Statement of Preliminary Views

30 September 2022

Telstra Corporation Limited and TPG Telecom Limited

Application for merger authorisation MA1000021

Key points

- The ACCC is considering an application for merger authorisation lodged by Telstra and TPG in relation to spectrum sharing and active mobile network infrastructure sharing in certain regional and urban fringe areas of Australia. This is an area in which approximately 17% of the Australian population resides and is known as the Regional Coverage Zone. Specifically, Telstra and TPG have entered into three interrelated agreements to implement a Multi-Operator Core Network (**MOCN**) commercial arrangement: the MOCN Service Agreement, the Spectrum Authorisation Agreement, and the Mobile Site Transition Agreement (together, the **Proposed Transaction**).
- Merger authorisation provides statutory protection from legal action under section 50 of the *Competition and Consumer Act 2010* (Cth) (the **Act**), which prohibits the acquisition of shares or assets if the acquisition would have or be likely to have the effect of substantially lessening competition in any market. The acquisition of spectrum is deemed by section 68A of the *Radiocommunications Act 1992* (Cth) to be an acquisition for the purposes of section 50 of the Act.
- In order to grant authorisation, the ACCC must be satisfied in all the circumstances that the Proposed Transaction is not likely to have the effect of substantially lessening competition or that it is likely to result in public benefit that outweighs the public detriment that would be likely to result. In the circumstances of this application, where the acquisition for which authorisation is sought is limited to the acquisition of spectrum, the ACCC proposes to consider the Proposed Transaction in the context of the broader effects of the three agreements entered into by Telstra and TPG, which comprise part of the circumstances to be taken into account under the statutory test.
- This statement of preliminary views outlines the ACCC's views about key issues, including the appropriate timeframe over which to assess the effects of the Proposed Transaction, the likely future without the Proposed Transaction, factors affecting competition in relevant markets, how the Proposed Transaction is likely to impact competition in those markets, and the likely benefits and detriments of the Proposed

Transaction.

- In respect of the competitive effects of the Proposed Transaction, the ACCC is considering whether the Proposed Transaction is likely to affect:
    - price-based competition: whether the Proposed Transaction will result in a reduction in the ability and incentive of mobile network operators to compete on the basis of price and inclusions. Any such lessening of competition could harm consumers in either (or both) the short-term or the long-term.
    - infrastructure-based competition: competition in both retail and wholesale mobile markets is enabled by the network infrastructure and spectrum held by mobile network operators. Mobile network operators compete by making choices about how they will invest in their networks, such as by acquiring spectrum, rolling out new sites, densifying their network in existing areas or upgrading to newer technologies. These investments in spectrum and infrastructure enable mobile network operators to compete on coverage, service quality, and price and plan inclusions in the longer term.

      The ACCC is considering whether the Proposed Transaction is likely to result in a lessening of competition because of a reduction in the abilities and incentives of any or all of the mobile network operators to invest in infrastructure in regional and rural areas, to the long-term harm of consumers of mobile services.
- In respect of the public benefits and detriments likely to arise as a result of the Proposed Transaction, the ACCC is considering:
    - public benefits: network improvements, innovation and improved choice in the Regional Coverage Zone; reduced network costs and more efficient utilisation of infrastructure; and environmental benefits (such as reduced energy use and less visual pollution).

      The ACCC is considering what benefits are likely to result from the Proposed Transaction as well as the extent and significance of those benefits.
    - public detriments: in addition to the detriments that may arise from any lessening of competition likely to result from the Proposed Transaction, the ACCC is considering whether the Proposed Transaction is likely to result in negative impacts on the long-term structure of the industry; or wider effects on the economy and employment, and network resilience during emergencies or natural disasters.

1. The Proposed Transaction

1.1. The ACCC is considering an application for merger authorisation lodged by Telstra Corporation Limited (**Telstra**) and TPG Telecom Limited (**TPG**).

1.2. Telstra and TPG (the **Applicants**) have entered into three interrelated agreements to implement a Multi-Operator Core Network (**MOCN**) commercial arrangement: the MOCN Service Agreement, the Spectrum Authorisation Agreement, and the Mobile Site Transition Agreement (together, the **Proposed Transaction**).

1.3. The arrangement involves TPG authorising Telstra to use spectrum currently held by TPG, and Telstra providing TPG active mobile network infrastructure[1] services in certain regional and urban fringe areas (an area in which approximately 17% of Australians reside) (the **Regional Coverage Zone**). TPG will use the MOCN services for its 4G and 5G coverage in the Regional Coverage Zone as part of its retail and wholesale services. TPG will also transfer up to 169 of its existing mobile sites in the Regional Coverage Zone to Telstra and intends to decommission the remainder.[2]

1.4. The initial term of the MOCN Service Agreement is 10 years and TPG has 2 options to extend the agreement by 5 years, and an option for a transition period of 3 years.[3] The Spectrum Authorisation Agreement may continue after expiry or termination of the MOCN Service Agreement unless terminated by Telstra or TPG.[4]

1.5. Telstra and TPG will continue to operate their own mobile core networks in the Regional Coverage Zone (in the 81.4% to 98.8% area of population coverage). They will also continue to operate their own networks in metropolitan areas where around 81.4% of Australia's population resides.[5] The agreement will not enable TPG to use Telstra's network to extend its coverage into remote areas beyond the Regional Coverage Zone. Telstra will remain as the only provider with coverage in those areas servicing an additional 0.7% (up to 99.5%) of the population.[6] Very remote areas, in which 0.5% of the population resides, have no mobile coverage. The Applicants provided the following graphical illustration of the Regional Coverage Zone (in draft form) to the ACCC at Figure 1 below.

1 That is, active components of Telstra's mobile network infrastructure, which in this case refers to the radio access network and spectrum.

2 Telstra and TPG application for Merger Authorisation at [7-9].

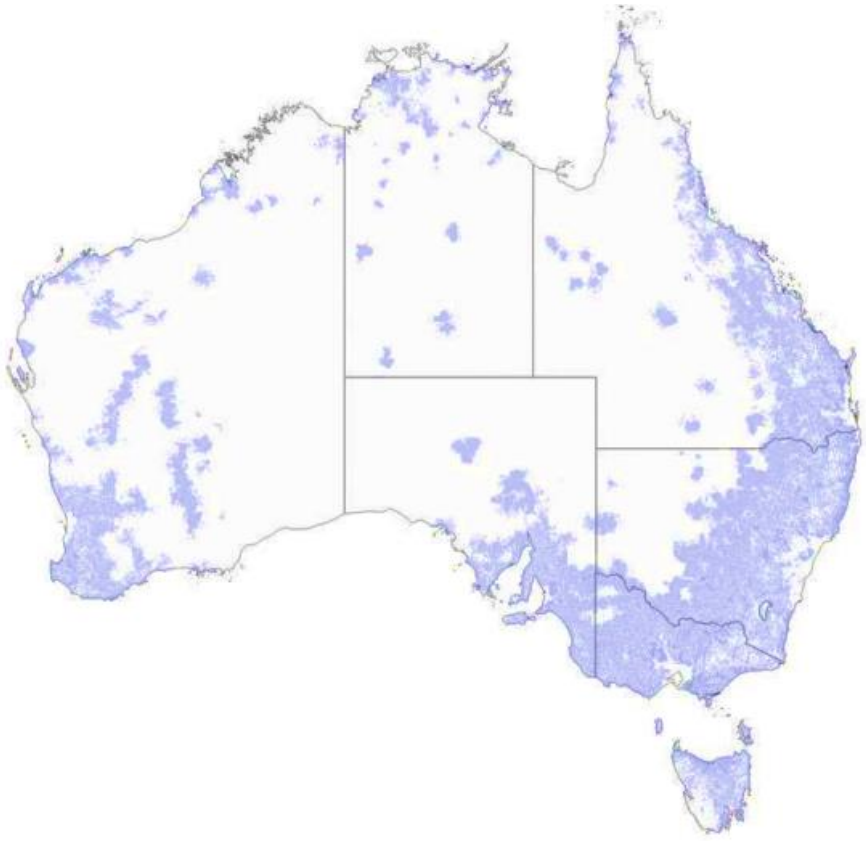
3 Telstra and TPG application for Merger Authorisation at [161-162].

4 Telstra and TPG application for Merger Authorisation at [10].

5 Telstra and TPG application for Merger Authorisation, p 7.

6 Telstra and TPG application for Merger Authorisation at [192(a)].

Figure 1: Illustration of the Regional Coverage Zone



Source: Provided by the Applicants on 1 September 2022.

1.6. This application was made under section 88(1) of the *Competition and Consumer Act 2010* (Cth) (the **Act**). A merger authorisation provides protection from legal action under section 50 of the Act, which relevantly prohibits an acquisition of assets that has or is likely to have the effect of substantially lessening competition in any market.

1.7. The Applicants seek merger authorisation for the contractual authorisation of Telstra (pursuant to the Spectrum Authorisation Agreement) to operate radiocommunications devices under TPG's spectrum licences, which is deemed by section 68A of the *Radiocommunications Act 1992* (Cth) (the **Radio Communications Act**) to be an acquisition for the purposes of section 50 of the Act (the **Spectrum Acquisition**).

1.8. Key elements of the Proposed Transaction are outlined in more detail in section 4.

The test for merger authorisation

1.9. The ACCC may grant merger authorisation, but must not do so unless satisfied, in all the circumstances, that either:

- the conduct would not have the effect, or not be likely to have the effect, of substantially lessening competition, or
- the conduct would result, or be likely to result, in a public benefit, and this public benefit would outweigh the public detriment that would result, or be likely to result, from the conduct.

1.10. In the circumstances of this application, where the acquisition for which authorisation is sought is limited to the acquisition of spectrum, the ACCC proposes to consider the Proposed Transaction in the context of the broader effects of the three agreements entered into by Telstra and TPG, which comprise part of the circumstances to be taken into account under the statutory test.

Length of authorisation

1.11. An authorisation may be expressed to be in force for a specified period.

1.12. Ordinarily, in considering a merger authorisation the ACCC would identify a period considered sufficient for the acquisition to complete, generally 12 months. The Spectrum Authorisation differs from a usual merger transaction as it involves authorisation of ongoing use of spectrum over time rather than a sale and purchase confined to a single event.

1.13. In these circumstances, the ACCC is considering the appropriate period of time for authorisation, should it be granted. This may be as long as the duration of the agreements, or a shorter period that may require the Applicants to seek reauthorisation at some point in the future.

1.14. However, in any case it is appropriate to consider both the short and long-term impacts of the Proposed Transaction, noting that the Applicants submit that the timeframe for assessment is the term of the Proposed Transaction, and allowing for any relevant consequences that may continue for a period after the term:

> *The relevant assessment is to consider the likely state of competition without the Proposed Transaction based on the available evidence. As the Proposed Transaction does not involve any actual transfer of shares or assets and is term-limited, it is appropriate to assess the counterfactual against the term of the Proposed Transaction, and allowing for changes to the conditions of competition continuing for a period after the duration of the term*.[7]

1.15. Regardless of the time period for which authorisation is granted, the Proposed Transaction has long-term consequences, as it involves TPG shutting down a significant portion of its mobile network and Telstra gaining significant spectrum holdings (the licences for which expire between 2028 and 2032).[8]

Public consultation

1.16. The ACCC tests claims made by an applicant in support of an application for authorisation, and by others who may support or oppose authorisation, through an open and transparent public consultation process.

1.17. In response to the application for authorisation of the Proposed Transaction, the ACCC sought the views of a range of interested parties, including providers of telecommunications services and relevant regulatory and industry bodies.

1.18. The ACCC has received over 90 written submissions from interested parties and conducted additional market inquiries. All submissions are available on the merger authorisations register, except information subject to a claim of confidentiality.

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7 Telstra and TPG application for Merger Authorisation at [39].

8 ACMA, https://www.acma.gov.au/reissue-spectrum-licences, accessed 26 September 2022.

1.19. The Applicants have provided two responses to public submissions – one in response to submissions made by Singtel Optus Pty Limited (**Optus**) and one in response to certain submissions from interested parties. The Applicants' response includes a number of witness statements. The Applicants' submissions and witness statements are also available on the public register.

1.20. The ACCC has also received and will have regard to a range of information and documents from relevant parties through the use of its statutory information gathering powers and through voluntary requests for information. This material is generally not placed on the public register as it is confidential, but it is information the ACCC has regard to.

2. Industry background

The Applicants

Telstra

2.1. Telstra is an ASX-listed telecommunications company which operates more than 11,000 mobile base stations nationally, covering over 2.5 million square kilometres.[9] Telstra is Australia's largest mobile network operator (**MNO**). Telstra currently operates approximately 3,700 mobile base stations within the Regional Coverage Zone.[10] Telstra's network has 99.5% population coverage.[11]

TPG

2.2. TPG is the second largest telecommunications company listed on the ASX and third largest wireless carrier in Australia. TPG confirmed its position as the third MNO following its merger with Vodafone Hutchison Australia in 2020.[12] TPG operates more than 5,600 mobile base stations nationally[13] and currently operates 725 mobile base stations in the Regional Coverage Zone.[14] TPG's current network has 96% population coverage and is extended under a roaming agreement with Optus.[15]

Other industry participants

Optus

2.3. Optus supplies fixed and mobile voice and broadband services. Optus has the second largest number of subscribers in mobile services, and the third largest number of subscribers in fixed voice and broadband services. Optus' network has 98.5% population coverage.[16] Optus has around 2,500 mobile base stations in the Regional Coverage Zone.[17]

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9 Telstra, https://exchange.telstra.com.au/bringing-more-coverage-communities-regional-australia/, accessed 21 September 2022.

10 Telstra and TPG application for Merger Authorisation, p 8.

11 Telstra, https://exchange.telstra.com.au/bringing-more-coverage-communities-regional-australia/, accessed 21 September 2022.

12 ACCC, Communications Market Report 2020-21, p 10.

13 TPG, https://www.tpgtelecom.com.au/about-us/our-networks, accessed 21 September 2022.

14 Telstra and TPG application for Merger Authorisation, p 9.

15 Telstra and TPG application for Merger Authorisation at [27].

16 Optus submission, 27 June 2022, at [3.4(b)].

17 Telstra and TPG application for Merger Authorisation, p 8.

Mobile Virtual Network Operators

2.4. Mobile Virtual Network Operators (**MVNOs**) acquire wholesale end-to-end mobile services from MNOs (Telstra, Optus, or TPG) and resell the mobile service under their own brands. Some MVNOs operate their own marketing and customer care/support, whereas others resell the entire service from an MNO.

Mobile networks and spectrum

2.5. A mobile network uses spectrum (discussed further below) to connect mobile devices and deliver mobile services (such as voice, SMS and mobile data) to those devices.

2.6. A mobile network has three primary components: consumer devices, a radio access network and a core network.

2.7. Consumer devices include mobile handsets or smartphones, tablets, some laptops or standalone devices such as dongles, dedicated wireless hotspots or portable Wi-Fi modems.

2.8. The radio access network consists of base stations (mobile towers or cell sites) which are connected to the rest of the network via transmission links (also known as backhaul). These can be wireless (microwave) links but are now more commonly fibre.

2.9. A base station uses radio frequency spectrum to communicate between the consumer device and the core network. A base station provides mobile coverage to an immediate geographic area called a cell. Importantly, in a mobile network, mobile devices will maintain connectivity with the network as the end-user (or device) moves between cells (inter-cell handover).

2.10. The core network manages voice, SMS and/or data traffic, connects and manages different parts of the network and connects to other networks, including the internet.

2.11. Each MNO has a radio access network and a core network. Mobile services connect to other operators' networks at a point of interconnection between their respective core networks. Billing and user management takes place at the core network level.

2.12. MNOs use a range of radiofrequency spectrum bands to provide mobile services and these can be used across a range of technologies, including 3G, 4G and 5G. Spectrum is classified into 3 categories – low band, mid band and high band.[18]

2.13. Spectrum is the medium by which a mobile device connects to a base station or mobile tower. Spectrum is measured in megahertz (MHz) or gigahertz (GHz) bands (for example, 850 MHz, 2100 MHz and 3600 MHz). Access to spectrum is a critical factor for providing mobile services in Australia, as a mix of spectrum is required across low, mid and high bands in order to provide coverage and capacity across cities and regional and remote areas.[19] High band spectrum is an essential element for 5G and low latency applications. Lower band spectrum is

[18] ACCC, Mobile Infrastructure Report 2022, p 16.

