Spectrum is a critical and increasingly important pre-condition to competition in wireless markets. However, the ACCC's consideration of competition limits takes place in a sporadic and relatively unstructured environment. Decisions on issues of far smaller economic importance, such as reviews of relatively uncontroversial small to medium sized mergers, take place within a highly structured and rigorous framework. Inquiries into the declaration of services also take place within a highly structured framework and with great transparency as all submissions, draft decisions and submissions on draft decisions are published as the process proceeds. However, the process for setting competition limits is undertaken without the benefit of any equivalent of the Merger Guidelines or Part XIC Guidelines, and industry is usually only provided with one opportunity for comment, with submissions. There should be a broadly proportional relationship between the importance of a decision and the degree of guidance, structure and transparency around that decision. Spectrum-related recommendations are of fundamental significance to the level of competition and efficiency in the communications market, but are made without the benefit of the structure and transparency which accompanies comparable or even potentially less significant decisions.

Opaque subsidies and competitive distortions driven by policy and regulation

The Australian communications market continues to be characterised by a surprising range of internal and external subsidies and other competitive distortions. These range from the $300 million a year Universal Service Obligation (USO) to the number tax regime which imposes tens of millions of dollars of tax on mobile numbers but imposes no tax whatsoever on geographic (fixed) numbers, to state-based direct subsidies for mobile network build which are structured in a manner which make competition for these subsidies impossible. There are substantial payments which are being made to the incumbent operator Telstra for its copper network, HFC network, duct access, and construction and maintenance of the NBN. In many countries such subsidy systems and competitive distortions are prevented per se by State Aid rules (as in the European Union) or at least subjected to rigorous and transparent cost-benefit and competition analyses. While the Productivity Commission is soon to provide recommendations on the USO, the Communications Market Study is an entirely appropriate context within which the ACCC should at least compile a complete list of the numerous subsidies and distortions which could be undermining competition and the long-term interests of end-users and provide recommendations for the appropriate way to ensure that these distortions are minimised in the long term.

The NBN and competition in markets for high speed broadband services

Australia has one of the most concentrated fixed line markets and the highest fixed voiced prices in the developed world. This enduring problem precipitated the development of the NBN, which has the potential to level the competitive playing field between incumbents and new entrants. However, the fixed sector has become more, rather than less, concentrated in recent times and competitors more integrated, resulting in decreasing wholesale competition. The long term benefit to end users of this trend is unclear. Equally, the development of infrastructure competition is being hindered by unclear policies and commercial arrangements applying to NBN Co. With this in mind, the ACCC should take a holistic view of the impact of NBN Co.'s commercial and regulatory arrangements to promote the best outcome for end-users. The ACCC should also consider how other policy settings are impinging on market performance. For example, government subsidies and excessive regulation of actual or potential wholesale competitors to the NBN generally advantages NBN Co.'s relative competitive position.

Other regulatory issues

VHA supports the ACCC further examining interconnection arrangements for internet peering and mobile networks. The internet peering arrangements were mandated many years ago and lack any flexibility to address changes in the market dynamics. Both lack an appropriate foundation for encouraging commercial agreements between networks that would promote consumer interests.

There are several areas and issues which have not been addressed to date which are likely to be critical to the longer-term development of the communications market. We encourage the ACCC therefore to consider several other issues. Dark fibre, for example, is a pre-requisite for the ability of the sector to manage exponentially growing data demand and traffic and a service which has been regulated in an

increasing number of comparable economies such as the UK, Sweden and the Netherlands. The migration from 4G to exponentially higher capacity 5G mobile networks will not be possible without the certainty, cost control and ability for access seekers (rather than access provider/s) to manage their dynamic and innovative technology requirements. Dark fibre is not widely available in the Australian market, and the only potential supplier of dark fibre in regional Australia has not made it publicly available.

We also believe that the ACCC (and potentially government) should consider the effectiveness of the telecommunications-specific competition regime (Parts XIB and XIC). While XIB is subject to a separate consultation by Treasury, that consultation focuses on the substantive rules in XIB and s46. Since XIB contemplates and automatically incorporates changes to key sections of the *Competition and Consumer Act 2010* (CCA) including s46, we do not believe that the contemplated changes to s46 require any amendment of XIB. However, that consultation process does not consider the use (or lack thereof) of the specific enforcement powers in Part XIB. Given that no Competition Notices have been issued in a decade, we believe that it is appropriate for the ACCC to consider whether it could be the case that no carrier or carriage service provider has engaged in anti-competitive conduct for a decade, or whether there needs to be an examination of the ACCC's approach to enforcement. Similarly, Part XIC cannot be considered an effective access regime when it enables the incumbent to effectively evade or substantially reduce the impact of Final Access Determinations through contractual artifices and gaming. This substantially undermines the extensive resources dedicated by the ACCC and industry to ensuring appropriate regulation of critical bottlenecks.

A final area of investigation is the facilities access regime. While this regime has been relatively successful in preventing outright refusals to supply by infrastructure owners, in many cases VHA's experience is that commercial arrangements are strongly biased towards vertically-integrated infrastructure owners. This bias can arise at many stages in the negotiation, including in the design of facilities themselves (so as to hinder effective sharing). Vertically integrated firms which own more physical facilities also have an incentive to raise the wholesale prices of upstream inputs such as co-location in order to slow or minimise the impact of downstream competition. The ACCC should further consider a model that creates more certainty over access terms and addresses incentives to hinder access.

1 Introduction

1.1 Context for the market study

The ACCC has announced a market study in the communications sector in light of a changing communications landscape. In particular, the ACCC has identified that its study will allow it to consider a wide range of inter-related developments that have been raised by the industry and go to the effective functioning of the market.

The ACCC indicates that it will use the study to inform how it will undertake its role under Part XIB and XIC of the *Competition and Consumer Act 2010* (CCA) to facilitate markets that provide consumers with a choice of products at a price and quality that meet their needs and circumstances.

The study description emphasises the broad nature of the review, with coverage of fixed and mobile networks, core and aggregation network services and over-the-top (OTT) services. A further focus appears to be the consolidation and "structural change" that has occurred in the sector, and the impact of these on competition and efficiency. A final area of focus is retail competition, and whether the transparency and comparability of consumer product information and costs of switching service provider may be impeding competitive outcomes.

1.2 This submission

VHA's submission focuses on the key issues raised in the ACCC's Issues Paper. Its purpose is to assist the ACCC in focusing its attention on areas where current market performance could be improved. This will focus on areas where regulation has an important role in determining market structure or conduct; however, as we will discuss, it will not be limited to those areas which are specifically subject to regulation by the ACCC.

2 The scope and intent of the market study

The purpose of the study should be to identify barriers to effective competition and the achievement of economic efficiency and more broadly the long-term interests of end-users. The ACCC should make recommendations on reducing the impact of these barriers, even if the ACCC cannot act on the recommendations.

According to the ACCC, the purpose of the study is to "ensure that the implications of developments in the communications sector are well understood, to identify issues that prevent relevant markets from delivering economically efficient and competitive outcomes in the interests of consumers, and to identify options, if required, to address these issues."

The ACCC notes in a number of places that the intent of this study is to assess whether changes in communications markets have implications for the extent of regulation. For example, under 3.3 Objectives of the Study, the ACCC states that one of its objectives is to:

> *Make findings and identify options that would better place us to address material issues, including in identifying any areas that will more likely require more or less focus over the next five years to ensure* ***regulation is responsive*** *to the requirements of the changing communications landscape. [emphasis added]*

In our view, this is a limiting role for a market study. VHA's view is that the ACCC's market study should have three objectives:

i) To identify market performance problems in wholesale or retail communications markets (if any). Performance problems might be any of high prices, excess profits or poor service quality.

ii) To identify the underlying causes of the problems, whether these be technological, structural or conduct-related.

iii) To identify whether there are ways to promote competition to address the performance problems, but only where this is consistent with the promotion of economic efficiency (for example, it does not make sense to promote infrastructure competition in a natural monopoly market). If a market is a natural monopoly, the market study ought to identify ways to promote competition in downstream markets.

