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Effect of declaration on competition in A2P SMS markets

A report for Pivotel

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Executive summary

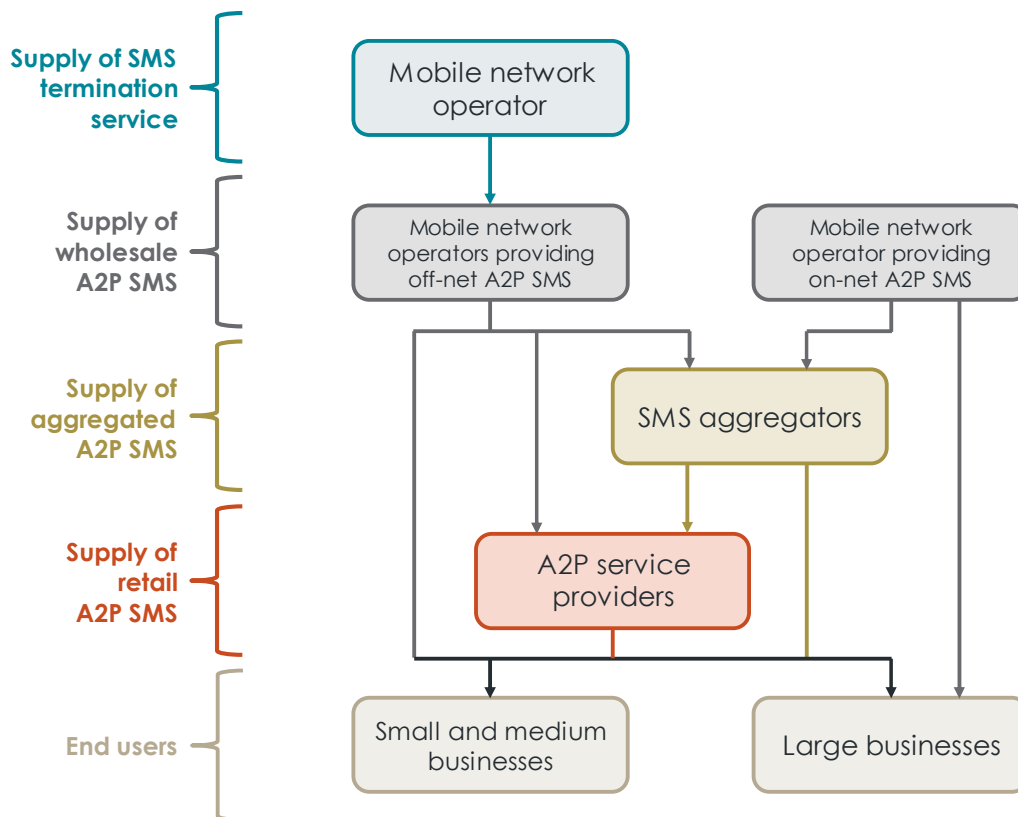
1. In 2023, the Australian Competition and Consumer Commission (ACCC) commenced a public inquiry into the declaration of the domestic mobile access terminating service (MTAS). As part of its inquiry, it is considering whether it should declare an MTAS for short message services (SMS) under Part XIC of the *Competition and Consumer Act 2010* (CCA).
2. In this context, we have been asked to provide our opinion in relation to the likely effect of declaration of an MTAS for SMS on competition in the relevant downstream markets, specifically in relation to application-to-person (A2P) SMS services.

Background

3. Mobile terminating services are provided by mobile network operators (MNOs), including Telstra, Optus, TPG and Pivotal in Australia. SMS termination services are required for an MNO to deliver an SMS from an end-user on its network to an end-user on another MNO's network.
4. A2P SMS is a category of SMS that involves the transmission of a message from a software application to a subscriber on a mobile network. It is used by small, medium and large businesses that communicate with consumers, staff members or stakeholders via SMS to provide information such as appointment or reservation reminders, delivery notifications, welfare checks, two factor authentication, password resets and marketing.
5. There appear to be limited viable alternatives to A2P SMS for end-users in Australia, despite over-the-top (OTT) messaging services providing a viable alternative for P2P SMS. This is likely to be largely due to the ubiquity of SMS.
6. MNOs can deliver A2P SMS messages to customers by way of *on-net* or *off-net* supply depending on the need for interconnection services between customers on different networks, ie:
 - a. **off-net supply** involves an MNO delivering SMS messages to a customer's device on another network, meaning the MNO must acquire SMS termination services from the receiving MNO, which controls access to its directly connected customers; while
 - b. **on-net supply** involves an MNO delivering SMS messages directly to a customer's device that is connected to its network, meaning there is no need for interconnection between networks and therefore SMS termination services.
7. Accordingly, SMS termination services are not an essential input for the supply of A2P SMS. However, each MNO has a monopoly over access to its directly connected customers by consequence of the requirement for firms to acquire either on-net supply or SMS termination services for the wholesale supply of A2P SMS.
8. There are four key elements to the supply chain for A2P SMS services, ie:
 - a. the supply of SMS termination services by MNOs to MNOs for off-net supply of A2P SMS;
 - b. the supply of wholesale A2P SMS services by MNOs to SMS aggregators;
 - c. the supply of wholesale aggregated A2P SMS services by MNOs or SMS aggregators to retail suppliers of A2P services or direct to large end-users; and
 - d. the supply of retail A2P SMS services to end-users, ie, small, medium, and large businesses.