[19] Telstra and TPG application for Merger Authorisation at [71(c)].

generally more important in regional areas because its signal carries the furthest and it can penetrate obstacles, such as buildings and trees.[20]

2.14. The scarcity of spectrum and its value to MNOs are demonstrated by the very high prices they are willing to pay for licences, both at auction and in the secondary market.

Infrastructure sharing

2.15. Australian operators have historically made use of passive infrastructure sharing. Passive infrastructure may involve the sharing of non-electronic infrastructure such as cell sites, towers, and security but does not include the sharing of electronic equipment capable of processing or converting telecommunications signals. Co-location of mobile sites (a form of passive infrastructure sharing) has been encouraged by the *Telecommunications Act 1997*.[21]

2.16. The MNOs have built and managed passive infrastructure as part of their networks. There are also a number of independent third-party infrastructure providers that build and maintain passive and active mobile infrastructure, supplying the MNOs and other access seekers. Telstra, Optus and TPG have all recently divested some of their passive infrastructure into separate entities, in part to fund the rollout of their 5G networks. Telstra, for example, has sold a 49% stake in its tower business (now Amplitel), while Optus has sold a 70% stake in its tower business (Australia Tower Network).

2.17. Third-party infrastructure providers and the newly divested MNO tower businesses are likely to have a greater incentive than MNOs to provide access to their infrastructure, and therefore to maximise tenancy on their sites. In more remote areas, it may be necessary to have multiple tenants in order to make it economic to deploy mobile infrastructure.

2.18. Neutral host providers can deploy mobile sites predicated on active (rather than passive) sharing of network elements. This enables mobile operators to share active radio equipment at a site, including radios. Forms of neutral hosting are currently being deployed at small scale. Further, trials of larger scale neutral hosting are underway and are supported by various state government initiatives to determine the viability of this approach.

Mobile broadband and fixed wireless

2.19. 5G technology makes more efficient use of spectrum, delivers faster speeds and provides better reliability and lower latency as compared to 4G technology. The rollout of 5G enables network operators to not only offer improved mobile broadband but also provide fixed wireless alternatives to homes and small businesses, in competition with traditional fixed line broadband and NBN technologies.

2.20. All 3 MNOs (Telstra, Optus and TPG) offer 5G home broadband in some locations, which is generally price competitive with comparable NBN plans. 5G services in some areas are becoming increasingly attractive to consumers as an

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[20] Telstra and TPG application for Merger Authorisation at [75].

[21] The ACCC administers the Facilities Access Code, which sets out the conditions to be complied with in the provision of telecommunications transmission towers, sites of towers and underground facilities.

alternative to fixed line services.[22] The MNOs appear to increasingly focus on supplying wireless broadband services through their own mobile networks, bypassing the need to acquire NBN wholesale fixed broadband services.[23]

Enterprise and government segment

2.21. The MNOs also compete for retail customers in the enterprise and government segment.

2.22. Enterprise and government customers typically have much larger data requirements and require broadband services in multiple locations across Australia. The Applicants submit that the mobile services provided to these customers are mostly retail-grade services, which are the same services offered to individual retail customers but packaged up into an overall offer for small and medium-sized enterprises, larger enterprises and government customers.[24]

3. Factors affecting competition between MNOs

3.1. The extent of differentiation between the mobile services MNOs supply is determined by their respective investments in network coverage, speed, technology and density; as well as rights they have acquired to use spectrum. This, in turn, heavily influences the ways in which MNOs can profitably compete to win customers at the retail level, through the prices and inclusions they offer, including (but not limited to) data allowances, devices, and bundles of call and text services.

3.2. MNOs also compete in the provision of wholesale mobile services to MVNOs. MVNOs use these services to compete with each other and the retail brands of their vertically integrated host networks to provide downstream retail services to consumers.

3.3. As noted earlier, aside from supplying consumers, MNOs compete for small to medium sized business customers, and in the large enterprise and government segment. In addition, they compete to provide fixed wireless access services.

3.4. As shown in Figure 2 below, Telstra continues to have the largest nationwide combined share of retail and wholesale services in operation. Telstra's share of services in operation has been increasing in recent years, while Optus' share has been stagnant. TPG's share has steadily fallen since 2010.

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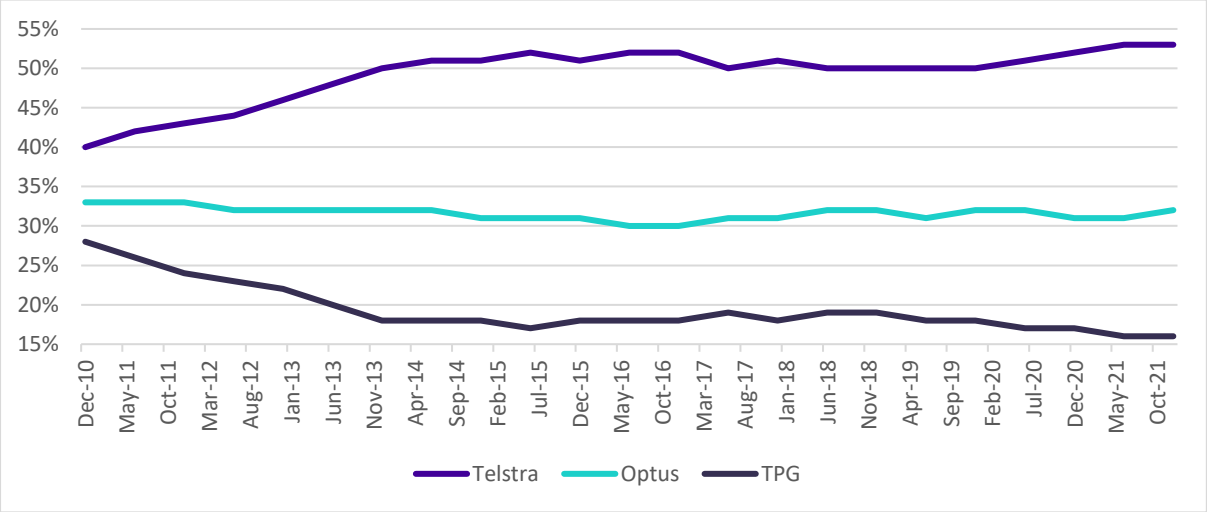
22 ACCC, Communications Market Report 2020-21, p 38.

23 ACCC, Allocation limits advice for the 3.4 GHz and 3.7 GHz spectrum allocation - August 2022, p 3.

24 Telstra and TPG response to Optus' interested party submission and ors (Tranche 2) at [31]-[32].

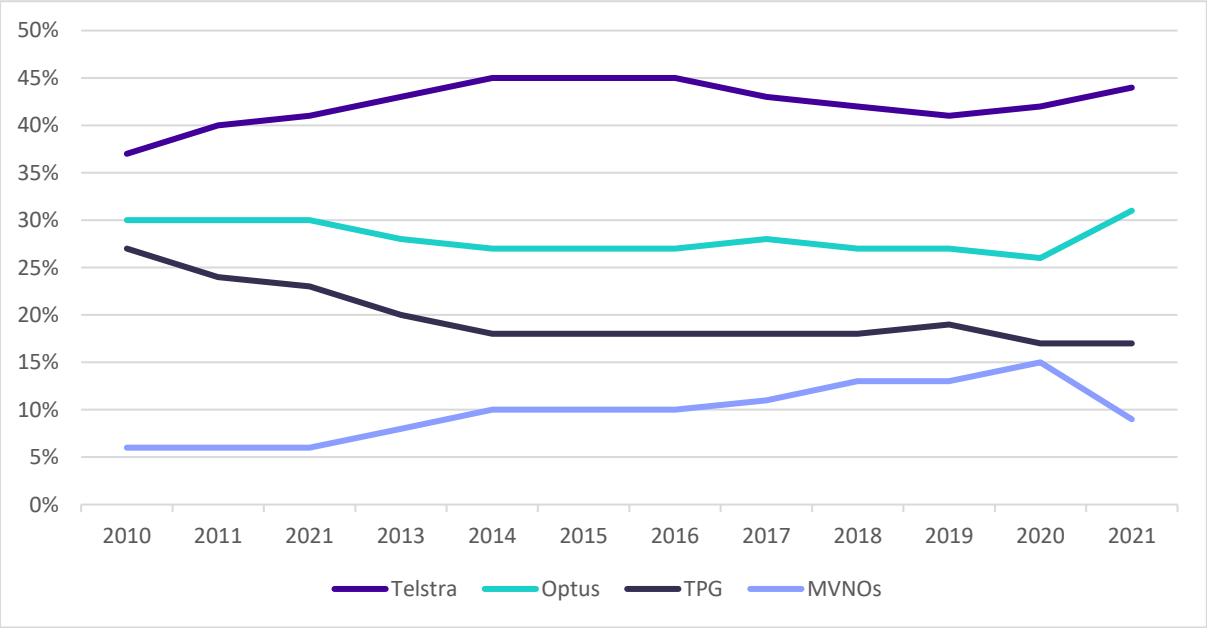
Figure 2: Share of total services in operation[25]



Source: Optus submission, 27 June 2022, p 19 (Optus submits that figures are based on company annual reports, including all mobile services in operation and excluding internet of things services).

3.5. The number of customers acquiring services via MVNOs declined in 2021 from 15% to 9%. In large part, this was due to large MVNOs being acquired by MNOs (for example, Optus' acquisition of Amaysim).[26] Figure 3 below illustrates changes in MNOs' and MVNOs' share of retail mobile services over time. The ACCC considers that while MVNOs importantly provide choice for consumers in retail mobile services, they do not apply significant competitive constraint on the MNOs.

Figure 3: Share of retail mobile market between MNOs and MVNOs



Source: ACCC Communications Market Report 2020-21, p 28.

[25] 'TPG' here includes Vodafone Hutchison Australia prior to its merger with TPG Telecom in 2020.

[26] ACCC, Communications Market Report 2020-21, p 8.

3.6. When analysing the effects of the Proposed Transaction on competition, the ACCC considers it helpful to distinguish between long-term/dynamic considerations (where MNOs compete on the basis of network investment); and short-term/static considerations (where MNOs compete on the basis of price and inclusions for any existing level of infrastructure deployed at a given point in time). Factors relevant to these considerations are discussed further below.

Competition to provide mobile services is driven by ongoing investments in infrastructure

3.7. Competition in the supply of both retail and wholesale mobile services is enabled and driven by the underlying infrastructure of the mobile networks. MNOs strive to win or maintain market share by rolling out new coverage, densifying their network in existing areas, and upgrading to newer technologies. These investments enable MNOs to compete on coverage, network reliability, speed, price, and plan inclusions.

3.8. The MNOs also compete for spectrum licences in both the primary and secondary markets for spectrum, in order to improve the quality of their service over the longer term.

3.9. A current focus of competition between the MNOs is 5G availability. All three MNOs have made public announcements about the need to monetise their 5G networks and increase industry revenues from new services made available in 5G.

3.10. The most important factors of competition in the provision of mobile services, and the ways in which they are functions of infrastructure-based competition, are discussed in turn below.

Geographic coverage is a key factor of competition in mobile services

3.11. Consumers value mobile coverage in the areas in which they live, work and travel. While the extent to which the MNOs are willing to invest in coverage will depend upon each operator's business model, the extent of geographic coverage is a key component in the attractiveness of mobile services. The importance of wide geographic coverage to competition in mobile services can be understood by the high expenditure of MNOs to provide mobile services in regional and rural Australia.

3.12. In metropolitan areas, all three MNOs exert competitive pressure on each other and drive investments in infrastructure in these areas, including cell densification, technology upgrades and investments in spectrum and fibre, including backhaul, to serve these denser areas.

3.13. In more remote areas, the MNOs make strategic investments in sites which may not be profitable in isolation. Operators are incentivised to deploy infrastructure in these areas in order to maintain an actual or perceived advantage in geographic coverage and quality. In this way, infrastructure competition creates benefits to consumers in the form of wider and deeper coverage among competing MNOs, as well as in the retail and wholesale markets more generally.

3.14. The degree to which consumers value coverage varies. However, coverage in regional and remote areas is valued not only by consumers who live and work in those areas, but also by metropolitan consumers. In many cases, consumers place value on remote coverage in areas they may not travel to frequently or at

all. Operators roll out infrastructure to increasingly sparsely populated areas not only to capture market share in those areas, but to retain existing share and win new share in denser areas where coverage is already available.

3.15. For example, Telstra's network provides the widest geographic coverage. The ACCC considers that the extent of Telstra's network provides an enduring competitive advantage in downstream markets and is a strong contributor to its high market shares, both in metropolitan areas and in regional areas. Telstra has stated that maintaining network leadership is critical to its growth strategy leading up to FY2025. Telstra noted that maintaining and extending network leadership will underpin its market position and maintain its price premium.[27] Due to uniform national pricing, this price premium covers both customers in regional areas, as well as in metropolitan areas.

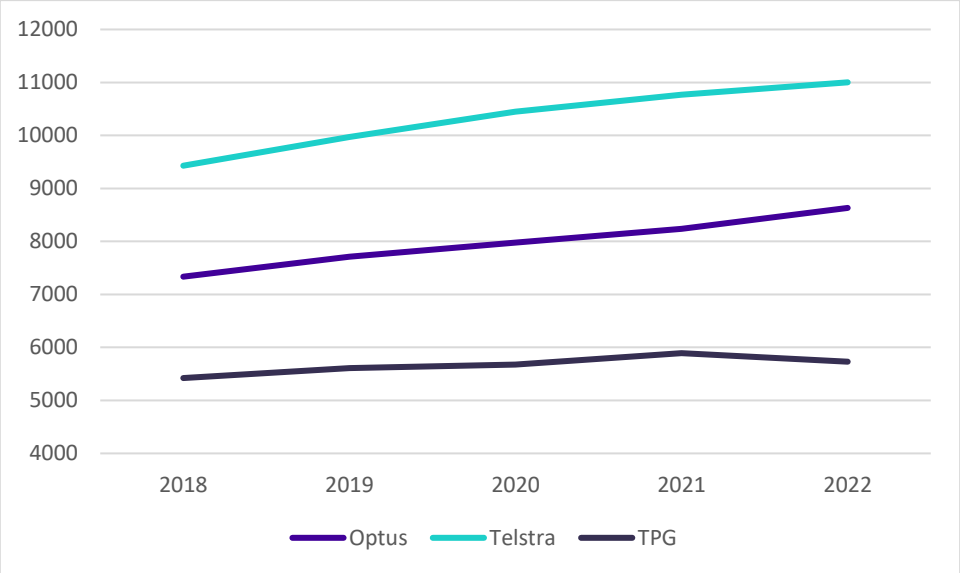
Geographic coverage and network quality is a function of mobile sites and access to spectrum

3.16. In general, greater geographic coverage or improved network quality can be achieved through the rollout of mobile sites, obtaining access to more spectrum, or both.

3.17. Telstra maintains a significant lead in the number of mobile sites it has deployed nationwide and in regional areas. In metropolitan areas alone, Optus has the largest number of mobile sites.[28]

3.18. Data on the MNOs' overall site numbers is set out in Figure 4 below:[29]

Figure 4: Total number of mobile sites by MNO



Source: ACCC Mobile Infrastructure Report 2022, p 6.

[27] Telstra, Telstra Investor Day Briefing Transcript 2021, p 24.

[28] ACCC, Mobile Infrastructure Report 2022, p 3.

[29] ACCC, Mobile Infrastructure Report 2022.

3.19. Significantly, the ACCC notes that Telstra has increased its number of mobile sites by 16.7% since 2018, and Optus has increased its sites by 17.7%. In contrast, TPG has only increased its level of cell sites by 5.6% over this time.

3.20. The differentiated number of sites deployed by each of the MNOs in more regional and remote areas is reflected in the different population coverage claimed by each. In remote Australia for example, Telstra has 708 sites in total (Optus has 241 and TPG has 62), and in very remote Australia, Telstra has 898 (Optus has 158 and TPG has 8).[30]

3.21. MNOs need access to spectrum in order to provide a mobile service. The amount of spectrum and range of spectrum bands held affect the reliability, reach, speed and technologies (such as 5G) of mobile services delivered.