The third task might involve changes to future regulation within the ACCC's mandate. However, it is clear that it might also involve solutions that are within the ambit of other regulators (for example, the ACMA) and policy-makers or are actions requiring broader government action (such as structural reform). It would be reasonable for the ACCC to highlight the problems and solutions, even if it cannot directly solve them. As we shall discuss, problems relating to spectrum availability and government funding of services are likely to be critical to competitive outcomes in both mobile and fixed services.

We consider that this broader approach has been taken by Ofcom in its strategic reviews of communication, which seems similar in purpose to the ACCC's study (see Box 1).

Box 1: Ofcom's Strategic Reviews of Telecommunications markets

A relevant touchstone for the ACCC's market study is Ofcom's Strategic Reviews. As Ofcom has noted about its reviews (two have been undertaken):

> *This review will offer the space for policy makers and stakeholders to think more broadly and longer term, complementary to but without some of the constraints associated with the European Framework's defined processes.*

The reference to the European Framework is a comment on the rigid "market review" process for the imposition of regulatory remedies. This is analogous to the Part XIC declaration process.

Importantly, and as the ACCC is no doubt aware, the recommendations of Ofcom in 2005 focused heavily on the vertical separation of BT and what model of separation should be pursued. This could not be implemented by Ofcom, but could only be referred by Ofcom for further consideration by the Competition Commission (now CMA). Ofcom ended up accepting undertakings from BT to operationally separate in lieu of a reference by Ofcom to the Competition Commission.

Source: Ofcom

Finally, we also recognise that the ACCC will "take into account" issues that are being considered in concurrent inquiries. This includes the ACCC's inquiry into whether to declare a domestic roaming service, the Productivity Commission's inquiry into the future direction of the USO and the Spectrum Review. We concur that this is an appropriate approach – if the best solutions are to be found in these reviews, or may come out of these reviews, then this should be taken into account in the ACCC's market study.

3 The ACCC's approach to analysis of competition in communications markets

Market changes are putting a greater emphasis on the ACCC's approach to market analysis. Two examples are geographic differences in competition and increasing fixed and mobile substitution. The ACCC should provide further guidance as to how it sees these trends affecting its analysis of markets, recognising that a case-by-case approach is invariably required.

3.1 Market analysis

Market analysis – defined as the activities of market definition and the assessment of market power (or its anti-thesis, effective competition) – is an important task for the ACCC in fulfilling a number of its regulatory and advisory roles.

For example, any application of the LTIE test has a sub-criterion the "promotion of competition". Although the ACCC does not need to reach a definitive view on market definition and analysis in the context of Part XIC, the ACCC rightly considers this question in sufficient detail to take a view as to the impact of declaration on this criterion.

Further, the ACCC also provides advice to the Department of Communications and the Arts on competition limits in spectrum allocation procedures such as auctions. Providing advice on these matters requires an understanding of how competition in a market or markets is likely to be affected by allowing disproportionate access to spectrum by one or more potential buyers.

A significant issue for this study is the ACCC's approach to competition in mobile markets, both in relation to spectrum competition limits and when considering fixed to mobile substitution.

3.2 Market analysis relating to spectrum competition limits

Over the years, the ACCC has had to deal with a number of issues where competition conditions in different parts of Australia have varied – including in relation to the declaration of wholesale ADSL services and applications for exemption from WLR/LCS obligations. This has often raised difficult issues of how to take account of variations in competitive conditions in market definition and then, ultimately, whether to take account of differences within or across markets by adopting a different regulatory approach.

A more recent focus for the ACCC has been competition in markets for mobile services. As we argue in the following section of this submission, there are important technological and structural differences between competition in regional and metropolitan areas – although the two areas cannot be considered entirely independent due to the mobility of the service which is its defining characteristic. A strong or dominant market position in one geographical area supports a strong or dominant market position in the other. We note that while analysis focuses on mobile services, the disparity in competition outcomes between metropolitan and regional areas is also a feature of the fixed services market.

3.3 Market analysis and fixed to mobile substitution

A further market analysis challenge arises in the context of increasing substitution between mobile and fixed services. Although not a new issue, up to this point it has had little impact on the way the ACCC regulates.

There is no question that the trend towards greater use of mobile services (based on the value of mobility and lower prices for these services) is reflective of substitution. As the ACCC notes, the evidence of substitution is stronger for voice calls than for broadband services.

3.3.1 Asking the right substitution questions

The ACCC notes two counterpoints to the substitution dynamic: that certain groups of users are dependent on fixed lines for voice services, and that although 21 per cent of adult Australians used mobile-only services for internet usage, 97 per cent of data is still downloaded over fixed lines.

We accept that there is rarely precise quantitative data by which to make decisions about market definition, and the data cited is no exception. In this circumstance, it is more appropriate to focus on the constraints caused by substitution at the margin, and not total consumption or the 'average customer'. For example, it is almost certainly true that there will be a significant number of customers for whom mobile services are not a reasonable substitute, and so a rise in fixed line prices will have no or little impact on their consumption decisions. However, what should be the focus of attention is the effect of a price rise at the margin for users of fixed line networks.

The test for voice calls is whether a sufficient number of fixed line users will shift to using mobile calls in response to a price rise. While many will not, critical loss analysis suggests that only a small number need to substitute for a price rise to be unprofitable, particularly for high margin services. This also requires an analysis of the ability of firms to price discriminate between customers that will not switch and those that will.

For data services, if there are customers that use relatively little data, then the price rise on fixed line networks may be sufficient to induce substitution to mobile networks. The fact that 21 per cent appear to have already done so suggests switching is established and this cannot be countered by quoting information on total download volumes being asymmetrically in favour of fixed networks (i.e. 97 per cent of data downloaded is over fixed line networks). This is because the total downloaded does not tell us anything about the distribution of downloads – these might be concentrated among a small group of fixed users. Again, it is the marginal question that is relevant.

3.3.2 Implications of fixed to mobile substitution

The immediate implications of fixed to mobile substitution are not obvious. One implication might be that the burdens of regulation could be lessened in some areas however the fact that Telstra is the largest supplier of mobile as well as fixed services clearly remains significant.

Another implication is the possibility that increasing substitution causes convergence, so that all providers supply both fixed and mobile services. Recently, VHA has indicated that it will commence supply of fixed line services using the NBN. Equally, TPG has been an active acquirer of spectrum although there is no public indication that it is actually using this spectrum.

The implications of fixed to mobile substitution also need to be considered in light of differences in different regions within Australia and government policies – such as the NBN and the USO – that have tended to favour fixed line operators. Of particular importance to a mobile-only operator is that regulation and policy should avoid distorting consumer choices by favouring particular suppliers, or classes of suppliers. Unfortunately, in Australia there seems to have been a strong bias in favour of fixed lines even though our geography seems particularly ill-equipped for cost effective supply of these services.

4 Competition in markets for mobile voice and broadband services

Competitive conditions for mobile services vary markedly across Australia. While competition is intense in metropolitan areas, economies of density, scope and scale hinder widespread deployment of infrastructure outside of these areas. While geographic coverage can be used as a competitive tool, it is far from obvious that the outcomes experienced (i.e. a monopoly in certain regional areas) is a favourable outcome for consumers. Policy and regulatory levers could be used to improve competition and economic efficiency – and the interests of consumers.