9. Figure E 1 below sets out the principal elements in the supply chain for A2P SMS services.

Figure E 1: Application-to-person SMS supply chain and market participants



10. In 2014, the ACCC decided that the declaration of voice and SMS termination services was in the long-term interests of end-users and declared the services. The final access determination (FAD) commenced in January 2016, reducing the SMS termination charge to 0.03 cents per message.
11. In 2019, the ACCC allowed the declaration of MTAS for SMS to lapse because declaration was no longer considered to be in the long-term interest of end-users. The deregulation of prices took effect from January 2020 and the service has not been subject to access obligations since that time.
12. The ACCC is now considering whether to extend the declaration of the MTAS for voice and include MTAS for SMS as a declared service.

Market definition

13. The purpose of defining markets in this report is to understand whether competition is likely to be promoted in related markets in a future with declaration of SMS termination charges, relative to a future without declaration of SMS termination charges.
14. In our opinion, the appropriate markets within which to examine the competitive effects of declaration of the MTAS for SMS are:
- the supply of A2P SMS termination services offered by each MNO for delivery of messages to subscribers on their respective networks in Australia;
 - the supply of wholesale A2P SMS services for the delivery of A2P messages on a single network currently offered as off-net services or on-net services by MNOs to SMS aggregators in Australia;

- c. the supply of wholesale aggregated A2P SMS services for delivery of A2P messages across all networks offered by some MNOs and SMS aggregators to retail A2P service providers in Australia; and
 - d. the supply of retail A2P SMS services currently offered by MNOs, SMS aggregators and other A2P service providers to end-users, such as small, medium and large enterprises, in Australia.
15. Notably, in our opinion, there is a separate market for SMS termination services for A2P messages relative to P2P messages on each MNO's network. The prices of P2P SMS termination services do not constrain the prices of A2P SMS termination services because each MNO:
 - a. has market power in the context of SMS termination services;
 - b. can sort customers based on how much they are willing to pay for SMS termination services; and
 - c. can prevent resale or arbitrage between SMS termination services sold for A2P and P2P purposes.
16. Our definition of the markets for SMS termination services specifically for A2P purposes is narrower than the definition of the wholesale markets for SMS termination services set out by the ACCC in its 2019 decision on declaration.
17. Additionally, in our opinion, the narrowest reasonable product dimension of the retail market is the supply of retail A2P SMS services, ie, the provision of services to end-users, such as small, medium and large businesses, enabling them to construct and send SMS messages from an application to their customers. Alternative A2P messaging services are excluded from this market because there is likely to be a limited degree of substitutability between A2P SMS and other A2P messaging options, such as OTT services, in Australia.

Effect of declaration on competition

18. In our opinion, it is likely that:
 - a. in a future with declaration, the ACCC is likely to determine a regulated price for SMS termination services on the basis of the cost of providing the service as at the time of regulation, requiring MNOs to provide access to those services at the regulated price; and
 - b. in a future without declaration, MNOs will not be subject to regulated prices for SMS termination services and will be able to set those service charges at a level of their choice given market conditions.
19. We recognise that MTAS for SMS has not been a declared service since deregulation took effect in January 2020. This implies a future without declaration reflects circumstances in which the status quo is maintained. However, the structure of the market without declaration in the future will not necessarily be the same as it is now because changes in competitive conditions take time to influence market structure and competition.
20. As such, we undertake a forward-looking assessment of a future continuing without declaration and consider the likely outcomes and implications for competition.
21. In a future without declaration, MNOs are likely to raise A2P SMS termination charges above the cost of providing the service for at least some rival MNOs because they will have the *ability* and *incentive* to do so.
22. In a future without declaration, each major MNO has the ability to set A2P SMS termination charges substantially above a competitive, cost-based level without losing substantial sales, because:

- a. SMS termination services are an essential input for off-net A2P SMS services; and
 - b. MNOs have monopoly control over the provision of wholesale on-net A2P SMS services on their respective networks.
23. In a future without declaration, each MNO has an incentive to raise A2P SMS termination charges above the competitive level because:
- a. it will maximise profits earned on the supply of termination services, or the supply of on-net services as a substitute;
 - b. it will be able to expand and increase its profits in the downstream wholesale A2P SMS market for the delivery of A2P messages on its own network; and
 - c. it will be able to expand and increase profits in the downstream wholesale aggregated A2P SMS market for delivery of messages across all networks.
24. Our analysis is consistent with average A2P SMS termination charge increases offered to Pivotel by Telstra, TPG and Optus of between approximately [REDACTED] per cent since declaration lapsed in 2020, implying the major MNOs have the ability and incentive to set such charges above competitive levels.
25. In a future with declaration, MNOs will not have the ability and incentive to raise A2P SMS termination charges above a competitive, cost-based level because we assume prices will be regulated at the cost of providing the service in a future with declaration.
26. In a future with declaration, an additional consequence of price regulation for A2P SMS termination charges will be that MNOs will not have the ability and incentive to raise on-net supply prices in the relevant wholesale market above a competitive level because on-net and off-net supply are substitutes in the market for wholesale A2P SMS to be delivered on a given mobile network.
27. In our opinion, competition is likely to be stronger in the wholesale and retail markets for A2P SMS in a future with declaration, relative to a future without declaration, because:
- a. Pivotel will be an effective competitor, providing a competitive constraint on the major MNOs offering on-net and off-net services in the wholesale A2P SMS market, and on MNOs and SMS aggregators in the wholesale aggregated A2P SMS market;
 - b. all MNOs will be able to compete on the basis of cost-based input prices to provide off-net A2P SMS to SMS aggregators in the wholesale A2P SMS markets and A2P service providers in the wholesale aggregated A2P SMS market;
 - c. regulation will impose a constraint on the price of monopoly provided on-net services supplied to SMS aggregators, reducing their input costs and enabling them to compete more effectively against MNOs in the downstream wholesale and retail markets; and
 - d. access to competitively priced off-net services in wholesale markets will enable A2P service providers and MNOs to compete effectively against vertically integrated SMS aggregators and other MNOs and encourage entry in the retail market, reflecting greater contestability.
28. Such changes in price and market structure are likely to adjust over time as market participants adapt to changing competitive conditions.
29. Finally, economic principles imply that competition leads to economic efficiency, which is attained when given resources are allocated in such a way to maximise the welfare, or economic surplus, of all individuals.

30. Where competition is likely to be promoted in the wholesale A2P SMS markets, wholesale aggregated A2P SMS market and retail A2P SMS market in a future with declaration relative to a future without declaration, it follows that declaration is also likely to give rise to an increase in productive, dynamic, and allocative efficiency in those markets.
31. In our opinion, these outcomes are in the long-term interests of end-users.

1. Introduction

32. We have been engaged by external counsel to Pivotel Group Pty Ltd (Pivotel) to prepare this report on the likely competitive effects of the declaration of a mobile terminating access service (MTAS) for short message services (SMS) under Part XIC of the *Competition and Consumer Act 2010* (CCA).
33. Pivotel is a regional mobile network operator (MNO) that currently operates in the national wholesale markets for application to person (A2P) SMS services in Australia. Pivotel must acquire SMS termination services from the three national MNOs, ie, Telstra, Optus and TPG, as an input to providing its A2P SMS services.
34. In 2019, the Australian Competition and Consumer Commission (ACCC) decided to extend the declaration of MTAS for voice services but allowed the declaration of MTAS for SMS to lapse.¹ The ACCC is now considering whether to extend the declaration of MTAS services and, as part of that inquiry, whether it should redeclare MTAS for SMS.²

1.1 Instructions

35. We have been asked to provide our opinion in relation to the likely effect of the declaration of an MTAS for SMS on competition in the relevant downstream markets, with a specific focus on application-to-person messaging services.

1.2 Declaration framework

36. In 2023, the ACCC commenced a public inquiry into the declaration of the domestic MTAS, along with eight other declared telecommunication services.³
37. Under Part XIC of the CCA, the ACCC may declare that a listed carriage service or service that facilitates the supply of a listed carriage service is a 'declared service',⁴ where a carriage service is:⁵

a service for carrying communications by means of guided and/or unguided electromagnetic energy.
38. In making a declaration decision, the ACCC must determine whether declaration will promote the long-term interests of end-users (LTIE).⁶ It must consider the extent to which declaration is likely to result in the achievement of the following three objectives:⁷
 - the objective of promoting competition in markets for telecommunications services
 - the objective of achieving any-to-any connectivity in relation to carriage services that involve communication between end-users

¹ ACCC, *Domestic Mobile Terminating Access Service Declaration Inquiry*, Final report, June 2019, pp 2-3.

² ACCC, *Public inquiry into the declaration of the domestic transmission capacity service, fixed line services and domestic mobile terminating access service*, Discussion paper, May 2023.

³ ACCC, *Public inquiry into the declaration of the domestic transmission capacity service, fixed line services and domestic mobile terminating access service*, Discussion paper, May 2023, p 4.

⁴ ACCC, *Public inquiry into the declaration of the domestic transmission capacity service, fixed line services and domestic mobile terminating access service*, Discussion paper, May 2023, p 6; and Section 152AL of the CCA.

⁵ ACCC, *Public inquiry into the declaration of the domestic transmission capacity service, fixed line services and domestic mobile terminating access service*, Discussion paper, May 2023, p 6; and Section 7 of the Telecommunications Act.