3.22. MNOs compete to acquire spectrum at auctions for spectrum licences conducted by the Australian Communications and Media Authority (**ACMA**), and in the secondary market for spectrum licences. Demand by MNOs (and the price they are willing to pay) for spectrum is especially driven by the scarce nature of spectrum and the relationship between spectrum and network speed and capacity. This is particularly important given the increasing demand for mobile data by consumers.

3.23. All three MNOs make coverage claims in their marketing material. Telstra in particular makes representations regarding its superior geographic coverage and the extent of Telstra's network features heavily in its marketing material. Optus and TPG (through the Vodafone brand) both offer guarantees regarding their networks' coverage, allowing customers to exit their contracts within a fixed period if they are not satisfied with the coverage available.

3.24. MNOs also make representations regarding their level of investment in coverage, particularly coverage in regional areas.

3.25. In metropolitan areas, and particularly capital cities, coverage tends to be near ubiquitous across all three networks. As a result, competition to increase coverage tends to take place on the fringes of metropolitan areas and in regional and remote areas of Australia.

3.26. Due to lower expected returns on network investment in regional and remote areas versus metropolitan areas, the commercial incentives to deploy network infrastructure in these areas are typically lower than in metropolitan areas.

3.27. The 2021 Regional Telecommunications Review found that there are still connectivity shortfalls in regional, rural and remote Australia, and that while mobile coverage continues to improve, expanding reliable coverage to 'priority areas' such as major transport corridors, disaster-prone communities, tourist areas, and public facilities is becoming more difficult.[31] Similarly, Infrastructure Australia has identified 23 of Australia's 48 regions as having an 'Infrastructure Gap' regarding broadband and mobile connectivity.[32]

3.28. In many areas, it is unlikely that operators would roll out coverage without government co-contributions, such as from the Mobile Black Spot Program or

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30 ACCC, Mobile Infrastructure Report 2022. 'Remote Australia' and 'very remote Australia' refer to the Australian Bureau of Statistics' (ABS) remoteness structure classification categories of the same names. See ABS.

31 Australian Government, Regional Telecommunications Review 2021, pp 16, 32.

32 Infrastructure Australia, Regional Strengths and Infrastructure Gaps March 2022, p 10.

other State or Territory programs. As the frontier of mobile coverage moves to increasingly sparsely populated areas, such programs may need to contribute a greater proportion of the costs of new sites.

MNOs compete with MVNOs and each other on price

3.29. For a given level of network quality at any given point in time, MNOs compete with each other, and to a lesser extent MVNOs, on the price of their services. Historically, retail services have included some form of access charge as well as some form of usage charge, but the majority of plans today include unlimited calls and SMS and a fixed data inclusion, for a fixed price.

3.30. Average advertised prices for retail services have risen in recent years, with providers generally choosing to include 'more for more' in their retail bundles.[33]

3.31. For wholesale mobile services, the pricing structure and level is a key factor in attracting MVNOs to a given MNO's network. The ACCC considers that effective infrastructure competition between MNOs may drive prices for MVNOs down, enabling them to offer more competitive products in downstream retail markets.

3.32. The prices an MNO is profitably able to charge for both retail and wholesale mobile services is determined to some degree by the infrastructure it deploys on its network. The costs of building out mobile networks is capital-intensive, but investments in more efficient use of scarce resources (such as 5G) enables MNOs to offer greater capacity on their networks at lower costs.

Bundled plan inclusions are a key factor of competition

3.33. The retail brands of the MNOs, along with MVNOs, also compete on feature inclusions. The cost of calls and mobile data per unit has fallen significantly over the longer term, and the vast majority of plans available on the market today include unlimited national and mobile calls and texts.

3.34. Data inclusions also continue to grow strongly. Over the period 2016-17 to 2020-21, feature adjusted prices for mobile phone services declined by over 50%.[34] On these factors, providers now advertise primarily on price and data inclusion, i.e. 40 gigabytes (**GB**) for $40 per month.

3.35. The flagship brands of all the MNOs also now offer no additional charges on excess data usage on higher priced plans, a feature also variously called 'endless' or 'infinite' data.

3.36. As with coverage, MNOs are driven to improve the capacity of their networks in order to make more generous inclusions available to retail and wholesale customers. Capacity in mobile networks is a product of site density, spectrum deployed, backhaul capacity, and the efficiency of the network, including technology generation (i.e. 3G/4G/5G, with each subsequent generation making more efficient use of the same intermediate inputs).

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[33] ACCC, Communications Market Report 2020-21, p 31.

[34] ACCC, Communications Market Report 2020-21, p 31.

Providers also compete on the speeds attainable by end-users

3.37. Mobile providers also compete to offer the fastest data speeds over their networks (typically download speeds). This factor has become increasingly important with more plans having significant data inclusions and is an important factor driving the rollout of the MNOs' 5G networks.

3.38. Network speed is primarily driven by site density, the amount of spectrum deployed, and technology generation. As a result, consumers are most likely to see the highest data speeds in major metropolitan areas.

3.39. Providers also advertise speeds available in regional areas. For example, Telstra advertises 'faster speeds in more places', and often highlights the coverage of its 5G network, which many consumers are likely to associate with faster mobile data speeds.[35]

3.40. As with coverage and capacity, the speeds an MNO is able to provide to its customers is driven by the extent and architecture of the underlying infrastructure deployed on their network, including access to spectrum.

5G availability is a current focus of retail and wholesale competition between MNOs

3.41. The ACCC considers that the availability of 5G technology is an increasingly critical focus of competition in the supply of mobile services.

3.42. 5G is the newest mobile technology to be deployed, and operators and vendors claim it represents a step-change in the capability of mobile networks. The wide deployment of 5G will enable enhanced mobile broadband services, as well as other capabilities such as reliable low-latency network connections and mass machine communications.

3.43. 5G also enables the deployment of fixed wireless broadband services on a greater scale due to its more efficient use of spectrum. All three MNOs now offer some form of 5G fixed wireless product. 5G fixed wireless has the potential to allow the vertically integrated MNOs to bypass use of the NBN wholesale network in order to serve retail fixed broadband customers.

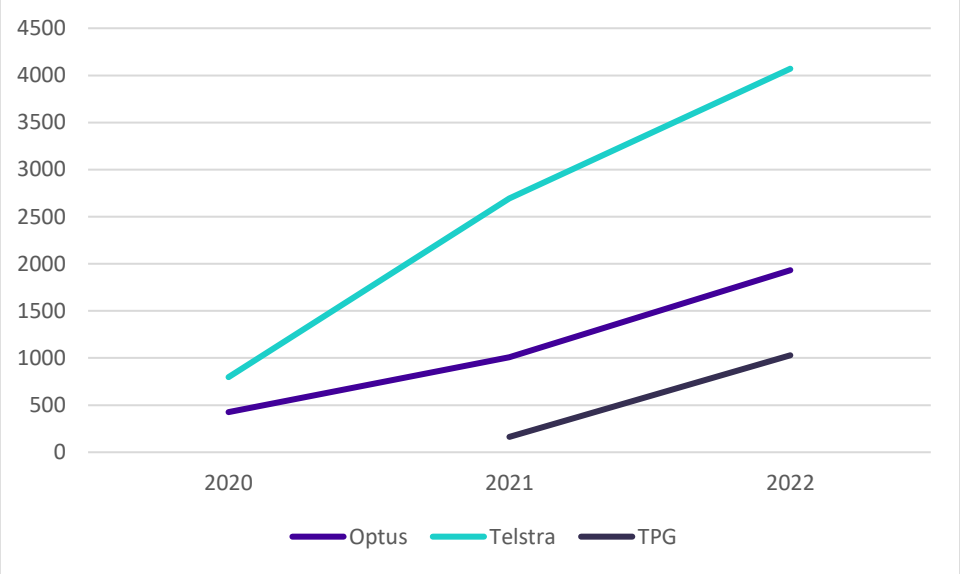
3.44. All 3 MNOs are competing in the supply of retail mobile services on the basis of 5G availability, advertising their 5G coverage, faster 5G speeds, or new capabilities enabled by 5G. The provision of 5G is also a basis on which MNOs compete to acquire wholesale customers. The availability of newer product features, such as 5G, to MVNOs is often delayed until after their introduction on the flagship retail brands of the MNOs.

3.45. Deploying 5G infrastructure allows MNOs to offer retail and wholesale mobile services that make use of greater capacity and speed, and offer new and differentiated services in the future. Where providers compete on speed, network reliability and the availability of 5G, an advantage in the underlying infrastructure allows an MNO to win market share from its rivals.

[35] Telstra, https://www.telstra.com.au/coverage-networks/our-network, accessed 21 September 2022.

3.46. Telstra has a considerable lead in the deployment of 5G, with its 5G network covering more than 80% of where the population resides.[36] Figure 5 below shows the nationwide number of 5G mobile sites by MNO. Telstra continues to lead Optus and TPG in terms of absolute base site numbers.

Figure 5: Total number of 5G sites by MNO



Source: ACCC Mobile Infrastructure Report 2022, p 11.

3.47. Leaders in the adoption of transformative new technologies like 5G can gain an advantage over competitors, with early adopters able to improve productivity and service delivery and ultimately gain market share.

3.48. The ACCC considers that significant first-mover advantages have the potential to influence longer term market structure. Telstra was the first mobile network operator in Australia to deploy widespread 4G services, creating a significant first-mover advantage in its ability to market 4G availability and win new market share.[37]

3.49. Perceptions around network leadership are important for how consumers choose a mobile provider.[38] The ACCC is considering the impact of 5G leadership, and the structural effects of first-mover advantages on the supply of mobile services.

[36] Telstra and TPG response to Optus' interested party submission and ors (Tranche 2) at [108(v)].

[37] Optus submission, 27 June 2022 at [3.56]-[3.57].

[38] Optus submission, 27 June 2022, pp 27-28.

Questions for interested parties regarding the state of competition between MNOs

1. The ACCC seeks any views and submissions on its discussion of the factors affecting competition between mobile network operators in Australia, including:
   a. the importance of each factor (e.g. price, geographic coverage, network reliability, speed) on competition between MNOs;
   b. whether MNOs' network investments (including in expanding coverage or densification of sites, and the acquisition of spectrum) have been influenced by investments by their competitors, and if so, the extent to which they have been;
   c. the extent to which an MNO's geographic coverage in regional areas influences its overall success in acquiring and maintaining customers in metropolitan and regional areas;
   d. the importance of MNOs being able to supply 5G in metropolitan and regional areas in acquiring and maintaining customers, and alternatively, the significance of the competitive detriment to an MNO if it was to not supply 5G;
   e. the degree to which MVNOs competitively constrain MNOs.

4. Key elements of the Proposed Transaction

4.1. The Proposed Transaction contains several features that would likely affect the way MNOs compete in the relevant markets. These are outlined in more detail below.

MOCN services

4.2. Under the MOCN Service Agreement, Telstra will implement a MOCN and use it to provide 4G and 5G services to TPG within the Regional Coverage Zone (including public land mobile, fixed wireless access, Narrowband Internet of Things[39] and NBN failover data services) in exchange for a set of access and usage fees paid by TPG to Telstra.[40]

4.3. TPG will gain access to services provided from around 3,700 of Telstra's mobile sites in the Regional Coverage Zone and the MOCN services will enable TPG to provide public land mobile network telecommunications services, failover mobile services during fixed NBN service outages, and Narrowband Internet of Things services to customers in this zone. Under the agreement, Telstra and TPG will be able to provide fixed wireless access services to customers in the Regional Coverage Zone using pooled 3.6 GHz spectrum.[41]

4.4. The MOCN Service Agreement contains non-discrimination provisions designed to ensure that Telstra supplies the MOCN services so as not to discriminate between TPG end-users and Telstra customers in respect of the level of service (including treatment of network traffic, network performance, quality of service, radio access network features, the classification of incident severity and priority for restoration of services following an incident, incident management and

[39] Narrowband Internet of Things (NB-IoT) is a service offered by MNOs to enable the use of relatively low-power machine communications for uses other than consumer voice or data.

[40] Telstra and TPG application for Merger Authorisation at [9(a)].

[41] Telstra and TPG application for Merger Authorisation at [9(a)].

resolution).[42] This would allow TPG to offer products with the same speed and coverage characteristics as Telstra products in the Regional Coverage Zone.

4.5. There are some carve-outs from the non-discrimination provisions which may impact TPG's capabilities with respect to the MOCN services, including:

- Telstra enterprise customers and customers with "special services" are excluded;[43]
- TPG will not have access to 5G-enabled sites until 6 months after Telstra has activated the sites for 5G;[44]
- Narrowband Internet of Things is excluded[45]; and
- Fixed wireless access will only be supplied to TPG over 3.6 GHz spectrum on a 5G standalone basis, while Telstra can use other spectrum bands to provide fixed wireless access. Within the 3.6 GHz spectrum band, the spectrum which is made available will be shared equally between, and service qualification will be applied on an equivalent basis between individual TPG and Telstra customers.[46]

4.6. Under the proposed arrangements, both TPG and Telstra will continue to operate their own mobile core networks.[47]

Spectrum authorisation

4.7. Under the Spectrum Authorisation Agreement, TPG will authorise Telstra to operate radiocommunications devices in specific parts of its spectrum licence under section 68 of the Radiocommunications Act. Telstra will gain access to certain bands of TPG's spectrum in certain areas across 4G and 5G in the Regional Coverage Zone, which will be pooled with Telstra's spectrum and used by Telstra to supply the MOCN services.[48]

4.8. Telstra will also gain access to certain bands of TPG's spectrum in areas beyond the Regional Coverage Zone (i.e. in areas beyond where 98.8% of the Australian population resides).[49]

4.9. The Proposed Transaction enables Telstra to access a significant amount of additional spectrum, which is an essential input into a mobile network. The aggregation of spectrum will have implications for the quality of service that Telstra (and TPG in the Regional Coverage Zone) can provide, which is a key factor of competition between MNOs.

Site transfer

4.10. Under the Mobile Site Transition Agreement, Telstra will gain access to up to 169 TPG mobile sites that are primarily inside the Regional Coverage Zone. Telstra will either pay TPG a fee or assume TPG's payment obligations for the sites.[50]

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42 Telstra and TPG application for Merger Authorisation at [135].

43 Telstra and TPG response to Optus' interested party submission and ors (Tranche 2), at [32] and [40].

44 Telstra and TPG application for Merger Authorisation at [139].

45 Telstra and TPG application for Merger Authorisation at [140].

46 Telstra and TPG application for Merger Authorisation at [140].

47 Telstra and TPG application for Merger Authorisation, p 7.

48 Telstra and TPG application for Merger Authorisation at [9(b)].

49 Telstra and TPG application for Merger Authorisation, p 7.

4.11. The Applicants submit that the site transfer underpins the continuity of coverage for the MOCN services (and reduces TPG's financial exposure from entering into the Proposed Transaction).[51]

Elements of the Proposed Transaction relevant to competition between MNOs

4.12. The precise nature of the agreements, including terms relating to investment, the amount and structure of fees payable, and the overall quantum of spectrum available to Telstra all have the potential to impact the way in which the MNOs presently compete, and will compete in the future, should the Proposed Transaction proceed.

4.13. Each of the three agreements under the Proposed Transaction involves a set of access and/or usage fees to be paid by Telstra and/or TPG that is likely to impact the basis on which they compete.

4.14. Under the MOCN Service Agreement, TPG pays Telstra a fixed annual charge, charges relating to TPG services in operation and charges per GB, in addition to charges for fixed wireless access, Narrowband Internet of Things and fixed NBN fallback.[52] Under the Spectrum Authorisation Agreement, Telstra pays a quarterly spectrum use fee[53], and under the Mobile Site Transition Agreement, Telstra pays either a fee under existing access arrangements or assumes TPG's payment obligations under the transferred site licences.[54]

4.15. TPG's wholesale payments to Telstra, some of which are variable in nature (i.e. charges relating to services in operation and per GB charges), will impact TPG's costs of providing mobile services and pricing decisions.

4.16. The wholesale revenues Telstra receives from TPG will help to offset losses in Telstra's retail revenue from customers switching to TPG, which could affect Telstra's incentive to compete with TPG and therefore Telstra's pricing decisions and other decisions, including about future infrastructure investment. The extent of this effect will depend on the relative magnitude of additional wholesale revenue and lost retail revenue for each customer that switches from Telstra to TPG.

4.17. More generally, the Proposed Transaction will impact on the future revenues and costs associated with each MNO's infrastructure investments (including Optus), thereby influencing their investment decisions.