4.1 The metro – regional divide

By most measures, mobile markets in Australia have delivered substantial material benefits to consumers. For example, in relation to mobile broadband, the ACMA has said:

> *ACMA research, 'The economic impacts of mobile broadband on the Australian economy, from 2006 to 2013', brings home the realisation that the 'connectedness' of mobile broadband has had a major impact on Australia's productivity and overall economic growth. It led to a $33.8 billion increase in economic activity (measured in terms of Gross Domestic Product) in 2013—that's a 2.28 per cent contribution to Australia's total GDP.*

The aggregate picture, however, masks the divide in Australia between those areas of Australia where there is scope for the competitive deployment of latest-generation, high quality services and those where there is not.

VHA's belief, supported by its financial and economic analysis of network deployment, is that Telstra has unmatchable advantages in supplying mobile telephony and broadband services in regional Australia, resulting in barriers to market entry that VHA and other prospective entrants simply cannot surmount. In essence, the mobile market in regional Australia is not fully contestable.

This lack of contestability has important consequences for consumers in these areas, who are denied the full benefits of competition. Further, because this lack of contestability affects an inherently mobile and networked service, Telstra's market dominance has substantial spill-over impacts that distort competition not only in other regional areas, where there is existing infrastructure competition between the mobile operators, but also in major metro markets where some consumers appear to place substantial value on mobile coverage in regional areas even if they do not actually use that coverage on a regular basis.

4.2 Network deployment in regional areas

4.2.1 Economies of scope, scale and density in mobile networks

There are material economies of scope, scale and/or density in supplying mobile services. These potential sources of economies can be defined as follows:

- Economies of **scope** relate to the behaviour of costs as two or more distinct goods are produced. For example, there may be scope economies between mobile services and fixed line services if the networks used to supply the services share infrastructure. This is clearly the case with fixed and mobile networks in regional Australia since both share the core network and transmission network and, in many cases, exchanges and other fixed premises are used to supply mobile network inputs such as co-location of mobile radio access network infrastructure. Similarly, distribution networks, staff, and investment in brand and marketing are often costs which can be shared between fixed and mobile businesses.

- Economies of **scale** relate to the behaviour of costs as output expands as the network size increases. For example, in mobile networks, scale economies exist if the additional costs of adding a subscriber or increasing usage fall as more subscribers are added or there is more usage of the network. For example, mobile networks feature substantial fixed costs for core networks and national spectrum licences, both these costs are characterised by economies of scale.

- Economies of **density** relate to the behaviour of costs as output expands over a given sized network. For mobile networks, economies of density exist if adding a subscriber within a given network footprint becomes cheaper as more subscribers are added. Mobile towers are an example of infrastructure characterised by economies of density.

Without such economies, the source of any advantage will be temporary and able to be overcome by competitors that are equally efficient in other ways.

This is not to deny that there are other important barriers to VHA and others competing effectively in a particular geographic area. As we go on to discuss, other market features that are not related to technical economies are also important, including first mover advantages and sunk costs that produce consumer inertia and barriers to switching. Poorly targeted public subsidies for regional infrastructure have also exacerbated the situation.

4.3 The importance of economies of scope, scale and density in Australia's mobile networks

Given the important link between population density and the ability to exhaust economies of density, and given the very low population density in many areas of Australia compared to other developed countries,

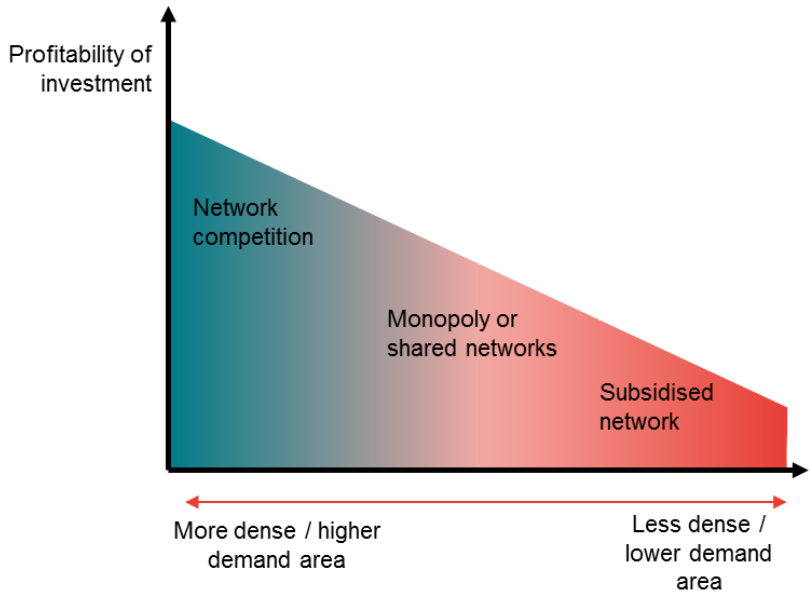
we expect that having areas of the mobile network characterised by natural monopoly is more prevalent in Australia than in most other countries.

Despite this, we do see similar issues arise in certain areas of other countries. This relationship between the structure of the costs of mobile networks and the economics of extending mobile networks into new areas, particularly new areas with low population density, is discussed in a report by Frontier Economics Europe for the GSMA:

A large proportion of costs in mobile access networks are fixed with respect to the level of traffic, but variable with respect to the area covered... Increasing coverage requires additional base stations to be deployed, as the area covered by each base station is largely fixed by the propagation characteristics of the spectrum and the technical requirements of the technology used. In marginal areas with relatively low population density, the minimum base station configuration required to provide services will be sufficient to serve all traffic generated within the associated coverage area. In these areas, costs will be invariant for small increases in traffic from current levels.

In a stylised way, these outcomes may be represented as follows in Figure 1. For a given geographic area, total demand is closely correlated with population density. Where demand and population density are highest, average costs are lower and profitability is sufficient to allow more than one network. Where demand and population density are low, investment may be either unprofitable without subsidies, or there may be sufficient demand for a monopoly or shared network.

Figure 1: Relationship between investment and demand in a given geographic region



4.3.1 Economies can be exhausted in metropolitan areas, but not in many regional areas

In metropolitan areas the size of the market within a given geographic area is sufficiently large to support a number of competing mobile networks. Each of these can operate at a point of constant returns to scale (or, to put this another way, each of the competing mobile networks can achieve the minimum efficient scale). For this reason, we see these metropolitan areas characterised by effective competition between competing networks.

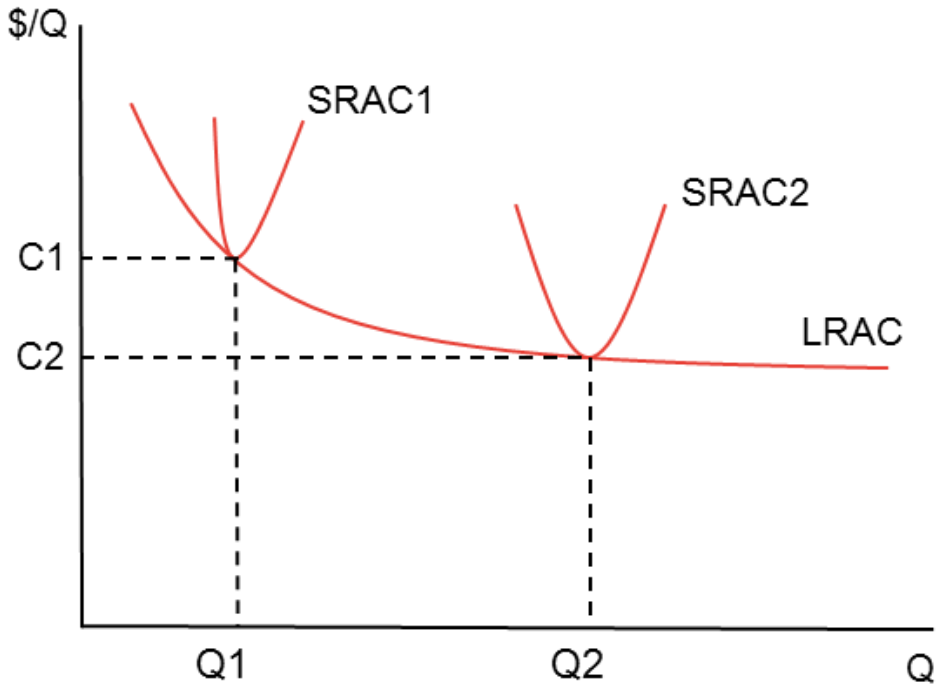
However, in many regional areas the size of the market is not large enough to support more than one competing mobile network each operating at a point of constant returns to scale. In these areas, with increasing returns available, it is not possible for more than one mobile networks to operate at minimum efficient scale.