⁶ ACCC, *Public inquiry into the declaration of the domestic transmission capacity service, fixed line services and domestic mobile terminating access service*, Discussion paper, May 2023, p 7.

⁷ ACCC, *Public inquiry into the declaration of the domestic transmission capacity service, fixed line services and domestic mobile terminating access service*, Discussion paper, May 2023, p 7; and Section 152AB(2) of the CCA.

- the objective of encouraging the economically efficient use of, and economically efficient investment in, the infrastructure by which listed services are supplied, and any other infrastructure by which such services are, or likely to become, capable of being supplied. [footnotes omitted]

39. To determine whether declaration will promote competition, the ACCC will consider the extent to which declaration is likely to remove obstacles to end-users gaining access to a listed service.⁸
40. The ACCC will consider the markets in which competition is likely to be affected, which may include upstream or downstream markets as well as the market for the service itself.⁹ To undertake this task, the ACCC will:¹⁰
- identify and define the relevant markets;
 - assess the state of competition in those markets; and
 - consider the state of competition in those markets with and without declaration.
41. In this report, we focus on the likely effect of the declaration of an MTAS for SMS on competition in relevant downstream markets for A2P SMS services, and whether the effect on competition is likely to be in the long-term interests of end-users.

1.3 Report structure

42. The remainder of this report is set out as follows:
- in section two, we describe the relevant background and context in relation to the provision of A2P SMS services in Australia, the roles of Pivotal and other market participants in the supply chain, and the recent history of the regulation of mobile terminating services;
 - in section three, we define the relevant markets in which competition is likely to be influenced by consequence of declaration; and
 - in section four, we assess the likely effect on competition in the relevant markets in a future without declaration relative to a future with declaration, and note the likely effect of the promotion of competition on productive, dynamic and allocative efficiency.

⁸ ACCC, *Public inquiry into the declaration of the domestic transmission capacity service, fixed line services and domestic mobile terminating access service*, Discussion paper, May 2023, p 7; and Section 152AB(4) of the CCA.

⁹ ACCC, *Public inquiry into the declaration of the domestic transmission capacity service, fixed line services and domestic mobile terminating access service*, Discussion paper, May 2023, p 7.

¹⁰ ACCC, *Public inquiry into the declaration of the domestic transmission capacity service, fixed line services and domestic mobile terminating access service*, Discussion paper, May 2023, p 7.

2. Background and context

43. In this section we provide background material relevant to our assessment of competition in the supply of wholesale and retail A2P SMS services, including an overview of:
- a. the function of SMS termination services, types of SMS and the inputs required for the delivery of messages between mobile networks;
 - b. the functional levels of the supply chain for A2P SMS services; and
 - c. the recent history of regulation.

2.1 Mobile terminating access service for short message services

44. Mobile terminating services are provided by Telstra, Optus and TPG, the national mobile network operators, as well as Pivotel, which operates a mobile network with substantially fewer directly connected customers relative to the national MNOs.¹¹

45. The ACCC explains that the MTAS is an essential wholesale service for the provision of phone calls and SMS services to subscribers on different networks, stating:¹²

The MTAS is a wholesale service provided by a mobile network operator (MNO) to fixed line operators and other MNOs to connect or 'terminate' a call on its mobile network. It is an essential wholesale interconnection service, connecting subscribers from different mobile networks, and for calls and SMS to be made or sent by an end-user on one network to an end-user on another mobile network.

When a person (the A-Party) makes a call or sends an SMS to another person's mobile number (the B-Party), the A-Party's network provider completes the call by purchasing MTAS from the B-Party's network provider.

46. SMS termination services are required for an MNO to deliver an SMS from an end-user on its network to an end-user on another MNO's network.¹³ A person can only receive a call or message after it has been terminated on that person's mobile device by the carrier to whom the end-user is directly connected.¹⁴
47. It follows that each MNO has monopoly control over access to end-users on its network for voice and SMS termination. The ACCC explains that MNOs may therefore be able to exercise their market power in the absence of regulation, noting:¹⁵

Each network has a monopoly in controlling access to its subscribers for the purposes of connecting voice calls and delivering SMS. In the absence of regulation, a network operator could restrict access to its own customers by imposing unreasonable terms or very high prices to terminate calls or SMS on its network.

48. In this report, we focus on the effects of declaration of the MTAS for SMS.

¹¹ ACCC, *Public inquiry into the declaration of the domestic transmission capacity service, fixed line services and domestic mobile terminating access service*, Discussion paper, May 2023, p 41; and Information provided by Pivotel.

¹² ACCC, *Domestic mobile terminating access service declaration inquiry*, Final report, June 2019, p 6.

¹³ Pivotel, *Submission in support of declaration of a domestic mobile terminating access service for short message services*, 3 June 2022, para 2.3.

¹⁴ Pivotel, *Submission in support of declaration of a domestic mobile terminating access service for short message services*, 3 June 2022, para 2.3.