4.18. Network sharing can, in certain circumstances, also provide efficiency benefits that may reduce the costs to Telstra and TPG of providing mobile services (further discussed in the public benefits section). This may lead to lower prices or improve the quality of services offered to customers in the market over the longer term, depending on the level of competition between MNOs.

4.19. Changes in the relative quality of services provided by each MNO will impact how consumers respond to retail price changes, including who they might switch to.

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50 Telstra and TPG application for Merger Authorisation at [9(c)].

51 Telstra and TPG application for Merger Authorisation at [10].

52 Telstra and TPG application for Merger Authorisation at [116].

53 Telstra and TPG application for Merger Authorisation at [119].

54 Telstra and TPG application for Merger Authorisation at [9(c)].

Questions for interested parties regarding key elements of the Proposed Transaction

2. The ACCC seeks views and submissions on whether the elements of the Proposed Transaction, if authorised, are likely to impact the way in which MNOs compete, including the impact of:
   a. the non-discrimination provisions under the MOCN Service Agreement on TPG;
   b. the carve-outs to the non-discrimination provisions under the MOCN Service Agreement on TPG;
   c. Telstra gaining access to TPG's spectrum holdings under the Spectrum Authorisation Agreement.

Relevance of overseas network sharing arrangements

4.20. The Applicants submit that MOCN agreements are commonplace internationally, and that MOCN agreements have been found to deliver significant efficiency benefits in the jurisdictions that allow them.[55]

4.21. The ACCC's preliminary view is that there is limited utility in drawing comparisons with network sharing arrangements in other jurisdictions. This is because Australia has a relatively unique geographic environment, with low population density outside metropolitan areas but with a high degree of urbanisation.

4.22. Further, the Proposed Transaction is not what is ordinarily considered a MOCN agreement, and it departs from a traditional MOCN agreement in a number of fundamental respects, including that the Proposed Transaction:

- is not a joint venture, and does not involve joint operation of the radio access network;
- does not utilise a shared investment model; and
- involves the payment of fees, including on a usage basis.

4.23. The ACCC's preliminary view is that these features may significantly alter the Applicants' incentives with respect to investment (both in infrastructure and spectrum), and the imposition of usage charges by Telstra will change TPG's cost structure and competitive incentives. These features also appear to differentiate the Proposed Transaction from any international example that has been brought to the ACCC's attention, or that the ACCC is otherwise aware of.

[55] Telstra and TPG application for Merger Authorisation at [249]; Jorge Padilla expert report at [5.36].

Questions for interested parties regarding international experience

3. The ACCC invites information and submissions on whether and how the experience of overseas network sharing arrangements is relevant to the Proposed Transaction. The ACCC particularly invites any overseas examples of network sharing arrangements (now or in the past) that are comparable to the agreements under the Proposed Transaction, and information on the efficiencies achieved and the impact on competition.

5. ACCC's preliminary views on competitive effects of the Proposed Transaction

5.1. This section first considers what is likely to occur if the Proposed Transaction does not proceed. It then considers potential competitive effects of the Proposed Transaction by comparing the likely state of competition in the future with the Proposed Transaction with the likely state of competition in the future without the Proposed Transaction.

Future with and without the Proposed Transaction

Approach to factual and counterfactuals

5.2. In determining whether to grant authorisation, the ACCC will compare the future in which the Proposed Transaction occurs (the factual), as against the future in which the Proposed Transaction does not occur (the counterfactual).

5.3. The ACCC will have regard to all potential counterfactual scenarios that have a real commercial likelihood of arising. Counterfactual scenarios that are a remote possibility will be given little or no weight.

Counterfactuals that have been proposed by the Applicants, Optus and experts

5.4. Submissions from the Applicants, Optus and their experts have proposed or considered four broad types of counterfactuals for TPG:

- TPG undertaking a full scale build in the Regional Coverage Zone;
- TPG undertaking a more targeted build in the Regional Coverage Zone;
- TPG entering into an arrangement with Optus; and
- TPG entering into a more limited alternative arrangement with Telstra.

5.5. For both Telstra and Optus, the counterfactuals proposed or considered are broadly the status quo, with each continuing its current investment strategy, or either MNO entering into an arrangement (or in the case of Telstra, a more limited alternative arrangement) with TPG.

5.6. The ACCC is considering the commercial likelihood of each counterfactual, and the impacts that each counterfactual situation has on the abilities and incentives of each MNO to compete and invest. The ACCC notes that within each broad type of counterfactual, there are a range of scenarios that could occur (e.g. there are many potential arrangements that TPG could enter into with Optus, and there are many ways TPG could undertake a targeted build). The competitive

significance of the counterfactuals will be influenced both by the broad type of counterfactual and the scenarios that could arise under each broad type.

TPG full scale build counterfactual

5.7. Given its smaller mobile coverage[56] and limited presence in the Regional Coverage Zone[57], TPG may have an incentive to extend its coverage by expanding its infrastructure in the Regional Coverage Zone in the future without the Proposed Transaction. Two possible counterfactuals have been raised in relation to TPG building its own network in the Regional Coverage Zone – a full scale build, in which TPG would seek to match the geographic coverage of Optus and Telstra[58], and a more targeted build, in which TPG would build a limited number of additional mobile sites in the Regional Coverage Zone.[59]

5.8. A full scale build would require TPG to upgrade its existing sites in the Regional Coverage Zone and to complete a large greenfield rollout. TPG submits that there is no real commercial likelihood it would undertake such a full scale build to match (or come close to) Telstra's or Optus' coverage in the Regional Coverage Zone. TPG's submissions note the significant costs and time involved in a full scale build relative to other options.[60]

5.9. TPG's expert Dr Jorge Padilla also considers that there are risks to TPG investing in a full scale build given that TPG would effectively be a late entrant to regional areas and existing Telstra and Optus customers may be reluctant to switch to TPG while its build is in progress and its coverage remains less than that of Telstra and Optus.[61]

5.10. Submissions from other parties also generally suggest that a full scale build by TPG is commercially unlikely:

- Optus' submission does not raise a full scale build by TPG as a potential counterfactual. Optus also submits that it rejects the suggestion that TPG would need to catch up to Telstra's or Optus' number of sites in the Regional Coverage Zone in order to compete.[62]
- Telstra's expert Richard Feasey submits that in a build counterfactual, TPG would likely deploy a limited number of additional sites, because the features of the market which led TPG's predecessors to be unable to replicate the regional networks of either Optus or Telstra remain today and will persist into the future.[63] Pivotel concurs that TPG is unlikely to expand its market share through investment and development of its own standalone network.[64]

5.11. The ACCC also notes that since its entry into the Australian telecommunications market, TPG has not undertaken investment in regional areas on a similar scale to Telstra or Optus.

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56 Telstra and TPG application for Merger Authorisation at [3.2].

57 See Telstra and TPG supplementary map of the 17% Regional Coverage Zone and Jorge Padilla expert report, figure 5.

58 Telstra and TPG application for Merger Authorisation at [47]-[48].

59 Telstra and TPG response to Optus' interested party submission and ors (Tranche 2) at [139].

60 Telstra and TPG Application for Merger Authorisation at [47]-[48]; TPG counterfactual submission at [45]; Iñaki Berroeta statement at [73(a)].

61 Jorge Padilla expert report at [5.36(e)].

62 Optus submission, 27 June 2022, at [6.26].

63 Richard Feasey expert report at [44]-[45].

64 Pivotel submission, 16 June 2022, at [4.4.2].

5.12. Based on the submissions of TPG and other parties, and other available information, the ACCC's preliminary view is that there is not a real commercial likelihood that TPG would undertake a full scale build in the future without the Proposed Transaction. Subject to new evidence supporting a TPG full scale build, the ACCC's preliminary position is to not consider the full-scale build counterfactual further in its analysis.

TPG targeted build counterfactual

5.13. TPG submits that if it could not enter into an alternative network sharing arrangement with an MNO, it would undertake a targeted build of mobile sites in the Regional Coverage Zone.[65] The ACCC considers that TPG would have an incentive to undertake this targeted build to maintain or improve its coverage relative to the other MNOs. TPG's measured investment over the period 2018-2022 in the regional areas seems to suggest that it would also have the ability to undertake this type of targeted build.[66] The ACCC's preliminary view is that there is a real commercial likelihood that TPG would undertake a targeted build in the future without the Proposed Transaction.

5.14. Under this targeted build counterfactual, the ACCC's preliminary view is that TPG would be likely to increase its infrastructure and coverage in the Regional Coverage Zone, with the extent of investment depending on the scope of its build and the returns on investment. The ACCC considers it likely that, in maintaining its network in regional Australia, TPG would be incentivised to continue expanding its coverage over time, for example to cover regional growth or holiday areas or to address congestion issues as they arise.

5.15. By maintaining ownership of all of its active infrastructure, TPG would have a greater ability to innovate and independently differentiate its service offerings in the provision of both retail and wholesale mobile services.

5.16. The ACCC considers it likely that TPG would continue using at least some of its spectrum holdings in the Regional Coverage Zone. However, the ACCC considers that TPG will likely still have unused spectrum and will have the incentive to monetise that unused spectrum. The ACCC is considering how TPG could monetise its spectrum, including which entities would have the incentive to purchase or lease such spectrum.[67] The ACCC's preliminary view is that any monetisation of spectrum by TPG in the future without the Proposed Transaction would likely lead to some efficiencies (in terms of resource allocation) and potentially promote competition in the supply of some services (as the buyers of that spectrum may use the spectrum to introduce competing products). This may also reduce some of the benefits claimed by TPG and Telstra in relation to more efficient spectrum use in the future with the Proposed Transaction.

TPG/Optus agreement counterfactuals

5.17. TPG submits that, if the Proposed Transaction does not proceed, it would consider entering into an arrangement with Optus in the Regional Coverage Zone.[68] Optus similarly submits that TPG would be likely to consider alternative

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65 Telstra and TPG response to Optus' interested party submission and ors (Tranche 2) at [139].

66 ACCC, Mobile Infrastructure Report 2022.

67 Commpete submission, 21 June 2022, p 5. Commpete notes that TPG could make its spectrum available to a tower owner developing a neutral hosting solution.

68 Telstra and TPG response to Optus' interested party submission and ors (Tranche 2) at [139].

network sharing arrangements to expand its mobile coverage.[69] The possibility of a TPG/Optus arrangement was also discussed by the Applicants' experts Richard Feasey, Emma Ihaia and Dr Jorge Padilla, and Optus' expert Greg Houston[70].

5.18. The types of arrangement that have been considered by these experts include:

- **A domestic roaming arrangement** – this may take the form of an updated roaming agreement, where the existing TPG/Optus agreement is renegotiated to extend beyond 3G services.[71]
- **A domestic roaming arrangement followed by active network sharing** – after a roaming agreement for a period of three to five years, TPG and Optus could move to a Multi-Operator Radio Access Network (**MORAN**)[72] arrangement and then a MOCN arrangement, once there is sufficient maturity of 5G site clusters in regional areas.[73]
- **An active network sharing arrangement** – this may take the form of a MOCN or MORAN arrangement.[74]

5.19. The ACCC's preliminary view is that TPG and Optus are likely to have commercial incentives to enter into either a network sharing or roaming agreement with each other. Such an agreement could enable TPG to expand its regional coverage,[75] and/or monetise its spectrum,[76] while also enabling Optus to earn wholesale revenue from its network infrastructure.[77] On this basis, the ACCC's preliminary view is that there is a real commercial likelihood that TPG and Optus would enter into either a network sharing agreement and/or a roaming agreement in the future without the Proposed Transaction.

5.20. The ACCC understands that technical factors relating to spectrum holdings and network infrastructure can impact the type of agreement that can be entered into between MNOs and the likely timing of any agreement. The ACCC is considering this in relation to the likely nature of an arrangement between TPG and Optus.

5.21. The ACCC is still considering the impact of TPG entering into a network sharing agreement or roaming agreement with Optus on TPG's ability and incentive to invest in infrastructure, and on its incentives to exclusively utilise its spectrum holdings in regional Australia.

5.22. The ACCC considers that TPG would likely have more incentive to invest in infrastructure the less it shares Optus' network. On this basis, TPG would likely have more incentive to invest in its own infrastructure in the Regional Coverage Zone under a roaming agreement (for example, to minimise roaming costs), than under a MORAN or MOCN agreement, although incentives to invest would depend on the cost terms of any agreement. The ACCC also considers that, given the size of Telstra's regional network and the degree of sharing of Telstra's network in the Proposed Transaction, TPG would have more incentive to invest in

69 Optus submission, 27 June 2022, at [6.2(c)].

70 Houston Kemp expert report at [21].

71 Emma Ihaia expert report at [97].

72 A MORAN is an arrangement where MNOs share radio access network but not spectrum.

73 Jorge Padilla expert report at [1.6].

74 Richard Feasey expert report at [41]; Emma Ihaia expert report at [100].

75 Telstra and TPG application for Merger Authorisation at [26]-[28].

76 Richard Feasey expert report at [42].

77 Richard Feasey expert report at [66].

infrastructure under any agreement with Optus than it would under the Proposed Transaction.

5.23. Further, the ACCC considers that the more TPG utilises its own infrastructure in the Regional Coverage Zone under an agreement with Optus, the more it will be able to independently innovate and differentiate its services in the area, and the more likely it would be to exclusively utilise its own spectrum.

TPG/Telstra agreement counterfactuals

5.24. Telstra's expert, Richard Feasey, submits that an alternative counterfactual is one where Telstra and TPG enter into some form of more limited arrangement.[78]

5.25. The ACCC notes the Proposed Transaction is the only arrangement that the Applicants have sought authorisation for.

5.26. The ACCC is still considering whether there is any real commercial likelihood of Telstra and TPG entering into a more limited arrangement, the incentives for Telstra and TPG to enter into alternative arrangements in the absence of the Proposed Transaction, and the likely forms such an arrangement could take.

Questions for interested parties regarding the future with and without the Proposed Transaction

4. The ACCC invites views on each of the above counterfactuals, including about:
   a. the commercial likelihood of each counterfactual;
   b. the ability and incentives of each MNO to invest in regional infrastructure in each counterfactual;
   c. the utilisation of spectrum by each MNO, including TPG's ability and/or incentive to monetise any unused spectrum, and which entities (including neutral host providers) would be likely to purchase or lease such spectrum;
   d. technical factors relating to spectrum holdings and network infrastructure that may impact the type of agreement that can be entered into between TPG and Optus in the future without the Proposed Transaction and the likely timing of any such agreement;
   e. TPG's ability to innovate and differentiate its product and service offering under each counterfactual.

Competitive effects of the Proposed Transaction

5.27. The ACCC is assessing how the Proposed Transaction will change the incentives, objectives and decision-making of Telstra, TPG, Optus, and other impacted market participants. As set out in section 3 above, MNOs compete on a range of factors in order to gain an advantage over their rivals. These factors include price and inclusions (this type of competition is referred to as price-based competition), and over the longer term MNOs also compete on quality of service, which is primarily driven by investments in network coverage, densification and the acquisition of spectrum (this type of competition is referred to as infrastructure-based competition). Price-based competition over time is a function

[78] Richard Feasey expert report at [39].

of infrastructure-based competition, as the quality of service that an MNO can offer will determine consumers' willingness to pay for its services, and how firms are able to compete on price and inclusions.

Time period over which to consider competitive effects

5.28. The MOCN Service Agreement has an initial term of 10 years, after which TPG has options to extend the agreement for 2 further periods of 5 years. It also includes a 3 year 'transition-out period'.[79] Therefore, Telstra has no ability to exit the proposed arrangements for up to 23 years unless TPG breaches the MOCN Service Agreement or it expires. If the MOCN Service Agreement expires or is terminated, TPG may request re-installation of its equipment at one or more TPG sites that were transferred to Telstra under the Mobile Site Transition Agreement.[80]

5.29. Each Applicant has a right to terminate the Spectrum Authorisation Agreement on expiration or termination of the MOCN Service Agreement. The Spectrum Authorisation Agreement could continue beyond the term of the MOCN Service Agreement if neither Telstra nor TPG exercised their respective right to terminate the Spectrum Authorisation Agreement. The Applicants submit that this is unlikely to occur as the authorisation of spectrum in the Regional Coverage Zone to Telstra is for use on the MOCN only.[81]

5.30. The ACCC notes that the spectrum licences held by TPG that are relevant to the Proposed Transaction expire between 2028 and 2032,[82] at which point the ACMA may choose to re-allocate the spectrum or reissue the licences.