For this reason, we see many regional areas characterised by supply at minimum efficient scale by one supplier (usually Telstra), and other networks at sub-scale or no supply.

The key distinction between areas in which competing firms can achieve minimum efficient scale, and areas in which they cannot, is population density. The less population density, the more sites are needed to cover a certain population. Further, it seems that the relevant economies that prevent competing firms from achieving minimum efficient scale in many regional areas in Australia are economies of density. In an area with a low population density, a single mobile network may have sufficient capacity to meet all actual and potential demand for mobile services in the area. Where there are large fixed coverage costs associated with building a mobile network, this would mean that long-run average costs would fall as output expands over the single mobile network, while long-run average costs would be higher if there were two or three mobile networks competing for customers.

In a stylised way, this appears as in the following figure. Suppose that there were three firms producing output in a market, each had incurred fixed coverage costs, and that each was equally efficient. With a long run average cost curve as illustrated, then even efficient firms producing one third of the output (i.e. assuming that Q1 = Q2 divided by three) would be less efficient than having a single firm produce Q2.

Figure 2: (Natural) Monopoly in areas of low population density



Source: Frontier Economics

This also demonstrates that an entrant, knowing that it could only achieve an average cost of C1, will not recover its costs if the price set by the incumbent (producing Q2) is between C2 and C1. If public subsidies are introduced to this model, the subsidies have the effect of lowering the LRAC for the recipient (but not for other participants in the market), widening the gap between C1 and C2. In other words, public subsidies for natural monopoly infrastructure have the effect of cementing its natural monopoly characteristics.

4.3.2 Mobile services in regional and rural areas of Australia tend to natural monopoly

If our characterisation of the cost structure of mobile networks in regional areas of Australia is correct, this suggests that mobile networks in these areas can be characterised as a natural monopoly.

Where the economies are such that adding customers to a single existing network results in decreasing long-run average costs, it is hard to see how another mobile network operator can enter and compete effectively with the incumbent, Telstra. Recognising this, and the likelihood of failing to earn a reasonable return on capital, even mobile networks that successfully compete in other areas are unlikely to invest in building a network in these areas on its own merits. The only reason why these networks are likely to have any presence in these areas is due to interactions with other markets; that is, if only small amounts of infrastructure are built by competing firms, these might be recovered from users in metropolitan areas.

If our characterisation of the cost structure of mobile networks in regional areas of Australia is not correct, we would have expected that competition between networks would already have emerged. If the market

were sufficiently large in these areas, so that the population density is sufficiently large, we would have expected to see more effective coverage-based competition between mobile networks evolve in these areas, with competing networks each achieving the available economies, as has happened in other areas of Australia.

We also note that there is some support for our interpretation in observed patterns of competition in international markets. For instance, a report by Frontier Economics Europe for the GSMA notes that network operators can generally be expected to compete to provide faster or more extensive coverage, and so will have incentives to cover an area where it is profitable to do so. However, the report notes that there can be regional differences in patterns of competition and that there can be first mover advantages:

> *... when it is not profitable for multiple operators to roll out in a particular area, it may nevertheless be possible for one network to gain a 'first mover' advantage and capture the entire retail demand in the area. Once they have done so, they can be confident that it would be unprofitable for any other operator to follow, at least in the short-term. This is consistent with the evidence from countries with network competition, where there is often a significant coverage gap between the first and second largest operator (indicating that there is a first mover advantage and some areas are only covered by one network), but this gap can decrease over time as more areas become economically viable for multiple mobile networks.*[1]

4.3.3 First mover advantages are not a result of efficiency

Telstra's basic first mover advantage in regional mobile markets stems from both its privileged entry position and its incumbency in fixed line markets, which create economies of scope, as well as substantial cross-subsidies and subsidies. This kind of advantage is recognised in the literature, see for example Muck & Heimesoff (2012):

> *Besides economies of scale, economies of scope can be a second reason for pioneers' cost advantage over followers. In many countries the incumbent fixed-line operator first entered the market for mobile telecommunications (Jakopin and Klein, 2012; see Gruber 2005: 15-21 for some examples). In this case, the mobile network operator can use part of the infrastructure of its parent fixed-line operator, e.g. leased lines or buildings on which transmitters can be built, which will result in significantly lower network operation costs (Haucap and Dewenter, 2006). Furthermore, the mobile subsidiary of a fixed-line*

[1] ibid., page 28.

> *incumbent can also capitalize on the existing distribution network and established brand name of its parent.*[2]

This has provided Telstra with an advantage in that it has not had to invest in the same sunk costs as competitors. For Telstra, its transmission costs in regional areas were already sunk and its relevant incremental costs are much lower than those faced by its competitors.

In addition, Telstra has added to these initial advantages by advertising and promoting its coverage advantages (i.e. incurring endogenous sunk costs) and raising barriers to entry (for example, through high transmission prices). These investments have the effect of increasing customer inertia, and further increase the costs to compete with Telstra. This means the cost of market entry are commensurately greater, while the ability to win a sufficient market share to justify the business case is commensurately reduced.

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

The USO subsidies have a particularly pernicious effect on competition. The USO subsidies ostensibly support Telstra's fixed line infrastructure, and subsidies for those investments, which even if set at an efficient level of cost recovery (which has never been conclusively established) subsidise substantial network elements that support its mobile network investment. Moreover, a large portion of the funding for the USO is raised through a levy on Telstra's competitors – that is, Telstra's competitors are taxed enabling Telstra to socialise the cost of its infrastructure while privatising the "supernormal" benefits it reaps from that infrastructure.

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

- Telstra has captured economies of scale, scope and density in its mobile networks in rural and regional areas to a greater degree than competitors.

---

[2] Johannes Muck & Ulrich Heimeshoff, First Mover Advantages in Mobile Telecommunications: Evidence from OECD Countries, October 2012, DICE Discussion Paper, No. 71., p. 11.

- Governments have tended to reinforce this initial dominance by awarding funding to Telstra to further extend and deepen its network coverage[3].

Telstra's ability to raise the price of upstream inputs and therefore barriers to entry for competitors (for example through high regional transmission pricing) have further exacerbated these dynamics. Regulation has been largely ineffective in addressing the advantages of Telstra in either its transmission networks, or through enforcing policies to extinguish or mitigate coverage advantages. While the ACCC has reduced the price of regional transmission by up to 78 per cent, its decision demonstrates that Telstra's competitors were paying five times the fair price for transmission services, foreclosing competition in areas where it otherwise might occur and, in places where competitors did take a service, effectively further subsidising Telstra's regional mobile network investment.

4.4 First mover and scope advantages will continue to provide Telstra with advantages in extending its network

Telstra's strong position in regional mobile markets gives it a material cost advantage. Will these advantages be reduced over time in the absence of any intervention? In VHA's view, the first mover advantages will mitigate against self-correction, and will in fact likely reinforce this dominance.

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

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

[3] VHA's submission to the Regional Telecommunications Review 2015 provides a number of examples. See Vodafone, Submission to the Regional Telecommunications Review 2015, July 2015.