¹⁵ ACCC, *Domestic mobile terminating access service declaration inquiry*, Final report, June 2019, p 6.

2.1.1 Person to person and application to person short message services

49. SMS can be classified as person-to-person (P2P) or application-to-person (A2P) messages.
50. P2P SMS involves the transmission of an SMS from one subscriber on a mobile network to a second subscriber on the same or a different mobile network. The end-users of P2P services are usually individuals and communication is two-way.
51. A2P SMS involves the transmission of an SMS from a software application to a subscriber on a mobile network. The ACCC states:¹⁶

A2P service providers deliver automated or semi-automated SMS messages from a software application to mobile subscribers, using an internet connection and access to a mobile network. A2P services are commonly used by businesses to contact customers, for example, to confirm appointments or provide password verification. The end-user receiving an A2P SMS may be on the same network as the MNO providing the A2P service or on another network.

52. End-users of A2P services are small, medium and large businesses that communicate with consumers, staff members or stakeholders via SMS to provide information such as appointment or reservation reminders, delivery notifications, welfare checks, two factor authentication, password resets and marketing.¹⁷ We understand that the use of A2P SMS is particularly well suited and has become important for the fast and secure delivery of 'one time passwords' (OTPs).¹⁸
53. Communication through A2P SMS is often one-way. However, we understand that increasingly recipients can also respond to A2P messages sent by businesses.¹⁹

2.1.2 On-net and off-net supply for A2P SMS

54. MNOs have the infrastructure and network to deliver A2P SMS messages to consumers, which can occur by way of *on-net* or *off-net* supply depending on the need for interconnection services between customers on different networks, ie:²⁰
 - a. **on-net supply** involves an MNO delivering SMS messages directly to a customer's device that is connected to the same network, meaning there is no need for interconnection services between networks; and
 - b. **off-net supply** involves an MNO delivering SMS messages to a customer's device on another network, meaning the MNO must acquire SMS termination services from the receiving MNO, which controls access to its directly connected customers.
55. SMS termination services are an input for both P2P and A2P SMS provided by MNOs using off-net supply arrangements. However, A2P SMS services may also be provided by way of on-net supply arrangements, eliminating the need for SMS termination services. The ACCC explains:²¹

SMS termination services, as described in the MTAS service description, are an essential input to the provision of retail P2P services downstream. There is no alternative service allowing an MNO to send an SMS from its subscriber to a subscriber on another MNO's network...

¹⁶ ACCC, *Public inquiry into the declaration of the Domestic Mobile Terminating Access Service*, Discussion paper, August 2018, p 11.

¹⁷ Pivotal, *Submission in support of declaration of a domestic mobile terminating access service for short message services*, 3 June 2022, p 6.

¹⁸ Mobilesquared, *Global A2P SMS report | The complete overview 2017-2027*, July 2023, p 12.

¹⁹ Information provided by Pivotal.

²⁰ Pivotal, *Submission in support of declaration of a domestic mobile terminating access service for short message services*, 3 June 2022, para 3.2.

²¹ ACCC, *Domestic mobile terminating access service declaration inquiry*, Final report, June 2019, p 23.

On the other hand, SMS termination services are a possible, but not essential, input to A2P SMS services. This is because A2P SMS aggregators can negotiate on-net service agreements with each of the MNOs.

56. In such circumstances, SMS aggregators negotiate on-net service agreements with each of the MNOs to provide aggregated A2P SMS to downstream A2P service providers or end-users.²² Accordingly, SMS termination services are not an essential input for end-users to communicate with their customers.
57. However, we note that each MNO has a monopoly over access to its directly connected customers by consequence of the requirement to acquire either on-net supply or SMS termination services for the wholesale supply of A2P SMS.

2.1.3 Alternatives to P2P and A2P SMS

58. While each MNO has a monopoly in controlling access to its subscribers for the purpose of delivering SMS, alternative methods of P2P and A2P communication that do not involve the use of SMS have been developed in recent years.

Person to person messaging alternatives

59. Over-the-top (OTT) communication services, such as Facebook Messenger, iMessage, WeChat and WhatsApp, enable registered users to contact each other using the internet, irrespective of the underlying network and do not require an MTAS.²³ OTT communication services require both the sender and receiver to have a smartphone with data services enabled and the same OTT application installed.²⁴
60. The ACCC noted in 2019 that OTT text messaging was continuing to grow at the same time as P2P SMS usage was declining.²⁵ As such, it considered that OTT messaging services are now an effective substitute for retail P2P SMS, imposing a competitive constraint on SMS termination charges set by MNOs.²⁶

Application to person messaging alternatives

61. In contrast with P2P services, OTT messaging services do not appear to provide an effective alternative for A2P SMS for businesses in Australia.
62. We understand that this is likely to be due to the ubiquity of SMS as compared with the requirement for the receiver of an OTT A2P message to have the same OTT application as the sender installed, which is less likely to be applicable in A2P messaging contexts.
63. By way of example, the ACMA reports that while most Australians use social media or apps to send messages, not all users do so via the same app, with 55 per cent using Facebook messenger, 31 per cent using WhatsApp and 18 per cent using Instagram.²⁷ There is also evidence to suggest that OTT services for messaging are used by fewer Australians in regional areas than those in metropolitan areas.²⁸

²² ACCC, *Domestic mobile terminating access service declaration inquiry*, Final report, June 2019, p 40-41.