5.31. At this stage, based on current information the ACCC's preliminary view is that it is appropriate to assess the competitive effects of the Proposed Transaction over the duration of the agreement, which is likely to be 20 years. This timeframe is likely to be particularly relevant when assessing the impact of the Proposed Transaction on the MNOs' longer term investment incentives, given the nature of mobile network infrastructure.

5.32. The ACCC is also considering how much weight to give to short-term competitive effects which are more readily predictable, as against long-term effects which are more difficult to predict with specificity but have the potential to affect the relevant markets more substantially if they eventuate.

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79 Telstra and TPG application for Merger Authorisation at [161]-[162].

80 Telstra and TPG application for Merger Authorisation at [163].

81 Telstra and TPG application for Merger Authorisation at [10].

82 Australian Communications and Media Authority, Reissue of Spectrum Licences, accessed 26 September 2022.

Questions for interested parties regarding the appropriate timeframe

5. The ACCC invites views on the appropriate timeframe over which competitive effects are likely to arise as a result of the Proposed Transaction.
6. The ACCC invites comments on the weight which should be given to short-term and to long-term competitive effects of the Proposed Transaction.

Impacts of the Proposed Transaction on price-based competition

5.33. MNOs cannot quickly improve the quality of their offerings (e.g. network coverage, speed, technology and density). For this reason, at any given point in time, MNOs primarily compete on the basis of price and inclusions for subscribers to their networks.

5.34. TPG has historically made the least investment in its mobile network, but competed aggressively on price, targeting its retail services to more price sensitive metropolitan-based customers and generally pricing at a discount to Telstra and Optus. The ACCC is aware that Telstra charges at a premium to Optus, and that Optus often makes decisions relative to its position to Telstra and, to a lesser extent, TPG.[83]

5.35. The ACCC considers that the Proposed Transaction may impact price competition in various ways relative to the counterfactuals, including:

- initially, by quickly improving the relative quality of service of both TPG and Telstra's offerings; changing TPG's cost structure; and generating wholesale revenue for Telstra, and
- in the medium and longer term, by changing Telstra's cost structure (due to its access to TPG's spectrum); and by changing the investment incentives (and consequently the relative quality of service offerings) of the different MNOs.

5.36. As there are a number of competing aspects of the Proposed Transaction that are likely to impact price competition, the net effect of those is difficult to predict.

5.37. On the one hand, in a future with the Proposed Transaction, TPG will likely be able to immediately offer an improved product to customers who value better regional network coverage, therefore enabling it to better compete for customers it does not currently serve. This may make it a stronger competitor to Optus and Telstra and increase price-based competition, at least in the short term.

5.38. On the other hand, the Proposed Transaction may also reduce price-based competition because:

- Under the Proposed Transaction, TPG will pay Telstra a range of fixed and variable fees for access to the MOCN services. To the extent these are different to wholesale fees TPG might incur in a future without the Proposed Transaction, this will alter the cost structure TPG faces when providing services to consumers. If the Proposed Transaction increases TPG's costs of serving additional consumers, this would likely result in higher retail (and wholesale) prices for its mobile services.

[83] Optus submission, 27 June 2022, at [3.47].

- Under the Proposed Transaction, Telstra will receive wholesale payments from TPG. This could, all else staying the same, lessen the extent of competitive constraint on Telstra's pricing decisions. This is because the wholesale payments from TPG could be expected to reduce the cost (in terms of lost revenue) that Telstra would otherwise incur from customers that switched to TPG following a price rise. The ACCC is considering whether this will lessen Telstra's incentive to compete on price because Telstra may find it more profitable to raise prices, given it could recoup some of the lost margin on customers that switch to TPG following an increase in Telstra's price. This concern would be more likely to arise where the wholesale revenues Telstra receives from TPG are relatively high and vary by customer numbers and/or usage. The ACCC is assessing relevant data provided by the Applicants.

5.39. The magnitude of these effects will differ based on the counterfactual they are assessed against (see discussion of counterfactuals above).

5.40. The ACCC's preliminary view is that TPG's immediate improvement in the quality of its product, and the increased cost to TPG of providing services, will incentivise TPG to raise prices in a future with the Proposed Transaction (although the effect on the quality adjusted price is unknown).

Questions for interested parties regarding price-based competition

7. The ACCC invites views on the impact of the Proposed Transaction on price competition, including:
   a. whether TPG would have the ability and incentive to raise prices under the Proposed Transaction;
   b. whether Telstra would have the ability and incentive to raise prices under the Proposed Transaction;
   c. the impact on Optus' pricing decisions if the Proposed Transaction improves Telstra's quality of service;
   d. the impact of the fees payable by both Telstra (for spectrum use) and TPG under the Proposed Transaction.

Impacts of the Proposed Transaction on infrastructure-based competition

5.41. The ACCC seeks further information on how the Proposed Transaction will change each MNO's ability and incentives to invest in the infrastructure necessary to provide mobile services; and the likely impact this will have on competition over the long-term – particularly with regard to the quality of service of the MNOs' offerings and the prices they charge consumers of these services. A reduction in infrastructure-based competition may cause long-term harm in several relevant markets, including the supply of retail and wholesale mobile services, fixed wireless access services, and for the acquisition of tower infrastructure and spectrum.

MNOs compete through infrastructure investment

5.42. As set out in section 3, MNOs compete over the long-term via their level of investment in mobile network coverage, speed, technology and capacity. This is ordinarily achieved by acquiring (and deploying) additional spectrum, adding additional sites, or upgrading equipment. The MNOs typically make marketing

claims in relation to these network attributes in order to win market share. As also noted in section 3, the MNOs presently offer differentiated network offerings to consumers in terms of network quality of service and price/inclusions:

a) Telstra claims to have the broadest network coverage and continues to make significant investments to expand its mobile network to maintain network leadership. It has stated it is incentivised to achieve network leadership to maintain its price premium. Telstra plans to deliver 95% population coverage for 5G by FY2025, which includes a 100,000 square kilometre increase in its 4G/5G mobile footprint. Richard Feasey's expert report prepared for the Applicants noted that Optus' presence in key locations and market segments has driven Telstra to invest to ensure it maintains network leadership.[84]

b) Optus claims to have made a commitment in 2020 to deploy a competitive national 5G mobile network.[85] Although Optus faces challenges in deploying 5G nationally, including as a result of the Telecommunications Sector Security Reforms[86] (which prevents it using existing 4G Huawei equipment in its 5G deployment), it seeks to differentiate itself by building Australia's fastest 5G network – and invests and markets on this basis.

c) TPG claims to have coverage reaching 96% of the total population (and is extended further by a 3G roaming agreement with Optus). TPG has a high-capacity network in metropolitan centres. TPG has made relatively limited investments in the Regional Coverage Zone in recent years, focusing more on the 5G rollout of its mobile network in metropolitan areas.[87] Consequently, TPG primarily markets to metropolitan-based customers, and charges at a discount relative to Optus and Telstra.

5.43. The ACCC considers all 3 MNOs presently have incentives to invest in the improvement of their networks.

5.44. The ACCC is considering whether the Proposed Transaction may change the ability or the incentive for the MNOs to invest, and how this may impact competition in the supply of retail and wholesale mobile services over the longer term.

TPG – ability and incentive to invest with the Proposed Transaction

5.45. The ACCC considers the Proposed Transaction will alter TPG's future ability and incentive to invest in mobile network infrastructure, particularly in the Regional Coverage Zone. This has also been raised as a concern by several interested parties, including Commpete and NSW Farmers.[88]

5.46. While the Applicants submit that the agreements enable TPG to undertake unilateral infrastructure investment in the Regional Coverage Zone,[89] the ACCC's preliminary view is that it is highly unlikely TPG will make such investments in a future under the Proposed Transaction.

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84 Richard Feasey expert report at [72].

85 Optus submission, 27 June 2022, at [6.15].

86 Department of Home Affairs, Telecommunications Sector Security Reforms (TSSR) Administrative Guidelines April 2022.

87 Telstra and TPG application for Merger Authorisation at [86]-[87].

88 Commpete submission, 21 June 2022, p 6; NSW Farmers submission, 17 June 2022, p 2.

89 Telstra and TPG application for Merger Authorisation at [156].

5.47. TPG will also decommission its sites in the Regional Coverage Zone that are not transferred to Telstra. By decommissioning tower infrastructure in regional areas, the ACCC is concerned that the threat of future network expansion by TPG in the Regional Coverage Zone will be diminished; and that it will be in a weaker position to re-negotiate when seeking to renew contract terms with Telstra in the future. Interested parties, including Pivotel, also raised concerns regarding TPG's competitive position and presence after decommissioning its sites in the Regional Coverage Zone.[90]

5.48. As a consequence, the ACCC expects TPG will become heavily reliant on access to Telstra's network in regional areas in the longer term and will discontinue investment in the Regional Coverage Zone for the foreseeable future.

5.49. To the extent investment decisions by TPG elicit competitive responses by Optus and Telstra, any benefits from such responses would be unlikely to arise in a future with the Proposed Transaction. Commpete and NSW Farmers expressed concern that TPG and in turn Telstra may have less incentive to invest in infrastructure as a result of the Proposed Transaction.[91] The ACCC is similarly concerned that TPG effectively removing itself as an infrastructure-based competitor in the regional areas may reduce competitive tension driving Telstra and Optus to improve the quality and/or pricing of their network offerings to consumers.

5.50. The magnitude of these effects will differ based on the counterfactual they are assessed against (see discussion of counterfactuals above).

5.51. The ACCC notes that material has been put to it suggesting Optus and Telstra are likely to be each other's closest competitors with respect to regional network coverage.[92] This may suggest that the removal of TPG's incentive to invest in regional and remote areas under the Proposed Transaction will have limited effect on the investment decisions of Telstra and Optus. At this point, however, the ACCC remains concerned about the effect on competition in the long-term of the removal of TPG as a potential infrastructure investor in regional and remote areas of Australia; and invites further comment from stakeholders on this point.

Optus – ability and incentive to invest with the Proposed Transaction

5.52. Optus submits that the commercial impact of the Proposed Transaction is to make further investment in regional Australia uneconomic for Optus.[93] It submits the Proposed Transaction will restructure the mobile market such that its offering will slip to have the third best network coverage; and that it will no longer be able to attract customers and revenue to make future investments in additional regional coverage profitable.[94] Optus may expect to lose retail customers because of this.

5.53. Given the weakening of Optus' network offering relative to both Telstra and TPG, Optus may also expect to lose customers to Telstra and TPG at the wholesale level, further reducing expected revenues it could receive if it is to rollout a national 5G network.

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90 Pivotel submission, 16 June 2022, p 4; Anonymous submission, 14 June 2022, p 2.

91 NSW Farmers submission, 17 June 2022, p 2; Commpete submission, 21 June 2022, p 6.

92 See Richard Feasey expert report at [83] and Houston Kemp expert report at [18(e)].

93 Optus submission, 27 June 2022, at [2.15].

94 Optus submission, 27 June 2022, at [7.44] and [7.47].

5.54. Optus submits that the rational strategy for it in these circumstances is to cease or decelerate its regional investment, which may include its 5G network rollout.[95]

5.55. Optus further submits that any reduction in investment by it will reduce competitive pressure on Telstra and result in lesser investment by Telstra given Telstra has a strategy of investment to maintain a network quality premium over Optus. It submits this change in competitive dynamics will result in less investment in regional Australia, and weaker competition on network coverage and quality.[96]

5.56. Several interested parties have also expressed concerns that the Proposed Transaction will reduce Optus' incentives to continue investing in regional areas, and that this may in turn curtail investment by Telstra.[97]

5.57. The ACCC accepts the Proposed Transaction is likely to affect Optus' incentives to undertake further regional investments. At this stage, the ACCC is considering the extent to which the Proposed Transaction is likely to incentivise Optus to:

- accelerate its infrastructure investments in response to the stronger service offering Telstra and TPG will be able to achieve under the Proposed Transaction. For instance, the ACCC is considering whether Optus may seek to increase the density of its mobile sites in the Regional Coverage Zone to mitigate the speed advantage Telstra obtains from having access to contiguous mid band spectrum; or
- decelerate its infrastructure investments due to a worsening of the business case for future investments. That is, compared to a future without the Proposed Transaction, Optus expects further network investments in regional parts of Australia in a future with Proposed Transaction will:
    - generate less revenue (due to the relative improvement of the offerings of Telstra and TPG and the negative effect this would have on its future market share and prices); and/or
    - involve higher costs (especially compared to a situation where it entered a network sharing arrangement with TPG).

Expected returns from future investments may also be greater in a future without the Proposed Transaction if Optus expected to be able to provide wholesale services to TPG in relevant counterfactuals.

5.58. Richard Feasey's expert report prepared for the Applicants acknowledges that Optus imposes a competitive constraint on Telstra and drives Telstra to invest to maintain a lead over Optus.[98] To the extent that the Proposed Transaction leads Optus to decelerate its future infrastructure investments, the ACCC is concerned this may lessen future competitive constraints on Telstra.

5.59. The magnitude of these effects will differ based on the counterfactual they are assessed against (see discussion of counterfactuals above).

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95 Optus submission, 27 June 2022, at [1.22].

96 Optus submission, 27 June 2022, at [1.22] and [7.34].

97 Australian Tower Network submission, 13 June 2022, p 6; Pivotel submission, 16 June 2022, p 7. See submissions from several Optus dealers.

98 Richard Feasey expert report at [81] and [83].

5.60. The ACCC's preliminary view is that Optus will retain some incentive to invest in regional Australia to prevent churn and retain existing market share in a future with the Proposed Transaction. At this stage, the ACCC does not consider it likely that Optus will cease all infrastructure investment in regional Australia if the Proposed Transaction proceeds. However, infrastructure investment is a matter of degree; and the ACCC is considering the extent to which Optus' capacity to invest in regional Australia will be lessened by the Proposed Transaction, the extent to which Optus may lessen its level of infrastructure investment in regional Australia as a result and whether this might, in turn, lead to a lessening of competition in relevant markets.

5.61. The ACCC considers any change in investment strategies adopted by the MNOs will likely affect the level of competition between MNOs over the longer term.

Questions for interested parties regarding the impact on infrastructure competition

8. The ACCC invites views on the impact of the Proposed Transaction on the MNOs' mobile infrastructure investment incentives and how changes to their incentives might impact competition, including:
   a. the impact of the Proposed Transaction on TPG's incentive to invest in regional and remote areas of Australia;
   b. the impact of the Proposed Transaction on Optus' ability and incentive to invest in regional and remote areas of Australia;
   c. the impact Optus reducing its investment in regional Australia would have on Telstra's incentives to invest in regional and remote areas of Australia; and
   d. the timeframe over which the impact on these investment incentives is likely to be felt.

Competition in the wholesale supply of mobile services to MVNOs

5.62. The ACCC is also considering the likely effect of the Proposed Transaction on competition in the supply of wholesale mobile services.

5.63. Under the Proposed Transaction, TPG will be able to provide wholesale mobile services to MVNOs using its own network in metropolitan areas and using the MOCN services in the Regional Coverage Zone.[99] As a result, some MVNOs consider that the Proposed Transaction will enable them to compete more effectively to win customers who live in or travel to regional areas.[100]

5.64. Currently TPG has a relatively small presence in the wholesale market, in part because its limited geographic coverage makes it a less desirable supplier of wholesale services to MVNOs relative to other MNOs.[101] The ACCC is considering whether the Proposed Transaction will improve TPG's ability to offer wholesale mobile services.

5.65. The Proposed Transaction will immediately improve TPG's network coverage and service such that it is a more viable and attractive alternative supplier of wholesale mobile services to MVNOs, at least in the short-term.

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99 Telstra and TPG application for Merger Authorisation at [111].

100 Kogan submission, 13 June 2022, pp 1-2; IMZI submission, 14 June 2022, p 1.

101 Telstra and TPG application for Merger Authorisation at [28] and [44].

5.66. However, in the long-term, the extent of competitive constraint on Telstra and TPG over the provision of wholesale mobile services may be significantly weaker if Optus reduces its infrastructure investment in regional Australia.

Questions for interested parties regarding the impact on wholesale mobile competition

9. The ACCC invites views from MVNOs on the impact of the Proposed Transaction on competition for the supply of wholesale services.