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

In conclusion, there is credible evidence of market failure in Australia's mobile markets in the Telstra-only mobile network areas. This market failure is caused by the inability of the mobile market in these areas to sustain more than one mobile infrastructure competitor. These regional markets have natural monopoly characteristics, or, at the least, it is uneconomic for competitors to duplicate infrastructure.

4.5 Invigorating competition in regional areas

There is no panacea to increase the competitiveness of markets in regional areas. However, a range of solutions could potentially deliver benefits that exceed any associated costs. We briefly describe these solutions and areas for further consideration.

4.5.1 Network sharing

Given Australia's large land mass, small population and relatively low urban density, in many places it only makes sense to build one mobile network. However, this does not mean that consumers cannot receive the benefits of competition as multiple operators can compete on the basis of one mobile network.

There are many benefits to be gained from the greater sharing of mobile networks. Indeed, it is VHA's international experience that network sharing in regional areas is increasingly the norm rather than the exception. Network sharing can take several forms. These range from sharing passive elements such as mobile towers, transmission and power to active sharing which includes the radio access network and even spectrum. The sharing of infrastructure effectively represents a reduction in rollout costs, and in low-demand areas this cost saving may be the difference between operators deciding to roll out and not rolling out.

Previous work from Frontier Economics and the GSMA has noted that, in many countries around the world, operators have voluntarily entered into commercially negotiated agreements to share certain parts of their network infrastructure:

> *According to a 2011 survey among European regulators, in the vast majority of countries, operators have engaged in such agreements voluntarily. In some countries such as the Netherlands, France and Lithuania, network sharing is mandated. In other countries like Portugal, Italy, Finland and Switzerland and also outside of Europe like India and Pakistan, network sharing is encouraged by the authorities by means of including infrastructure sharing as one of the evaluation criteria in bid submissions, offering legal*

> *incentives and simplifying civil work procedures as well as publishing best practice guidelines and recommendations*[4].

Network sharing can create material savings. For example, Frontier Economics analysed N4M ("Net4Mobility") which is a joint venture between Telenor and Tele2. The two operators started sharing their 2G and 4G network and spectrum pool in 2008. The network sharing agreement led to CAPEX savings of up to 46 per cent and OPEX savings up to 29 per cent.

Frontier's report concluded that:

> *Network sharing is a well-tested model which is used in many countries around the world. There is a clear commercial rationale for operators to voluntarily enter such agreements which is to save costs. To the extent that network sharing reduces the cost of rolling out, it can be pivotal in the decision of whether or not to cover remote areas. Moreover, if the right safeguards are in place, competition will not be affected negatively and competitive neutrality will be maintained. Regulating authorities should therefore take a positive stance on network sharing and encourage operators to engage in such agreements as it has the potential to provide greater mobile coverage.*[5]

Network sharing can be viewed as a means for two or more firms to enter a market that would otherwise only be able to support one mobile network. Network sharing therefore enables services-based competition to exist in those markets that are not able to support full infrastructure-based competition. In this case, sharing would allow for a better balance between wasteful investment in remote areas and the benefits of infrastructure competition in areas where population densities can support that investment.

The NBN could also be better leveraged to support mobile service delivery in regional areas through access to lower cost backhaul, particularly through NBN Co.'s extensive transmission network and satellite capacity which could be used for backhaul for mobile base stations. In addition, there is scope for greater fixed wireless tower sharing with mobile operators. We note that although there have been various network sharing initiatives in the Australian market from time to time, these have generally been transitory and/or small scale initiatives across parts of the network, and/or involving relatively modest and inefficient forms of network sharing such as co-location.

---

[4] Frontier Economics, Benefits of network competition and complementary policies to promote mobile broadband coverage: A report prepared for the GSMA, February 2015, p. 48.

[5] Ibid.

The most efficient form of network sharing is a domestic inter-carrier roaming arrangement involving wholesale roaming payments to one network operator. We note this option is being examined by the ACCC in its inquiry into whether to declare a domestic roaming service and welcome the opportunity to contribute to this process.

4.5.2 Ensuring a limited range of wholesale transmission services do not raise barriers to increasing data demand and technology evolution

A further area which the ACCC needs to examine is the criticality of transmission services to effective mobile competition, especially in regional areas where those services are not subject to any effective competition.

The ACCC's recent regulatory actions – which have reduced prices for managed transmission services substantially for certain routes – will have a markedly positive influence on the viability of competitive services in particular areas. With that said, the fundamental model of "managed" transmission services envision by the DTCS is ineffective (as outlined below in relation to Part XIC), and merely improves one of the many technology solutions for providing wholesale transmission capacity. There is also a strong case for considering whether this one model of managed transmission will be sufficient for the next generation of fixed and mobile services with exponentially increasing data demands.

"Managed" transmission services require escalating volume based transmission payments to the access provider as the volume of traffic carried across the transmission line increases. Fixed and mobile networks are however experiencing exponential increases in data traffic, particularly driven by increasing demand for streaming video and TV services. Against this context, the managed services model has a limited lifespan before it becomes a fundamental constraint to the competitive development of the industry.

The complementary product which is available either commercially and/or under regulated access obligations in many other advanced markets is dark fibre. Dark fibre provides wholesale access to unlit fibre strands which are then lit and managed by the access seeker rather than the access provider. In other words, with dark fibre access, an access seeker would have the option of choosing and investing in their own active equipment, i.e. the electronics used to light the fibre and deliver services. This provides the access seeker with control and certainty over the technology used, and the cost of managing exponentially increasing capacity rather than being reliant on the access provider to make those choices for the access seeker. Indeed, the access provider is likely to have incentives to restrict the supply of alternative products such as dark fibre since they are likely to generate lower margins for the access provider, and allow the access seeker many advantages in terms of technology choice and cost control and certainty.

These incentives appear to be playing out in the Australian communications market as to date the incumbent has not made any dark fibre offer publicly available. While some limited dark fibre products have finally been made commercially available by another firm in 2015, no carrier has been able to or

prepared to offer dark fibre in regional areas. Since NBN does not have a mandate to offer this product, the only feasible supplier in regional areas would be Telstra.

The product is often and increasingly available in international markets, and has been regulated in some comparable markets such as the UK, the Netherlands and Sweden. Ofcom in the UK reviewed the wholesale market in 2015/16 with a view to identifying critical wholesale inputs which were constraining or potentially constraining the business connectivity market.[6] Ofcom concluded that it would require any firms with significant market power (SMP) to provide dark fibre in response to any reasonable request. Ofcom went so far as to impose a specific pricing methodology on the supply of dark fibre (the "active minus methodology under which the costs of active equipment are deducted from the commercial or regulatory price).

Requiring dark fibre access will provide access seekers with significant flexibility in how they configure their end products to consumers and businesses. This should result in greater product differentiation and innovation, as well as provide a constraint on the pricing of 'active' transmission services. Since flexibility and cost certainty will be critical pre-conditions to continuing expansion of data growth across fixed and mobile networks, the availability of dark fibre, especially in regional areas, is likely to be of substantial importance to the long-term competitiveness of the Australian communications market.

Failings in Part XIC

Part XIC was originally intended to provide an effective access regime which allowed the ACCC to identify key upstream bottlenecks to effective competition and impose standard access obligations and access terms which gave other firms efficient avenues to access declared services at regulated prices.

However it is not possible to characterise XIC as an effective regime given that it allows the incumbent to maintain an argument that key declared services do not exist and cannot be effectively bought by access seekers.