²³ ACCC, *Domestic mobile terminating access service declaration inquiry*, Final report, June 2019, p 7.

²⁴ ACCC, *Domestic mobile terminating access service declaration inquiry*, Final report, June 2019, pp 10-11.

²⁵ ACCC, *Domestic mobile terminating access service declaration inquiry*, Final report, June 2019, p 24.

²⁶ ACCC, *Domestic mobile terminating access service declaration inquiry*, Final report, June 2019, pp 22 and 25.

²⁷ Australian Communications and Media Authority, *Communications and media in Australia series: How we communicate*, Executive summary and key findings, December 2022, p 4.

²⁸ Australian Communications and Media Authority, *Communications and media in Australia series: How we communicate*, Executive summary and key findings, December 2022, p 3.

64. These characteristics imply that businesses are less likely to consider OTT services as an effective substitute for SMS because they are unlikely to be able to reach all customers or stakeholders using one alternative format or platform. This is particularly the case for some categories of A2P messages, such as OTPs, and for businesses with diverse customer bases that are unlikely to have the same messaging platform installed on their devices.
65. Further, in its 2023 discussion paper, the ACCC explains that the prevalence of A2P SMS has increased in recent years and is expected to continue growing, implying it is not expected to be replaced by OTT messaging as an alternative in the medium term, noting:²⁹

There is indication that application-to-person SMS has become an increasingly prevalent form of communications. In Australia, volumes of application-to-person SMS sent have increased from 9.2 billion in 2019 to 13.9 billion in 2023 and is expected to increase to 16.6 billion in 2027. [footnotes omitted]

66. Similarly, Omdia, a specialist telecommunications, media and technology consultancy, predicted in 2021 that global A2P SMS revenue would continue to grow strongly until at least 2026 and overtake P2P message revenue in the Asia-Oceania (including Australia) region by 2023.³⁰
67. MobileSquared, a provider of global messaging data analysis and expertise, also predicted in July 2023 that the share of A2P SMS traffic lost to WhatsApp in the Oceania region would increase only marginally from ██████████ implying that A2P messaging using WhatsApp is not expected to act as a viable alternative to SMS, nor comprise a material proportion of the retail A2P market in the region in the medium term.
68. Consistent with the evidence summarised above and available to us, in our opinion, it is likely that OTT messaging services do not currently provide a viable alternative to A2P SMS for the majority of businesses communicating with their customers.