The acquisition of spectrum

5.67. The ACCC considers that the Proposed Transaction may result in a lessening of competition in the primary and secondary markets for the acquisition of radiofrequency spectrum licences, due to a reduction in TPG's incentives to acquire spectrum as well as Optus' investment incentives to roll out its regional 5G network.

5.68. MNOs are unable to supply mobile services without radiofrequency spectrum and therefore spectrum is a critical input into the supply of mobile services. The legal right to use certain frequencies of spectrum is conferred by ownership of spectrum licences, which may be obtained through ACMA allocations, as well as spectrum authorisations such as that contemplated under the Proposed Transaction. The ACMA may set 'limits' in the amount of spectrum that may be purchased by persons at an allocation to achieve certain objectives.[102]

5.69. Currently Telstra, TPG and Optus have strong demand for spectrum licences for use in both metropolitan and regional areas. Telstra, TPG and Optus are all vigorous competitors in acquiring spectrum licences as part of ACMA allocations (the primary market) and they have strong demand for spectrum licences available in the secondary market.

5.70. Demand for spectrum varies for each MNO on the basis of its existing spectrum holdings, its existing network architecture, and the location of the licence available.

5.71. While demand is likely to vary in the primary market in particular on the basis of the particular auction, it could be argued that the Proposed Transaction may reduce the incentives for TPG and Optus to acquire spectrum in the following ways:

- TPG: As a result of the Proposed Transaction, TPG will no longer require spectrum in the Regional Coverage Zone to operate a regional network of its own. TPG may therefore be less likely to bid for spectrum where the licenced area is wholly within the Regional Coverage Zone.
- Optus: A reduction in Optus' incentives to roll out its regional 5G network as a result of the Proposed Transaction may reduce Optus' demand for and incentive to acquire spectrum licences in primary and secondary markets where the licenced area is now outside of Optus' 5G coverage area.

[102] Under the Radiocommunications Act, the ACMA's spectrum management decisions will have the objective of promoting the long-term public interest derived from the use of the spectrum.

5.72. If the ACMA continues to set allocation limits in future auctions, this may enable TPG to acquire spectrum licences in the primary market (depending on how those limits are set). TPG may have an incentive to acquire those licences in the primary market even when they relate to the Regional Coverage Zone, in order to resell or trade them in the secondary market. In addition, the geographic areas of spectrum licences allocated by the ACMA may not accord with the geographic area of the MOCN. To the extent that this is the case, TPG may still have an incentive to acquire spectrum licences covering areas in which it continues to operate its own network to serve increasing data demands of its customers. To the extent Optus' incentives to rollout 5G in regional areas is dampened, Optus may still have incentives to acquire spectrum in regional areas to cater for increasing data demands on its existing network.

5.73. Accordingly, the ACCC considers it likely that TPG and Optus will retain some incentive to acquire spectrum. The ACCC is considering the significance of any change in TPG's and Optus' incentives and whether the Proposed Transaction may result in a lessening of competition in spectrum markets.

Questions for interested parties regarding spectrum

10. The ACCC invites views on the impact of the Proposed Transaction on markets for the acquisition of spectrum licences, including about the impact on TPG's and Optus' incentives to acquire spectrum licences covering regional areas of Australia.

Passive mobile network infrastructure services

5.74. The ACCC is considering the effect of the Proposed Transaction on passive mobile network infrastructure services.

5.75. If there is a reduction in investment incentives in regional areas as a result of the Proposed Transaction, this may in turn lower demand for mobile network infrastructure services (e.g. upgrading existing mobile base sites to be 5G capable or acquiring access to additional towers to expand or densify 5G coverage). This concern has been raised by interested parties, including Australia Tower Network, Optus, and other confidential submissions.[103]

Questions for interested parties regarding tower infrastructure

11. The ACCC invites views on the impact of the Proposed Transaction on the acquisition of mobile network infrastructure services.

Fixed wireless services

5.76. The ACCC is considering the effect of the Proposed Transaction on the supply of fixed wireless access services, a type of fixed broadband service provided by NBN Co, the MNOs and smaller providers. Fixed wireless access services connect households to the internet by transmitting data over radio signals from a tower to the household's antenna. The impact on fixed wireless services was

[103] Australian Tower Network, 13 June 2022; Optus submission, 27 June 2022.

raised as a concern by NBN Co and the Australian Communications Consumer Action Network.[104]

5.77. Under the Proposed Transaction, Telstra and TPG can provide fixed wireless access services to customers in the Regional Coverage Zone using pooled 3.6 GHz spectrum. The spectrum will be shared equally, as will the maximum available capacity to provide fixed wireless access services.[105] However, TPG can only supply fixed wireless access services over 3.6 GHz spectrum and on a 5G standalone basis, while Telstra can use other spectrum bands to provide fixed wireless access services.[106] In addition to having to pay wholesale fees to Telstra, these limitations may restrict TPG's ability and incentive to compete for the supply of fixed wireless access services in the Regional Coverage Zone.

5.78. The Proposed Transaction is likely to impact each of TPG and Telstra's ability to offer fixed wireless access services:

- TPG: TPG is a metropolitan focused competitor, and there is currently limited overlap between Telstra and TPG in the supply of non-NBN fixed wireless access services in regional areas. The ACCC's preliminary view is that irrespective of the Proposed Transaction, in the short term TPG is unlikely to vigorously compete to supply non-NBN fixed wireless access services in the Regional Coverage Zone. However, the ACCC is still considering whether, in the longer term without the Proposed Transaction, TPG would more aggressively pursue non-NBN fixed wireless customers, particularly as a means of monetising its spectrum in the Regional Coverage Zone.
- Telstra: The ACCC considers that the Proposed Transaction, in particular the Spectrum Authorisation Agreement, is likely to improve Telstra's capacity to offer fixed wireless access services in the Regional Coverage Zone and beyond and therefore its ability to compete in the supply of fixed wireless access services, particularly against NBN Co and providers of non-NBN fixed wireless access services.

5.79. NBN Co will continue to have a significant presence in fixed wireless and is currently undertaking a $750 million upgrade program to 5G-enable its fixed wireless network.[107]

5.80. An important issue when considering competition in fixed wireless is the fact that for most customers, NBN is an alternative option that provides a competitive constraint.

Enterprise mobility services

5.81. The ACCC is considering the effect of the Proposed Transaction on the supply of mobile services to enterprise customers. Telstra, Optus and TPG all supply enterprise services and this appears to be an important segment of the market.

5.82. Under the Proposed Transaction, TPG would be able to supply retail-grade mobile services to enterprise customers in the Regional Coverage Zone. However, the ACCC understands that Telstra's non-discrimination obligations

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104 NBN Co. Submission, 14 June 2022; Australian Communications Consumer Action Network (ACCAN) submission, 21 June 2022.

105 Telstra and TPG response to Optus' interested party submission and ors (Tranche 2) at [34].

106 Telstra and TPG application for Merger Authorisation at footnote 23.

107 NBN Co, $750 million investment to 5G-enable nbn Fixed Wireless, accessed 21 September 2022.

under the Proposed Transaction exclude Telstra enterprise customers and customers with 'special services'.[108] This has the effect of giving Telstra enterprise customers preferential access to the network in the Regional Coverage Area. Optus has raised concerns that this limits TPG's ability and incentive to compete for enterprise customers.[109]

5.83. While enterprise-grade services are excluded from the non-discrimination provisions, the Applicants submit that these services are a limited set of special products and a very small number of services nationally.[110]

5.84. The Applicants submit that most enterprise customers nationally – and all TPG's current enterprise customers – use 'retail grade mobile services', which are covered by the proposed MOCN.[111] According to the Applicants, retail customers include consumers, small and medium-sized enterprises, larger enterprises and government customers.

Questions for interested parties regarding fixed wireless services and enterprise mobility services

12. The ACCC invites views and further information on:

a. the impact of the Proposed Transaction on the supply of fixed wireless access services, including the impact on TPG's short- and long-term ability and incentives to offer fixed wireless access services in the Regional Coverage Zone;

b. the impact of the Proposed Transaction on the supply of enterprise mobility services, including the impact on TPG of the exclusion of Telstra enterprise customers and customers with 'special services' from the non-discrimination obligations under the Proposed Transaction.

6. ACCC's preliminary views on likely public benefits and public detriments

6.1. As discussed above, the ACCC may authorise conduct if it is satisfied that either the conduct would not have the effect or likely effect of substantially lessening competition or that the proposed conduct would result, or be likely to result, in a benefit to the public and the benefit would outweigh the detriment to the public that would result, or be likely to result, from the conduct.[112] The tests are alternative: they provide two different bases on which the ACCC may authorise a proposed merger.

6.2. The second test above can be described as a 'net public benefit test'. In applying the net public benefit test, the ACCC examines the benefits and detriments that would result (or be likely to result) from the proposed conduct and then determines whether the likely benefits outweigh the likely detriments.

6.3. Consistent with the Australian Competition Tribunal (the **Tribunal**), the ACCC adopts a broad approach to considering public benefits. The Tribunal has stated that in considering public benefits:

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108 Telstra and TPG response to Optus' interested party submission and ors (Tranche 2) at [32] and [40].

109 Optus submission, 27 June 2022, at [3.77].

110 Telstra and TPG response to Optus' interested party submission and ors (Tranche 2) at [32] and [40].

111 Telstra and TPG response to Optus' interested party submission and ors (Tranche 2) at [31]; Iñaki Berroeta statement at [59(d)].

112 *Application by Port of Newcastle Operations Pty Limited (No 2)* [2022] ACompT 1 at [24].

> …we do not wish to rule out of consideration any argument coming within the widest possible conception of public benefit. This we see as anything of value to the community generally, any contribution to the aims pursued by society including as one of its principal elements (in the context of trade practices legislation) the achievement of the economic goals of efficiency and progress.[113]

6.4. Similarly, the ACCC adopts a broad approach to its assessment of public detriment. This is consistent with the Tribunal which has defined it as:

> …any impairment to the community generally, any harm or damage to the aims pursued by the society including as one of its principal elements the achievement of the goal of economic efficiency.[114]

6.5. In applying the 'net public benefit test', the ACCC assesses all benefits and detriments, not just those related to effects on competition. The ACCC will have regard to any non-trivial competitive or other detriment to the public that would result, or be likely to result, from the proposed conduct. The scope of relevant competitive benefits or detriments is not confined to the 'substantial lessening of competition' analysis required by section 50 of the Act and which applies in the first test for authorisation: under the net public benefit test, a lessening of competition does not have to be 'substantial' to be a detriment to the public that is relevant to the assessment.

ACCC's preliminary views on public benefits

6.6. The Applicants submit that the Proposed Transaction is likely to result in substantial benefits to the public, principally in rural and regional communities, but also to consumers that travel to regional communities. In particular:[115]

a) improved connectivity and service quality in regional and rural areas, which will deliver significant economic, social, health and education benefits for regional and rural communities

b) enhanced innovation, competition and expected choice for consumers in regional and rural areas

c) reduced network costs and more efficient utilisation of infrastructure in regional and rural areas

d) increased impact of Government funding for infrastructure deployment in regional and rural areas

e) environmental benefits from reduced need for physical infrastructure deployment and lower energy requirements.

Questions for interested parties on public benefits

13. The ACCC invites views and any further information in relation to any additional public benefits likely to result from the Proposed Transaction.

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113 *Re Queensland Co-operative Milling Association Ltd* (1976) 8 ALR 481, at 507-8.

114 *Re 7-Eleven Stores Pty Ltd* [1994] ATPR 41-357 at 42,683 (Lockhart J, Prof M Brunt and Dr B Aldrich).

115 Telstra and TPG application for Merger Authorisation at [244].

Network improvements, innovation and increased consumer choice

6.7. The ACCC considers there is significant overlap between the Applicants' first two public benefit claims, so the ACCC is considering these under the heading of 'network improvements, innovation, and increased consumer choice'.

6.8. The Applicants note that the extent of mobile coverage in Australia was a major issue identified in the Regional Telecommunications Independent Review Committee's '*2021 Regional Telecommunications Review – a Step Change in Demand*' report. This report noted complaints about a lack of geographic coverage in remote parts of Australia, but also about inconsistent or patchy coverage in less remote regional and rural areas, where there is a "patchwork" of coverage.[116]

The Applicants' views

6.9. The Applicants submit that the Proposed Transaction will immediately improve connectivity and service quality for TPG and Telstra customers, which in turn delivers significant economic, social, health and education benefits for regional and rural communities such as better access to e-health and remote education services, and adoption of agriculture technology which would in turn lead to innovation for these businesses.

6.10. The Applicants submit that these benefits will be achieved through:

- TPG's immediate access to Telstra's network (with access to 3,700 sites)[117], immediately improving TPG's coverage and service quality – current customer feedback indicates TPG's network quality is poor, particularly due to urban fringe and regional coverage gaps. Under the Proposed Transaction, TPG customers get an immediate increase in 4G coverage and quicker and automatic access to 5G (albeit 6 months from the date it becomes available to Telstra customers). TPG will also be able to offer access to the MOCN as a 'fallback' or 'failover' option for its NBN fixed lines services in the Regional Coverage Zone.[118]
- Improvements to Telstra's coverage in the Regional Coverage Zone – Telstra is considering using TPG's sites under the Site Agreement, which will add some coverage for Telstra customers where Telstra has limited or no coverage.[119]
- Telstra's access to TPG's low band spectrum will improve Telstra's network congestion problems for its regional customers. Network congestion leads to service disruptions – for example, lower quality video streaming or services that rely on high bandwidth or real-time connection like e-health and remote learning becoming unable to be used at busy times. Despite committing to an additional $150 million in investment in its rural and regional network in FY2021-22, Telstra submits that rapid growth in data usage in regional and remote Australia is placing significant capacity demands on its mobile network. Telstra submits that the source of congestion is mostly in the radio access network, which can be addressed though additional spectrum resources or radio access network 'densification' (including through capital

116 Telstra and TPG application for Merger Authorisation at [249].

117 Telstra and TPG application for Merger Authorisation at [274].

118 Telstra and TPG application for Merger Authorisation at [252]-[253].

119 Telstra and TPG application for Merger Authorisation at [254]-[255].

> intensive equipment upgrades by increasing the number of cells over a geographic area). Low band spectrum is well suited to rural areas due to its wider geographic coverage. The Applicants submit that the pooled spectrum under the Proposed Transaction will establish a higher floor in network speed for all Telstra and TPG customers in the Regional Coverage Zone.[120]

6.11. The expert report of Ms Emma Ihaia estimates that the 10% of Telstra's customers with the lowest network speeds (due to congestion) will see an approximately 55% to 65% uplift in speeds under the Proposed Transaction.[121] Ms Ihaia also states that by freeing up resources and capital that would otherwise be used to provide infill coverage to address Telstra's network congestion issues, the Proposed Transaction could potentially bring forward Telstra's extended 4G coverage and 5G coverage.[122]

6.12. The Applicants submit that the Proposed Transaction will also result in public benefits through enhanced competition and expanded choice for mobile and fixed network customers (in competition with nbn) in regional and rural areas.

6.13. The Applicants note that retail mobile customers in rural and regional Australia, currently have a choice of two MNOs – Telstra and Optus. The impact of reduced choice in regional Australia was noted in the 2021 Regional Telecommunications Review report:

> Regional Australians are paying a higher proportion of their income on telecommunications than their urban counterparts due to reduced customer choice in technologies and plans, as well as the need to maintain multiple forms of connectivity where services are unreliable.[123]

6.14. The Applicants submit that the Proposed Transaction will improve choice for customers within the Regional Coverage Zone, and metropolitan customers that travel to those regions, in several ways:[124]

- TPG's coverage will materially increase
- TPG will be able to offer TPG-branded products across its own network and the MOCN
- TPG customers will enjoy a seamless transition between the TPG network and the MOCN, therefore avoiding call and service dropouts
- there is no restriction on TPG wholesaling the MOCN services to MVNOs, which is likely to stimulate retail competition between MVNOs and between MVNOs and MNOs in the Regional Coverage Zone, increasing choice of providers
- TPG has full access to the pooled spectrum on a non-discriminatory basis, allowing TPG to offer services of a competing quality to Telstra.

6.15. Further, the Applicants submit that TPG's ability to access 5G network deployed by Telstra in the Regional Coverage Zone will allow it to offer higher speeds and a much higher quality of service, such as lower latency. This, coupled with the

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120 Telstra and TPG application for Merger Authorisation at [257]-[272].