This is particularly evident with the DTCS where, after an extensive and resource-intensive four year process of reviewing and substantially reducing DTCS pricing, the incumbent Telstra continues to assert that access seekers cannot purchase both DTCS and other transmission products, and that it is permitted to charge a substantial premium above regulated pricing by artificially exploiting minor differences it has

[6] Ofcom Review of the Business Connectivity Market, https://www.ofcom.org.uk/__data/assets/pdf_file/0015/72303/bcmr-final-statement-volume-one.pdf

created between the regulated product and the "commercial" products which it makes available. Telstra maintains that VHA can only acquire the "regulated" DTCS if they exclusively purchase the DTCS. That is, access seekers cannot procure both the regulated DTCS and different transmission products on a commercial basis. (Currently, VHA procures Telstra's "commercial" Managed Leased Line Ethernet 'MLL-E' service).

Telstra's position means if, like VHA and all other major Australian providers, there is an existing commercial agreement in place to purchase any transmission product from Telstra then the contract for these services first has to be terminated, including all the services under them, before Telstra will agree to negotiate a new agreement for access to the regulated prices set by the DTCS Final Access Determination. VHA strongly disagrees with this position based on the fact that the Telstra argument that DTCS is a separate product (with less value-added features included with their existing MLL-E product) so there is no contractual reason why the two products cannot be purchased in parallel under the same agreement. Telstra are creating a scenario where they know it is impossible for any existing customers to purchase DTCS without causing major impacts to their businesses. It is not feasible to take sites off air due to the detrimental impact to customers, so an inability to purchase both the MLL-E and the regulated DTCS products concurrently effectively prevents VHA from realising the full benefits of the DTCS FAD.

Failings in Part XIB

The remedies including Competition Notices set out in Part XIB of the *Competition and Consumer Act (2010)* are designed to enable targeted and timely intervention by the ACCC in response to anti-competitive conduct. Given some of the problems we have noted previously (for example in relation to the supply of the DTCS), it is unclear why the ACCC has not sought to make more frequent use of the faster, industry-specific enforcement powers of Part XIB. The limited use of Part XIB may have led to the normalisation of practices and behaviours that undermine the effectiveness of Part XIC, particularly given the access hierarchy set out in section 152AY and ambiguity in the service description of declared services that enables access providers to make minor variations that have the effect of circumventing or undermining Part XIC.

Co-location

To date the Facilities Access Regime has required that telecommunications facilities are made available, but has left the terms of co-location to commercial agreement. For the reasons outlined above, Telstra's clear dominance in regional areas has led to incentives for Telstra to raise barriers to entry for other players. Telstra has done so through raising the cost of critical upstream inputs including not only regional transmission, but also the price and non-price terms of co-location. In the context of the Federal Government's Mobile Black Spot Program for example, contrary to the spirit and letter of the Program's guidelines, Telstra negotiated a specification for co-location space on its towers which was substantially less than the minimum required for the standard space and weight requirements of co-location seekers. Again in the context of the Program, Telstra also insisted on standard co-location pricing despite having received substantial subsidies (~50 per cent) for the capital costs of building the base stations. This results

in high barriers to entry, substantial additional subsidies to Telstra and a frustration of the intent of both the Mobile Black Spot Program and the Facilities Access Regime.

4.5.3 Avoiding imbalanced spectrum holdings

In Section 2 of this report, we suggested that the ACCC's recent approach to competition limits for spectrum acquisition appear to have reinforced existing competitive advantages. This is because the ACCC has allowed Telstra to accumulate over 60 per cent of the spectrum that is commonly used to deliver mobile services in regional areas. Telstra's excess concentration of spectrum holdings within this geographic area distorts incentives for competitive investment to the detriment of regional mobile consumers.

An alternative distribution of spectrum would enhance the prospects for competition in downstream markets, without unduly restricting Telstra's ability to compete. Recent analysis of competition limits in relation to 1800 MHz spectrum in regional areas offers confusing messages in this regard. The ACCC's advice stated that "if Telstra did not acquire additional regional 1800 MHz spectrum in the auction, it is unlikely that its ability to compete in the relevant mobile broadband markets would be constrained." However, and notwithstanding Telstra's holdings across multiple bands in regional areas, the ACCC still recommended that Telstra be able capture more than half of all 1800 MHz spectrum while not permitting any of its competitors or prospective entrants like TPG to achieve the same outcome.

This market study now gives the ACCC an opportunity to consider the significant of spectrum availability in regional competition. We recommend the ACCC undertake a detailed review of its approach to setting allocation limits for spectrum auction and then issue formal guidelines on its process.

4.5.4 Avoiding government subsidies and other competitive distortions that reinforce market dominance or favour particular players/technologies

The Australian communications market is characterised to an unusual extent by implicit and explicit subsidies, and unintended but significant competitive distortions.

Since these arrangements can and do cause substantial competitive distortions, the ACCC should at least compile a comprehensive list of all the significant subsidies and distortions and put forward a view on which should be addressed, and the most appropriate avenue for them to be addressed.

Government investments in improving mobile network coverage, in particular through the Mobile Black Spot Program, have provided benefits to consumers in regional and remote locations by improving mobile coverage and reliability. VHA also recognises the Program's encouragement of greater infrastructure sharing both with the NBN and amongst mobile network operators.

Unfortunately, there is a risk that government initiatives such as the Mobile Black Spot Program become a mechanism through which taxpayer funds further entrench Telstra's incumbency position in mobile services across regional areas. Despite relying on a competitive tender process to select mobile network

operators to provide base stations in areas with inadequate mobile coverage, in reality, Telstra faces little competition across areas where other mobile network operators lack backhaul capacity to support the cost-effective rollout of new base stations. Although successful tenderers need to undertake to allow other mobile network operators to share new base station infrastructure, the extent of infrastructure sharing has been limited by ownership of backhaul infrastructure and for the reasons outlined in 4.5.2 of this submission u der 'Co-location'.

VHA contends that while it is the role of government to provide social funding to invest in infrastructure to provide a public benefit, this should occur in a competitively neutral manner. Policy responses and subsidies should benefit all consumers. Providing funds to one mobile network operator to expand coverage that only benefits one group of customers is not the most effective use of public funds.

While the USO is currently being reviewed by the Productivity Commission, is must again be noted for the purposes of this submission that the current USO is an opaque, inefficient, inflexible and outdated model which delivers poor outcomes for consumers at the cost of substantial distortions to competition. A scheme which guarantees $6 billion over 20 years to Telstra, for legacy copper and payphone infrastructure without any serious scrutiny of cost, let alone a cost-benefit analysis, is clearly not the ideal solution in an evolving communications market.

By way of a further example of a substantial distortion introduced into the market by policy and regulation, the *Telecommunications Numbering Charges Act (1997)* and determinations under that Act impose significant charges upon some forms of communications numbers (particularly mobile numbers), but exempt geographic (i.e. fixed) numbers from the charging regime. In an environment in which competitive forces prevent the pass through of numbering charges to customers, and in which there is significant and increasing fixed to mobile substitution, this is a substantial competitive distortion.

Some forms of subsidy distortion may require complicated or long-term solutions, but the example of the number tax has two potential obvious solutions to level the competitive playing field – either withdrawing numbering as a basis for levying industry fees and taxes or ending the artificial exclusion of geographic numbers in the overall numbering tax base.

5 Competition in fixed line services and the role of the NBN

Australia has one of the most concentrated fixed line markets and highest fixed voiced prices in the developed world. This enduring problem has been a significant policy problem and precipitated the development of the NBN. The NBN has the potential to deliver a level competitive playing field, however at this stage it has not resulted in improvements in this market. Indeed, in recent years market concentration has increased. With this in mind, the ACCC should take a holistic view of the impact of NBN Co.'s commercial and regulatory arrangements to promote the best outcome for end users. The ACCC should also consider how other policy settings are impinging on market performance. For example government subsidies or excessive regulation generally advantage the incumbent's relative competitive position.