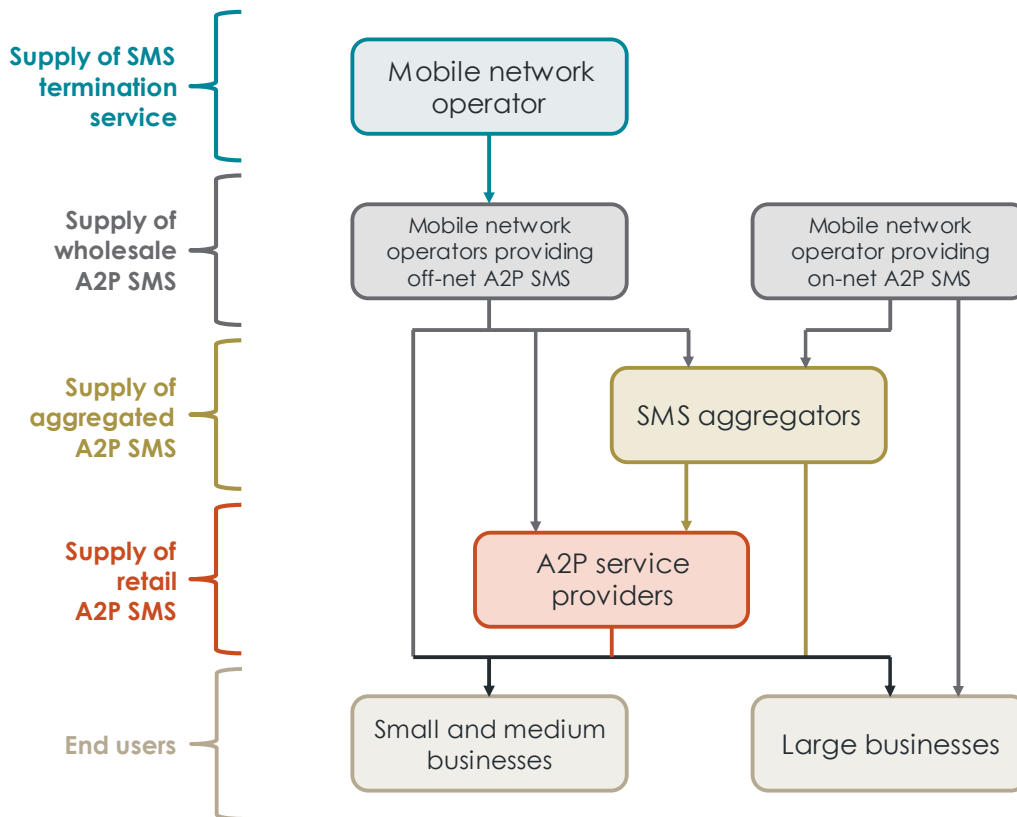
2.2 Industry structure and supply chain

69. There are four key elements to the supply chain for A2P SMS services, ie:
- a. the supply of SMS termination services by MNOs to MNOs for off-net supply of A2P SMS;
 - b. the supply of wholesale A2P SMS services by MNOs to SMS aggregators;
 - c. the supply of wholesale aggregated A2P SMS services by MNOs or SMS aggregators to retail suppliers of A2P services or direct to large end-users; and
 - d. the supply of retail A2P SMS services to end-users, ie, small, medium, and large businesses.
70. Figure 2.1 below sets out the principal elements in the supply chain for A2P SMS services.

²⁹ ACCC, *Public inquiry into the declaration of the domestic transmission capacity service, fixed line services and domestic mobile terminating access service*, Discussion paper, May 2023, p 48.

³⁰ Omdia Report: *Mobile Messaging Traffic and Revenue Forecast Report 2021-26* in Pivotel, *Submission in support of declaration of a domestic mobile terminating access service for short message services*, 3 June 2022, para 4.11, footnote 10.

Figure 2.1: Application-to-person SMS supply chain and market participants



71. We provide a summary of the services provided and market participants operating at each level of the supply chain below.

2.2.1 Supply of SMS termination services to MNOs

72. SMS termination services are capable of being supplied by each MNO, including Telstra, Optus, TPG and Pivotal, for the delivery of P2P or A2P messages on its network.
73. We explain in paragraphs 54 and 55 above that SMS termination services are an essential input for the delivery of an A2P SMS message by an MNO on another MNO's network, ie, off-net services. The ACCC explains:³²

As with P2P SMS, SMS termination services are an essential input to the provision of SMS services downstream, and there is no alternative service allowing an MNO to send an SMS to an end-user on another MNO's network.

74. Since there is no alternative service allowing an MNO to send an SMS to an end-user on another MNO's network, each MNO has a monopoly over the supply of SMS termination on its network.³³ As such, there are separate branches at the top of the supply chain for delivering messages to customers on each major network.
75. By way of example, Telstra has a monopoly over the delivery of SMS from another network to customers on the Telstra network.

³² ACCC, *Domestic mobile terminating access service declaration inquiry*, Final report, June 2019, p 36.

³³ ACCC, *Domestic mobile terminating access service declaration inquiry*, Final report, June 2019, p 36.

76. SMS termination services can only be acquired by other MNOs with the relevant infrastructure to receive short messages and deliver them to customers on a mobile network.³⁴ MNOs, including Pivotal, acquire SMS termination services from rival MNOs to provide their customers with SMS services, including P2P and off-net A2P SMS.³⁵
77. We understand that while the SMS termination service provided for A2P or P2P messages is functionally equivalent, MNOs may charge different prices for terminating A2P and P2P messages or set different prices for 'balanced' and 'unbalanced' traffic between themselves and other MNOs, which effectively imposes a separate price for one-way A2P messages.³⁶ We describe these prices further in section 2.3.3 below.

2.2.2 Supply of wholesale A2P SMS services to aggregators and retailers

78. Wholesale A2P SMS services are supplied by MNOs through either on-net or off-net supply arrangements to deliver SMS to customers on their own or other MNO's networks, respectively.
79. Where MNOs provide A2P SMS services through:
- a. on-net supply arrangements, they provide SMS delivery to customers on their own network only; or
 - b. off-net supply arrangements, they provide SMS delivery to customers on other networks and are required to purchase SMS terminating services from other MNOs.
80. The ACCC explains that SMS aggregators and A2P service providers negotiate on-net and off-net arrangements for the wholesale supply of A2P SMS with MNOs:³⁷

In order to send A2P SMS messages to mobile subscribers, an A2P SMS service provider must have agreements with MNOs. These take either of two forms: an aggregator negotiates separate agreements with each MNO for it to deliver SMS only to that MNO's own customers (on-net), or an A2P SMS service provider negotiates an agreement with a single MNO to deliver SMS to its own customers (on-net) but also to deliver SMS to customers on other MNOs' networks (off-net) ...

We note that within this market, MNOs also supply wholesale A2P SMS services to aggregators, such as Sinch, to deliver SMS to that MNO's customers (on-net). They also sell A2P SMS services to aggregators to deliver SMS to customers on another MNO's network (off-net).