121 Emma Ihaia expert report at [137].

122 Emma Ihaia expert report at [146].

123 Telstra and TPG application for Merger Authorisation at [283].

124 Telstra and TPG application for Merger Authorisation at [284].

MOCN architecture in which TPG's mobile core is connected to the radio access network, will enable TPG to build its own products and services across the Regional Coverage Zone.[125] Further, the Applicants submit that the Narrowband Internet of Things pricing under the Proposed Transaction, where pricing is banded by the different levels of data volumes transmitted by such devices from low data applications (such as soil moisture probes) to high data applications (such as cattle feeders), will allow TPG to build a range of different products.[126]

6.16. Regarding competition in fixed network services, the Applicants submit that separately, their spectrum holdings can only support a limited number of fixed wireless access services by each of them. By pooling spectrum in the 3.6 GHz band, the Applicants submit the Proposed Transaction will enable them to provide fixed wireless access services in competition with nbn-based retail broadband services. Therefore, the Applicants consider this provides a 'much stronger case' for TPG to offer such services in regional areas, particularly when compared to a roaming agreement which is subject to service quality limitations of the host's network (including congestion) and which usually require a fee per GB to be paid for usage, resulting in high costs.[127]

Interested parties' views

6.17. A number of interested parties agree that the Proposed Transaction is likely to result in public benefits from immediate network improvements, innovation and increased choice for customers within, and travelling to, the Regional Coverage Zone.[128] These interested parties also claimed that the network improvements and improved choice would assist those businesses looking to expand their businesses to regional or rural Australia, as well as those with staff who are required to travel to those areas.[129] It will also ensure network quality and improved data experience in high tourist population areas.[130] This would help maintain an equitable distribution of workforce and population across the country.[131]

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125 Telstra and TPG application for Merger Authorisation at [278].

126 Telstra and TPG application for Merger Authorisation at [280].

127 Telstra and TPG application for Merger Authorisation at [292].

128 **Improved connectivity and quality of service:** See for example public submissions from Bourke Shire Council, Broken Hill City Council, Committee for Gippsland, Coonamble Shire Council, Forum (GREF), Gippsland Regional Executive, Regional Development Australia Southern Inland (RDASI), South West Development Commission, Australian Trucking Association (ATA), Regional Development Australia Peel (WA), NSW Farmers' Association, Victorian Chamber of Commerce and Industry, GSM Communications, Mobile Icon, VBC Brisbane Pty Ltd, VBC Paramatta (Fastserv Solutions Pty Ltd), VBC Perth, IMZI Pty Ltd, Yesbiz Wireless Pty Ltd, Bay Audio, Haris Brkic, NAB, Australian Communications Consumer Action Network (ACCAN), Food and Fibre Gippsland, Jainish Pty Ltd, Mo's Mobiles.

Enhanced innovation, competition and choice: See for example public submissions from Wispar Pty Ltd, NAB, Committee for Echuca Moama, Coonamble Shire Council, Canberra Business Chamber, NSW Farmers' Association, WA Farmers, Charles Sturt University, Air Voice Telecom, GSM Communications, Mo's Mobiles, Teletronics Australia, VBC Perth, VBC Sydney South (Logical Communications Pty Ltd), Andrew Lloyd, Challenger Services, Dylan James, Jonathan Hutchins, Bunbury Geographe Economic Alliance (BGEA), Corangamite Shire Council, Eurobodalla Shire Council, Gippsland Regional Executive, Regional Development Australia Goldfields Esperance (RDAGE), Regional Development Australia Peel (WA), Regional Development Australia Riverina, Kogan, IMZI Pty Ltd, Australian Communications Consumer Action Network (ACCAN), Australian Trucking Association (ATA), Canberra Business Chamber, NFF, RRRCC, TasICT, Trevor Long.

129 See submissions from Vodafone/TPG dealers (Teletronics Australia, Movecom, Mobile Icon). See also submissions from customers of Telstra/TPG (Clive Hawkins, Dylan James, NAB).

130 Canberra Business Chamber submission, 13 June 2022.

131 See submissions from Tech Mahindra Limited and Air Voice Telecom.

6.18. Interested parties also submit that network improvements through continuous coverage would increase safety for TPG customers travelling within and to the Regional Coverage Zone.[132]

6.19. Local governments and industry bodies advocating for farmers also supported the claim that network improvements and faster access to 5G services under the Proposed Transaction would help farmers continue to innovate and increase the uptake of data intensive agriculture technology.[133]

6.20. In contrast, Optus does not agree that the Proposed Transaction is likely to result in public benefits in the form of improved networks, innovation or increased customer choice. In summary, Optus submits:[134]

- any improvements to connectivity and service quality for end-users in the Regional Coverage Zone will be temporary, as neither Telstra or TPG will face real incentives to invest in mobile networks and services in the long-term. This is because TPG will essentially be an MVNO of Telstra, and Optus will have lower incentives to invest in the Regional Coverage Zone if the Proposed Transaction is authorised.
- there is no evidence to suggest that Telstra faces significant network congestion. Optus submits that Telstra has an abundance of spectrum in regional areas, particularly in mid band which is critical for 5G services. Optus considers that Telstra has not been using its mid band spectrum to address congestion in the regional network, and Telstra is set to gain an additional 2x15 MHz of low band spectrum in 2024, which will increase its network capacity (by 2.4 times for 4G and 3.6 times for 5G) in any event.
- TPG's capacity to compete will largely be driven by Telstra's decisions on the quality of the access services that it supplies to TPG under the Proposed Transaction. Optus submits that while the Proposed Transaction gives the impression of mutual decision making and TPG independence, it considers that Telstra largely controls the technical parameters of the supply due to its ownership of the radio access network, which is likely to significantly reduce TPG's capacity to differentiate on service quality or any network-related feature.
- TPG's metropolitan customers might benefit from expanded network coverage under the Proposed Transaction. However, Optus considers TPG is unlikely to invest in regional stores, which regional customers value.

6.21. Similarly, other interested parties also submit that TPG would be no more than another MVNO under the Proposed Transaction, with constraints on implementing its own new service offering due to Telstra approvals being required for radio access network upgrades, and that it would have no interest in acquiring spectrum in the upcoming 2028 spectrum auctions.[135]

6.22. Further, Commpete submits that Telstra has indicated that it will continue to implement its 'T25 Strategy' (to bring 5G mobile connectivity to 95% of

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132 See public submissions from some Vodafone dealers (Air Voice Telecom, VBC Perth, Logical Communications Pty Ltd), Bunbury Geographe Economic Alliance, Kezia Purick MLA, Australian Trucking Association submission.

133 See public submissions from Alliance of Western Councils (NSW), Broken Hill City Council, Committee for Gippsland, Moree Plains Shire Council, Feed & Fibre Gippsland, National Farmers' Federation (NFF) & Regional, Rural and Remote Communications Coalition (RRRCC), WA Farmers, and NSW Farmers Association.

134 Optus submission, 27 June 2022, at [8.3].

135 See submissions from Commpete, Pivotel, Mark A Gregory.

Australians by 2025), regardless of whether the Proposed Transaction is authorised, and it obtains access to TPG's spectrum.[136]

ACCC's preliminary view

6.23. The ACCC's preliminary view is that the Proposed Transaction is likely to result in immediate improvements in each of Telstra and TPG's offerings. Principally, TPG will have greater network coverage or reach, although the extent of the improvement will depend on the relevant counterfactual. Similarly, Telstra will gain access to spectrum that will immediately improve its network quality, although, again, the degree to which Telstra's network quality improves depends on the relevant counterfactual scenarios. The ACCC considers this may increase choice for customers who need coverage in the Regional Coverage Zone. However, the ACCC considers these immediate or short-term public benefits need to be balanced against potential longer term impacts from any reduction in infrastructure-based competition between MNOs (as discussed in section 5).

6.24. The ACCC also considers that the size of the public benefits from network improvements, innovation and increased choice resulting from the Proposed Transaction will depend on:

- the nature, extent and likely duration of existing congestion issues on Telstra's network;
- the likelihood of Telstra making other network improvements to ease any congestion problems absent the Proposed Transaction; and
- the competitive offering of TPG under the various counterfactual scenarios (discussed in section 5 above) if the Proposed Transaction does not proceed.

Questions for interested parties on network improvements, innovation and increased consumer choice

14. The ACCC invites views and further information on:

a. whether there is congestion on the Telstra network, and if so, the nature and extent;

b. to the extent congestion is an issue, the ways outside of the Proposed Transaction in which could Telstra address congestion;

c. what steps Telstra would need to take to relieve any congestion in the Regional Coverage Zone if it obtains access to the pooled spectrum under the Proposed Transaction;

d. the timeline under which Telstra customers within the Regional Coverage Zone would expect to see congestion relief if Telstra obtains access to the pooled spectrum under the Proposed Transaction;

e. whether the Proposed Transaction, if it proceeds, would impact on TPG's ability to differentiate its service offering;

f. the extent to which network improvements, innovation and consumer choice could be enhanced (to the same or some extent) in each of the counterfactuals set out above in section 5;

g. the extent to which these public benefits are likely to endure for the proposed

[136] Commpete submission, 21 June 2022, p 4.

length of the arrangements, which in the ACCC's preliminary view is likely to be 20 years.

Reduced network costs and more efficient utilisation of infrastructure

6.25. There is significant overlap between the Applicants' third and fourth public benefit claims, so the ACCC is considering these under the heading of reduced network costs and more efficient utilisation of infrastructure.

6.26. The Applicants submit the costs of deploying mobile infrastructure are high, with commercial incentives for investing in infrastructure in rural areas becoming increasingly challenging, particularly as increasing demands for data and 5G requirements necessitate denser networks.[137] They claim that as a result of consolidating their infrastructure, they will have cost efficiencies through the reduced network costs and more efficient utilisation of infrastructure within the Regional Coverage Zone.[138]

6.27. The Applicants claim that TPG in particular would benefit from significant cost reductions in expanding its 4G and 5G networks, as well as substantially reducing the time to do so.[139]

6.28. Some interested parties supported these claims of reduced network costs and more efficient utilisation of infrastructure.[140] Other interested parties acknowledged that the Proposed Transaction would likely provide Telstra with savings and benefits and enable it to utilise currently underutilised spectrum in the short-term.[141] However, these interested parties and others also raised concerns of a public detriment in the longer term as a result of Telstra's dominance being further entrenched.[142]

6.29. A number of interested parties also raised concerns about potential detriments to network diversity arising from the consolidation of infrastructure.[143] This issue is discussed in further detail at paragraphs 6.71 to 6.78.

Benefits of network sharing agreements

6.30. The Applicants, and the expert report of Richard Feasey prepared for Telstra, outline that infrastructure sharing arrangements are not new and sharing mobile network assets allows greater efficiencies or economies of scale to be realised, reducing average costs for those sharing the assets.[144] The ACCC's preliminary view of the relevance of overseas network sharing agreements is further discussed above in paragraphs 4.20 to 4.23

137 Telstra and TPG application for Merger Authorisation at [293]-[294]

138 Telstra and TPG application for Merger Authorisation at [286].

139 Telstra and TPG application for Merger Authorisation at [286].

140 See submissions from Coonamble Shire Council, Central Darling Shire Council, Jonathan Hutchins.

141 See submissions from Australian Tower Network and Pivotel.

142 See submissions Australian Tower Network, Commpete, Macquarie Telecom, Anonymous submission, Symbio Holdings Ltd, NSW Farmers Association, Pivotel.

143 See submissions from Australian Communications Consumer Action Network (ACCAN), Australian Tower Network, Jambi Nominees Pty Ltd, KALDER Communications Group Pty Ltd. See also Analysys Mason expert report, p 28.

144 Telstra and TPG application for Merger Authorisation at [262]; Richard Feasey expert report at [11]-[12].

6.31. Mr Feasey states that these benefits can be particularly significant in less densely populated areas where it may otherwise be uneconomical to provide network coverage.[145]

Sharing of spectrum

6.32. Mr Feasey also claims that the sharing or pooling of spectrum can also improve the utilisation of assets that might otherwise remain underexploited, as the Applicants claim is the case with TPG's spectrum. This would allow Telstra to serve demand more quickly and at a lower cost, while allowing TPG to obtain access to Telstra's network and offer services and utilise spectrum that would have otherwise been left unused.[146]

6.33. Further to the points addressed in paragraph 6.11, Telstra's expert Ms Ihaia expects that the pooled spectrum will allow Telstra to avoid the cost of constructing additional sites to alleviate congestion.[147] Ms Ihaia estimates that under the Proposed Transaction, the net present value of Telstra's productive efficiencies would be $130 to $150 million through a reduced need to densify sites to address coverage issues and alleviate congestion on Telstra's 4G network within the Regional Coverage Zone.[148] As addressed in paragraph 6.11 above, Ms Ihaia submits this could allow Telstra to divert that capital investment to other mobile network investments, such as expanding its 4G and 5G coverage, bringing forward the economic benefits associated with that extra coverage.[149]

Reduced network costs

6.34. The Applicants additionally claim that the Proposed Transaction effectively reduces the average cost to Telstra of serving rural and regional areas, by increasing utilisation of radio access network infrastructure and sharing the cost of this infrastructure with TPG.[150]

6.35. The Applicants state that over the longer term, the Proposed Transaction is likely to support future investment by both Telstra and TPG as:

- Telstra's future 5G upgrade costs within the MOCN will be significantly reduced as a result of being shared with TPG; and
- TPG will have a better opportunity to contribute to the development of future generational technologies (including 6G and fixed wireless), either independently or as part of a future network sharing agreement.[151]

The Government's Mobile Black Spot Program

6.36. The Applicants state that the Regional Coverage Zone includes a large number of sites that are funded (or co-funded) by the Government's Mobile Black Spot Program, as they face high costs to deploy due to vast distances, a lack of existing infrastructure, and challenging investment economics with low population

145 Richard Feasey expert report at [11].

146 Richard Feasey expert report at [12].

147 Emma Ihaia expert report at [146].

148 Emma Ihaia expert report at [149]-[150].

149 Emma Ihaia expert report at [144].

150 Telstra and TPG application for Merger Authorisation at [321(b)].

151 Telstra and TPG application for Merger Authorisation at [287].

density.[152] The Applicants claim around three quarters of all existing and planned Mobile Black Spot Program sites are operated by Telstra and would immediately receive the benefit of additional competitor coverage from TPG, with the Government's co-investments instantly stretching further at no extra cost and with no action required by government.[153]

6.37. Similarly to the point made in paragraph 6.11, Ms Ihaia states that a public benefit would arise from some government funding that otherwise would have been spent on alleviating congestion instead being spent on extending mobile coverage in regional or remote areas.[154] Ms Ihaia estimates that the productive efficiencies in a scenario with sites co-funded by the Government would be higher than the $130 to $150 million number quoted above in paragraph 6.33.[155]

6.38. Interested parties raised concerns that following the Proposed Transaction, effectively only two MNOs would be bidding for Government Mobile Black Spot Program funding in the Regional Coverage Zone, as TPG would have no incentive to further invest in its own sites within the Regional Coverage Zone.[156] This would increase the share of Mobile Black Spot Program funding being delivered to Telstra, further entrenching Telstra's dominance in the Regional Coverage Zone.

ACCC's preliminary views

6.39. The ACCC's preliminary view is that it is likely some efficiencies will be realised in relation to costs of regional network infrastructure brought about by consolidation, including the more efficient use of spectrum. However, the extent to which this is likely to result in public benefit needs to be assessed against any likely loss such consolidation may bring about to operators' independence and control of their networks, their ability to differentiate their services, and the impact on their incentives to invest further within the regional area in which consolidation occurs.

6.40. As discussed at section 5, there are a number of likely commercially realistic scenarios that may occur if the Proposed Transaction does not proceed. Some of these scenarios may involve TPG entering into commercial arrangements that could also result in consolidation of infrastructure.

6.41. Regardless of what happens in the future without the Proposed Transaction, there has been little evidence provided to the ACCC about the likely ongoing costs of integrating Telstra and TPG's network and spectrum pooling that may offset any likely cost savings from infrastructure consolidation under the Proposed Transaction.

6.42. In addition, it is not clear the extent to which any cost savings arising from consolidating infrastructure will be passed through to the public, with some interested parties making submissions on this point.[157] Optus submits it is likely these cost efficiencies will benefit Telstra, as it is able to entrench its network dominance in regional and rural Australia through its access to disproportionate amounts of low and mid band spectrum, and that Telstra will have no real

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152 Telstra and TPG application for Merger Authorisation at [288].