It is important to recognise that the NBN was set up to upgrade Australia's broadband in a way that delivered regional parity and a level competitive playing field. Further, the regulatory framework has been set up for the ACCC to play a crucial oversight role of this competition objective.

The ACCC's role is particularly important as:

- NBN Co. will be a dominant if not monopolistic provider of infrastructure; and
- Certain downstream entities, including Telstra, retain significant leverage over NBN Co. through the supply of network services such as duct access.

With this in mind, the ACCC cannot play a passive role in the ongoing development of the NBN and the evolving market structures in the fixed market. While the SAU has been accepted, NBN pricing issues (such as the high and escalating CVC price) and the market structure and barriers to entry posed by the 121 NBN POIs continue to be controversial elements of the NBN model. These and other potential competition distortions must be carefully assessed.

5.1 Current regulatory decisions could perpetuate current market distortions

At face value, the move to an NBN wholesale provider should provide a significant impetus to retail competition for broadband services. The NBN essentially removes the cost and operational advantages enjoyed by Telstra and other incumbent suppliers of services that own either own copper local loop and/or exchange infrastructure. The NBN infrastructure essentially overbuilds the existing copper telecommunications network and in practical terms, this means that the fixed infrastructure costs associated with entry should improve.

That being said, the market is currently experiencing an unequivocal move towards greater industry consolidation in the retail sector. Some of the drivers of this consolidation are clearly efficiency related – vertical integration between owners of other kinds of network equipment (such as backhaul) allow efficiencies to be achieved, whereas retail fixed costs can also be spread over a wider cost base. However,

other factors in favour of consolidation are a function of regulatory decisions and commercial decisions by NBN Co.:

- The distributed POI model favours providers with an extensive backhaul network, which is subject to economies of scale; and
- The structure of retail charges with a large shared usage (CVC) component favours providers with many customers in a serving area.

VHA considers that the appropriate principle is that for the full benefits of the NBN to be achieved, it should promote competition 'on the merits', and not allow past advantages to be extended into the NBN world.

In that light, the POI and charging decisions could lead to a concentrated market, but whether this is due to capturing of efficiencies of scale or entrenching an uncompetitive retail structure is difficult to tell. Scale offers efficiency benefits, but it is also necessary to recognise that it may also result in higher concentration and less competition.

These concerns about concentration are greater again in regional areas. While NBN Co. will make its wholesale access network available to all RSPs at the same price, each RSP will be responsible for operating or leasing backhaul transmission capacity from one of NBN Co.'s 121 POIs to the RSP's own core network. Telstra's high market share in regional Australia and extensive regional backhaul network could allow it to provide a higher-quality super-fast service to regional customers at a lower cost without fundamentally being any more efficient or innovative than other RSPs.

5.2 Policy and regulatory favouritism should be avoided

The NBN is a major financial investment for the Government. Clearly, the ongoing uncertainty about the cost of rollout and choice of technologies creates a policy environment that is antagonistic towards infrastructure-based competition for NBN Co.

In that light, it is perhaps not surprising that there is a number of examples where NBN Co. is being favoured by government decisions, particularly with respect to potentially competing suppliers. This includes:

- NBN Co.'s favourable spectrum arrangements (including spectrum that is likely to form part of the spectrum used for the provision of 5G services) through setting aside some 3.5 GHz spectrum so that NBN Co. can acquire apparatus licences for its fixed wireless service at the metro fringe.
- Decisions to subject all suppliers of certain kinds of competing services to NBN Co. to structural separation provisions, even if those suppliers would not meet a threshold of substantial market power or that this action would promote competition or efficiency.
- Government subsidy arrangements in telecommunications that are disjointed and inadvertently protecting the incumbent from competition. The USO, state and federal government funding of

infrastructure, emergency services funding (and other government procurement approaches) have all perpetually failed to promote competition, indeed many have effectively guaranteed that government funding increases the incumbent's monopoly position.

5.3 Uncertainty around funding of loss-making services, and NBN Co.'s financial position

The ACCC is on record as stating that it favours infrastructure competition, and VHA supports the view that regulatory policy should seek to be neutral with respect to particular forms of broadband infrastructure. In that light, the ACCC should recognise that the ongoing uncertainty around (a) NBN Co.'s financial position and (b) the proposed imposition of a levy on competing fixed line suppliers (which was investigated by the Bureau of Communications Economics) is unhelpful to the development of infrastructure-based competition.

A fundamental problem with NBN Co.'s current financial position is that it is burdened with large, unprofitable investments which must be internally funded. The Government's most recent statement of expectations says that NBN Co. "should operate on a commercial basis."[7] However, without firm guidance as to a target rate of return, or writing off capital costs as subsidies, it is not possible to act commercially and in compliance with competitive neutrality guidelines which, in principle, provide the policy basis for the operation of government business enterprises in Australia.

Without a definitive statement on subsidies, it is difficult for the management of NBN Co. to know whether it should undercut the prices of competitors if this would increase its losses. If, on the other hand, the subsidy provided to NBN Co. that is currently implicit was made explicit, then NBN Co. could target the earning of a competitive return. As it stands, NBN Co.'s start-up losses, as captured in its 'ICRA', appear very unlikely to ever be recovered, which reduces the financial discipline on NBN Co. to invest and price efficiently.

[7] http://www.nbnco.com.au/content/dam/nbnco2/documents/soe-shareholder-minister-letter.pdf

6 Other regulatory issues

In this section of the report, we briefly discuss a number of areas where the existing regulatory approach taken by the ACCC might need to be reconsidered. The driver of change in each case is different however this market study provides a useful forum to consider the issues outside of the confines of the existing regulatory processes.

6.1 Internet interconnection

Internet peering arrangements refer to how internet service providers connect their networks and pass traffic to one another. Peering is the practice of allowing reciprocal traffic flows between providers at no charge. Concerns relating to internet peering have arisen periodically, because the current arrangements are not fundamentally sound and appear on their face to be anti-competitive. The ACCC should determine a path or process by which a better peering solution could be achieved.

Australia's arrangements are unusual in that while peering is commonplace among smaller service providers, the so-called "gang of four" (which includes both Telstra and Optus) require other providers to purchase connectivity to and from their networks at commercial (transit) IP carriage rates.

The existing arrangements were strongly influenced by a 1998 ACCC decision which resolved issues at that time. However, massive increases in data usage may well place further pressure on these arrangements, which seem to lack a sensible economic basis in an NBN world.

We recommend the ACCC undertake a detailed investigation of this market as part of the market study.