153 Telstra and TPG application for Merger Authorisation at [290].

154 Emma Ihaia expert report at [147].

155 Emma Ihaia expert report at [151].

156 See submissions from Australian Tower Network, Mark A Gregory, Paul Budde Consultancy.

157 Pivotel submission, 16 June 2022 at [4.61].

incentive to utilise this spectrum efficiently or invest in technologies that maximise spectral efficiency.[158]

6.43. In a situation where these cost savings are retained, or largely retained by the Applicants, they may be given less weight in the ACCC's assessment as those benefits will only flow through to a limited number of members in the community.

Questions for interested parties on reduced network costs and more efficient utilisation of infrastructure

15. The ACCC invites views and further information on:

a. the magnitude of the cost savings likely to be achieved from consolidating infrastructure under the Proposed Transaction, and where any costs savings are likely to flow;

b. the extent to which reduced network costs or more efficient utilisation of infrastructure could be enhanced (to the same or some extent) in each of the counterfactuals set out above in section 5;

c. what initial and ongoing costs Telstra and TPG are likely to incur under the Proposed Transaction to achieve this consolidation.

Environmental benefits

6.44. The Applicants expect that the Proposed Transaction will deliver environmental benefits such as reduced energy use and reduced visual pollution as a result of TPG decommissioning sites and not building new sites in the Regional Coverage Zone.

6.45. Telstra estimates that average energy usage for a typical mobile site is around 25 MWh per annum. The vast majority of Telstra's mobile sites use grid-supplier power, with a very small number of sites relying instead on solar panels combined with battery, solar panels combined with diesel generator, or a continuously running diesel generator. By reducing site duplication, radio access network sharing will reduce the strain on electricity network infrastructure in regional and rural areas, and reduce carbon emissions.[159]

6.46. The expert report of Ms Emma Ihaia notes that the size of avoided emissions in future years from avoiding the operation of at least 550 existing sites in the Regional Coverage Zone will depend on a number of factors such as changes in the energy consumption of cell-site equipment, changes in how much grid-supplied electricity is generated using renewables, and changes in TPG's use of renewable energy at its sites (such as solar).[160]

6.47. Ms Ihaia also notes that reduced carbon emissions are likely to result from the Proposed Transaction by avoiding the energy and resources used to maintain the sites, produce and transport replacement equipment and, at the end of the asset lifecycle, recycling or disposing of that requirement.[161]

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158 Optus submission, 27 June 2022, at [5.27].

159 Telstra and TPG application for Merger Authorisation at [329].

160 Emma Ihaia expert report at [162].

161 Emma Ihaia expert report at [162].

6.48. Further, the Applicants submit that more efficient utilisation of existing radio access network infrastructure, and reduced need for duplicative infrastructure, is also likely to deliver visual amenity benefits. “Visual pollution” from mobile towers and other radio access network infrastructure is often cited as a source of community concern in relation to increased network deployment. The Proposed Transaction can partly address this concern by reducing the need for duplication of radio access network infrastructure in regional and rural areas.[162]

6.49. While accepting the potential for the Proposed Transaction to deliver environmental benefits, Optus’ expert, CEPA, notes that the Applicants do not elaborate on how these benefits compare to what could be achieved in other agreements, including passive sharing agreements and arrangements with tower companies to share physical infrastructure.[163]

6.50. The Coonamble Shire Council and Jainish Pty Ltd referred to the potential for the Proposed Transaction to deliver environmental benefits in their submissions to the ACCC but provided no additional detail.[164]

6.51. The ACCC’s preliminary view is that while environmental benefits may be realised through the Proposed Transaction, it is not clear how significant they will be.

Questions for interested parties about environmental benefits

16. The ACCC invites further views and information about whether environmental benefits are likely to flow from the Proposed Transaction and their magnitude, compared to the different counterfactual scenarios (discussed in section 5).

ACCC’s preliminary views on public detriments

6.52. As noted at paragraph 6.4, the definition of public detriment is broad and can include any impairment to the community generally and any harm or damage to the aims pursued by society.

6.53. The ACCC considers the most significant detriments from the Proposed Transaction are likely to be its effects on competition. These are discussed in detail in section 5.

6.54. In addition to the competitive detriments which may result, the ACCC is also considering whether there are other effects that may give rise to public detriments, including:

- effects of spectrum concentration on long-term industry structure;
- wider economic effects;
- reduced network diversity in regional areas; and
- employment impacts.

[162] Telstra and TPG application for Merger Authorisation at [330].

[163] CEPA expert report at [62].

[164] Jainish Pty Ltd submission, 14 June 2022, p 1; Coonamble Shire Council submission, 9 June 2022, p 1.

Questions for interested parties on public detriments

17. The ACCC invites views and any further information in relation to any additional public detriments likely to result from the Proposed Transaction.

Effects of spectrum concentration on long-term industry structure

6.55. Some interested parties have raised concerns that the Proposed Transaction would effectively concentrate spectrum holdings in regional and rural areas to Telstra and TPG. Further, some interested parties consider that underutilised spectrum should not be made available to the dominant operator, and that under the Proposed Transaction, the Applicants would be circumventing the ACMA's spectrum limits which is contrary to the design of previous auction processes. Combined with Telstra's 6 month first-mover advantage for 5G services, this would allow Telstra to increase its market share if TPG were to not develop a substantial regional customer base.[165]

6.56. The Australian Communications Consumer Action Network (**ACCAN**) notes that while the pooling of spectrum by Telstra and TPG in regional areas may enable improvements to mobiles services, this needs to be balanced against potential long-term implications. ACCAN expressed concern about access to scarce telecommunications spectrum resulting in a significant increase in market power to Telstra, and a lessening of competition across the sector.[166]

6.57. Similarly, Symbio Holdings submits the Proposed Transaction would effectively hand Telstra a large share of low band regional spectrum, thereby circumventing the allocation limits imposed by the ACMA in spectrum auction rules. This would result in virtually all low band spectrum being held by Optus or Telstra and is likely to foreclose entry by new and innovative players in the market.[167]

6.58. Australian Tower Networks also submits that the ACMA's spectrum allocation limits are based on ensuring the long-term public interest. The Proposed Transaction, through providing additional spectrum to Telstra in excess of previous allocation limits, circumvents this process.[168]

6.59. Optus submits the Proposed Transaction will result in Telstra's combined spectrum holdings amounting to around 65% of the total spectrum available in Australia (across all spectrum bands). This figure compares to around 46% of spectrum currently held by Telstra absent the Proposed Transaction. Therefore, Optus submits the proposed spectrum arrangements will significantly impact spectrum distribution between MNOs and create a permanent market distortion in Telstra's favour.[169] In low band spectrum (which is critical for MNOs to provide adequate coverage of high-speed mobile broadband), Optus submits that under the Proposed Transaction, Telstra's low band holdings will represent 66% of all available low band spectrum.[170]

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165 NBN Co submission, 14 June 2022.

166 ACCAN submission, 21 June 2022, p 5.

167 Symbio Holdings submission, 21 June 2022, p 1.

168 Australian Tower Network submission, 13 June 2022, p 3.

169 Optus submission, 27 June 2022, at [5.9].

170 Optus submission, 27 June 2022, at [5.17].

6.60. In response to Optus' spectrum concentration figures, the Applicants referred to the expert report of Aetha which concluded that Optus has a small bandwidth advantage over the Applicants in the Regional Coverage Zone. In particular:

> …combining Telstra's spectrum and TPG's spectrum in the MOCN is an improvement compared to Telstra on a standalone basis. However, the MOCN remains inferior to Optus on this measure when considering total mobile spectrum below 6 GHz, and when considering only spectrum below 3 GHz and only spectrum below 1 GHz.[171]

6.61. More generally, in relation to concerns about the spectrum pooling arrangements under the Proposed Transaction, the Applicants clarify that Telstra does not have the rights of use and control over the TPG spectrum like what would occur under a standalone spectrum authorisation. Instead, details of the Proposed Transaction include:[172]

- Telstra can only use TPG's spectrum in the Regional Coverage Zone; and
- the Applicants have equivalent rights to access the pooled spectrum in the Regional Coverage Zone.

6.62. In response to concerns raised by interested parties that the Proposed Transaction enables Telstra to breach the competition limits set in previous auctions by the ACMA, the Applicants submit:[173]

- the competition limits for spectrum licences only apply to the auction process and their purpose is to ensure that all bidders have an opportunity to acquire spectrum;
- the competition caps do not apply in the secondary market as they may constrain the operation of this market and assessment under section 50 of the Act was considered a more appropriate safeguard; and
- TPG's and Telstra's spectrum is being pooled for shared use, and it is 'oversimplistic' to add TPG's spectrum to Telstra's existing spectrum and conclude that the aggregate exceeds a competition limit applied to one party.

ACCC's preliminary view

6.63. The ACCC is considering the impacts of increased concentration of spectrum ownership in regional areas as a result of the Proposed Transaction. The ACCC considers that an increasing concentration in the ownership of regional spectrum may form a public detriment. Spectrum is a scarce and valuable resource, and a critical intermediate input into all wireless networks. Without sufficient access to spectrum, potential operators are unable to offer services in downstream markets and compete with incumbents.

6.64. There is value to a spectrum licensee in keeping this critical intermediate input from its rivals. In doing so, a licensee can limit the amount of competitive constraint its rivals may exercise in the downstream markets, ranging from impacting its rivals' costs to complete foreclosure.

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171 Aetha expert report, p 21.

172 Telstra and TPG response to Optus' interested party submission and ors (Tranche 2) at [58].

173 Telstra and TPG response to Optus' interested party submission and ors (Tranche 2) at [60].

6.65. As discussed above, the Radiocommunications Act provides for the sale or third-party authorisation of spectrum licences, creating the conditions for a secondary market for spectrum to arise. The ACCC considers that a healthy secondary market for spectrum licences allows spectrum to move to its highest value use and allows for the deployment of new and innovative services over time. This includes situations in which the ACMA has imposed allocation limits on the auction of a band on the advice of the ACCC.

6.66. However, the ACCC is concerned that very concentrated holdings of spectrum create a disincentive for incumbent licensees to dispose of licences surplus to their technical or commercial requirements and create an incentive to 'lock up' this scarce resource. The ACCC is considering the ways in which the Proposed Transaction increases the concentration of spectrum holdings through the third-party authorisation, and the impacts this may have over the longer term on industry structure.

Questions for interested parties on the effects of spectrum concentration on long-term industry structure

18. The ACCC invites views and further information about the possible impacts of the Proposed Transaction, particularly as a result of the pooling of spectrum holdings, on the long-term structure of the industry.

Wider economic effects

6.67. Optus submits that there will be considerable public detriment flowing from a lessening of price tension in the mobile market as a consequence of TPG's prices being dictated by access costs set by Telstra, and where Optus claims it will provide less competitive constraint to Telstra.[174]

6.68. In addition to higher prices for consumers and lower service levels, Optus submits that the Proposed Transaction will result in a loss of $55 billion in foregone economic growth over the decade to 2030, with the loss of economic activity and jobs representing a major public detriment.[175]

6.69. In contrast, Telstra's expert Emma Ihaia estimates that the economic benefits of the proposed transaction could be in the range of billions of dollars over a 10-year period,[176] and the Applicants submit that Optus' claim of economic costs of this scale does not withstand serious scrutiny.

6.70. The ACCC's preliminary view is that little weight should be accorded to either of these claims. These types of general claims do not measure changes to economic surplus or welfare and lack transparency, accuracy, or precision in their calculation.

Reduced network diversity

6.71. A number of interested parties claim there are public detriments arising from the proposed consolidation of infrastructure, with network diversity being a benefit during disasters. They claim that reducing communications infrastructure across

[174] Optus submission, 27 June 2022 at [2.25]

[175] Optus submission, 27 June 2022 at [2.26], [8.25]-[8.37]

[176] Emma Ihaia expert report at [124].

the country would impact rural communities when they need to connect with emergency services, family and community support.[177]

6.72. Optus in particular submits that recent flood and fire disasters have demonstrated the value of having multiple resilient mobile networks, and that the Proposed Transaction would cause significant public detriment in removing key network resiliency.[178]

6.73. Optus states there are many examples of Australians relying on the Optus or TPG mobile networks[179] when the Telstra network was down. Optus and ACCAN outline concerns that TPG's decommissioning of its remaining sites in the Regional Coverage Zone will involve an immediate reduction in network resilience.[180]

6.74. Additionally, Optus submits this presents a long-term threat to public safety that would be difficult to reverse, and that regional Australians will face the real prospect that when the Telstra network is down there will be no, or at best, limited communications as TPG will be wholly reliant on the Telstra network.[181]

6.75. Kezia Purick MLA, a member of the Northern Territory Legislative Assembly, submits that it is critical that emergency fire services in the region have access to high quality and reliable telecommunications services, which is critical for the survival of residents and firefighters, and considers that the Proposed Transaction would assist in this.

6.76. In their responses to submissions from Optus and other interested parties, the Applicants stated that mobile coverage outages during natural disasters are principally caused by outages in the electricity network feeding an individual site and back-up generators running out of fuel. Additionally, the remaining TPG sites that will be decommissioned are nearby the Telstra sites with substantially similar coverage. The Telstra site will already be capable of providing redundancy to other networks, and due to proximity, the same natural disaster, such as a bushfire, is likely to take out both sites. The Applicants consider that in either case, retaining the TPG sites does not add much redundancy in the event of natural disasters.[182]

6.77. The Applicants state that the only instance where mobile networks offer redundancy is an emergency where a mobile phone user seeks to make a 000 call, and in these instances, the user's phone will connect to the network of another MNO if necessary. They additionally note 'failover' of emergency 000 calls between networks is used in extreme circumstances, and the decommissioning of TPG's sites is unlikely to impact the ability of Optus and Telstra customers to make 000 calls.[183]

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177 See submissions from Australian Communications Consumer Action Network (ACCAN), Australian Tower Network, Jambi Nominees Pty Ltd, KALDER Communications Group Pty Ltd. See also Analysys Mason report, p 28.

178 Optus submission, 27 June 2022, at [2.23].

179 Optus submission, 27 June 2022, at [2.23].

180 Optus submission, 27 June 2022, at [8.10]; Australian Communications Consumer Action Network (ACCAN) submission, 21 June 2022, p 4.

181 Optus submission, 27 June 2022, at [2.23] and [8.11].

182 Telstra and TPG response to interested party submissions (Tranche 1), pp. 31-32; Telstra and TPG response to Optus' interested party submission and ors (Tranche 2), at [179].

183 Telstra and TPG response to Optus' interested party submission and ors (Tranche 2) at [180].

6.78. The Applicants further submit that sharing sites in the Regional Coverage Zone will improve the industry's ability to recover when a natural disaster affects networks, as there is a scarcity of portable generators in Australia, and shared infrastructure would lessen the demand for these resources. Combined with less variations in access and power to deal with incidents, this would lead to quicker recovery times.[184]

Questions for interested parties on network diversity

19. The ACCC invites views and any further information in relation to any reduced network diversity likely to result from the Proposed Transaction.

Employment impacts

6.79. Optus dealers submitted that the Proposed Transaction would have a negative impact on regional jobs, with Optus stores potentially closing if a significant amount of its customer base was lost as a result of the Proposed Transaction.[185]

6.80. Vodafone dealers meanwhile submitted that the Proposed Transaction would allow businesses, including Vodafone dealers, to set up in regional areas and provide local jobs and business opportunities in regional and rural areas.[186]

6.81. As mentioned in paragraph 6.20 above, Optus considers that from its experience, regional customers value a visible presence from their MNO, such as having a store in a local town. Optus submits it is highly unlikely that TPG will invest to develop this localised presence.

Questions for interested parties on employment impacts

20. The ACCC invites views and any further information in relation to any employment impacts likely to result from the Proposed Transaction.

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184 Telstra and TPG response to Optus' interested party submission and ors (Tranche 2) at [181].

185 See for example public submissions from Jambi Nominees Pty Ltd, KALDER Communications Group Pty Ltd, Michael Koch Pty Ltd, Redial Pty Ltd, Stephen Hains, Wispar Pty Ltd, Your Choice Communications Pty Ltd.

186 See for example public submissions from Mobile Icon, Movecom, Teletronics Australia, VBC Brisbane Pty Ltd.