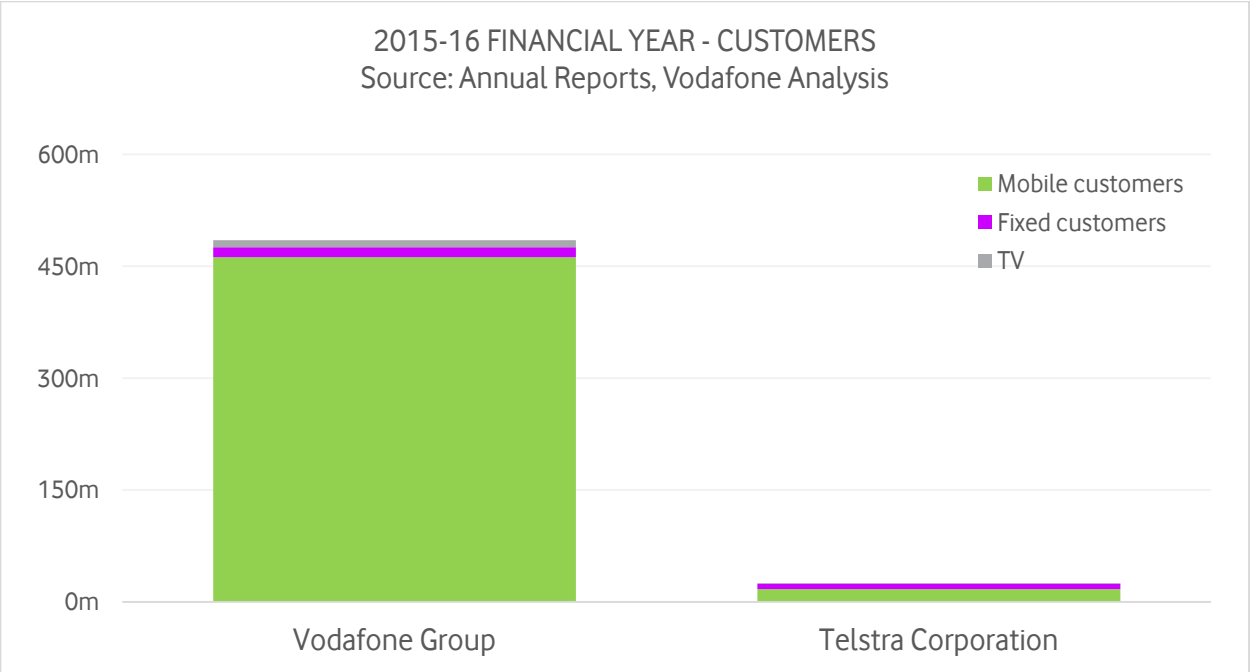
6.2 Mobile interconnection

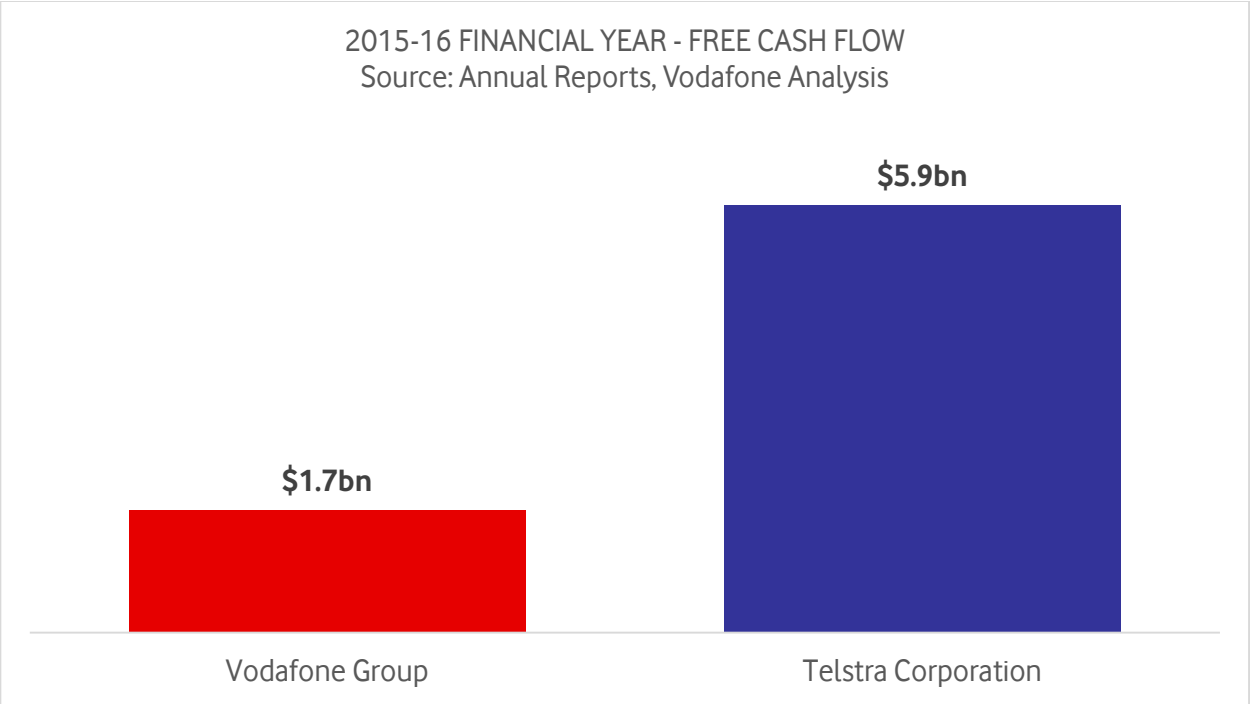
Recent developments in mobile voice technology have allowed the development of higher quality voice services which use less data capacity, including VoLTE and HD Voice. However, these services are only available "on net" and it is unclear whether operators will have incentive to voluntarily offer (IP) interconnection for these products.

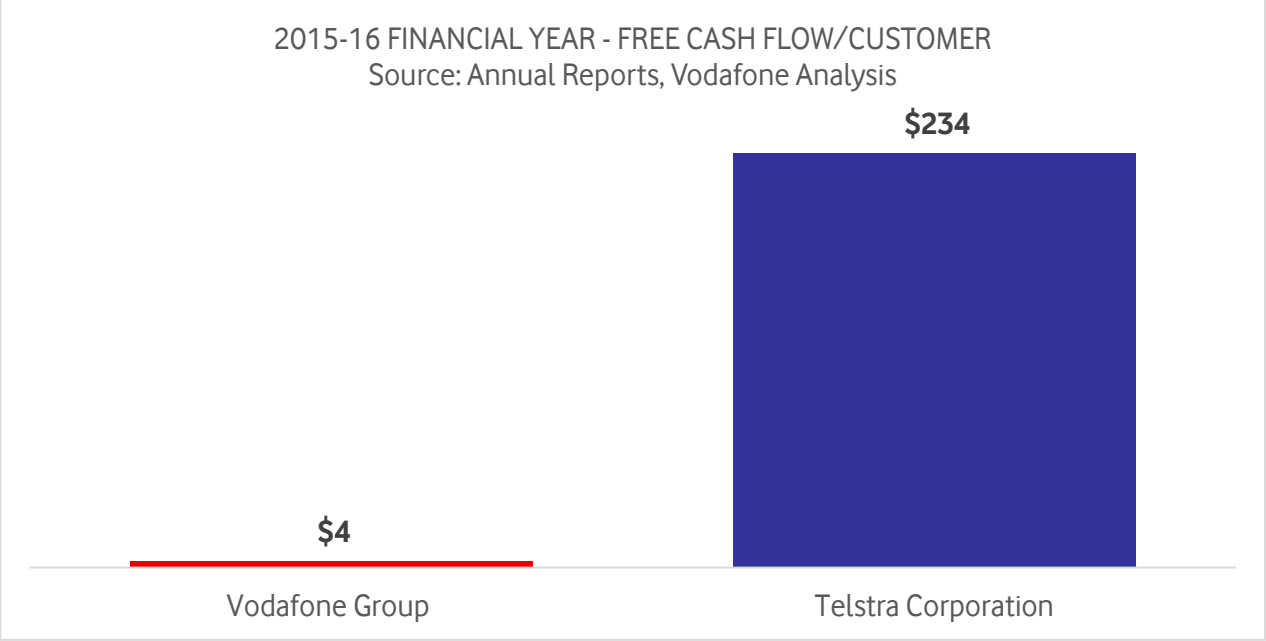
VHA's experience to date has been that there are few incentives for other carriers to offer interconnection that would suit the delivery of higher-quality mobile voice services. In turn, this may not be fully achieving the "any to any connectivity" objective of the Part XIC access regime.

VHA's view is that the ACCC should consider whether there are incentives in place to offer interconnection (i.e. whether unwillingness to offer interconnection is a result of the use of market power), and whether regulatory intervention could be justified.

ATTACHMENT: Indicators of structural competition issues






2015-16 FINANCIAL YEAR - FREE CASH FLOW/CUSTOMER
Source: Annual Reports, Vodafone Analysis
$234
$4
Vodafone Group
Telstra Corporation