81. We understand that off-net or SMS aggregation services are desirable for smaller A2P service providers that do not have sufficient scale to negotiate on-net agreements with the major MNOs.³⁸
82. Since each MNO is uniquely able to deliver SMS messages from within its own network, each MNO has a monopoly over the on-net supply of A2P SMS on its own network.³⁹ We explain in paragraph 74 above that each MNO also has a monopoly over SMS termination on its network.
83. It follows that each MNO has exclusive control over the delivery of A2P SMS on its network, either via on-net services or SMS termination services required for the supply of off-net services by rival MNOs.

³⁴ ACCC, *Public inquiry into the declaration of the domestic mobile terminating access service*, Discussion paper, August 2018, p 20.

³⁵ ACCC, *Domestic mobile terminating access service declaration inquiry*, Draft report, 2 May 2019, p 27.

³⁷ ACCC, *Domestic mobile terminating access service declaration inquiry*, Final report, June 2019, pp 38, 36.

³⁸ See, for example: Pivotal, *Submission in support of declaration of a domestic mobile terminating access service for short message services*, 3 June 2022, para 5.7; MessageMedia, *Submissions | 2018 ACCC MTAS declaration inquiry*, 14 September 2018, para 26.c, p 37; and Twilio, *Twilio submission to ACCC draft MTAS declaration inquiry report*, 11 June 2019, p 4.

³⁹ ACCC, *Domestic mobile terminating access service declaration inquiry*, Final report, June 2019, p 36.

84. However, MNOs compete against one another to provide wholesale aggregated off-net A2P SMS services for the delivery of messages across all networks downstream of each MNO's monopoly over SMS termination services on its own network.
85. We understand from Pivotel that:⁴⁰
- a. Telstra, Optus and TPG provide wholesale on-net supply for the delivery of A2P SMS on their own networks to SMS aggregators; and
 - b. Optus and Pivotel provide wholesale aggregated off-net supply for the delivery of A2P SMS on networks other than their own to SMS aggregators and A2P service providers.
86. Pivotel provides wholesale on-net and off-net supply of A2P SMS to SMS aggregators and retail A2P service providers. It does so by entering into interconnection agreements with other large MNOs, enabling SMS termination on their networks.⁴¹

2.2.3 Supply of wholesale aggregated A2P SMS services to retails

87. SMS aggregators supply wholesale A2P SMS services by aggregating on-net or off-net services from the major MNOs and providing them to A2P service providers or direct to end-users. The ACCC explains:⁴³
- Typically, the SMS aggregator aggregates supply, negotiating commercial agreement with each MNO to deliver SMS traffic to the MNO's customers (on-net delivery). The aggregator may also have an agreement for the MNO to deliver traffic to another MNO's network (off-net delivery) to offer redundancy. The SMS aggregator may supply direct to A2P service providers only, or may sell direct to end-users.
88. After aggregating on-net services, SMS aggregators provide a similar service to off-net A2P SMS that can be provided by an MNO, delivering messages to customers on all networks. It follows that SMS aggregators and MNOs providing off-net services are likely to compete for customers.
89. Accordingly, SMS aggregators supply wholesale aggregated A2P SMS services but can be considered to operate on a separate level of the supply chain to MNOs, as set out in figure 2.1 above.
90. We understand that SMS aggregators, such as Sinch, provide wholesale A2P SMS to A2P service providers.⁴⁴ Some SMS aggregators may also be vertically integrated, providing retail A2P SMS to end-users in downstream markets.
91. The ACCC notes that Sinch is one of only a few SMS aggregators operating in Australia.⁴⁵

⁴⁰ We understand Optus is the most active MNO offering off-net services in competition with Pivotel. Information provided by Pivotel.

⁴¹ Pivotel, *Submission in support of declaration of a domestic mobile terminating access service for short message services*, 3 June 2022, p 8.

⁴³ ACCC, *Domestic mobile terminating access service declaration inquiry*, Final report, June 2019, p 25.

⁴⁴ ACCC, *Domestic mobile terminating access service declaration inquiry*, Draft report, 2 May 2019, pp 36-37.

⁴⁵ ACCC, *Domestic mobile terminating access service declaration inquiry*, Final report, June 2019, pp 36 and 38.

2.2.4 Supply of retail A2P SMS services to end-users

92. Retail A2P SMS services are supplied to end-users who purchase and use A2P SMS to communicate with customers by:
 - a. MNOs directly;⁴⁶
 - b. SMS aggregators; and
 - c. A2P service providers.
93. End-users may include large business enterprises, banks, airlines, insurance companies, small and medium enterprises, and retailers.⁴⁷ SMS aggregators or A2P service providers generally act as intermediaries between end-users and MNOs.
94. A2P service providers purchase aggregated A2P SMS services from SMS aggregators or MNOs for the delivery of A2P SMS.⁴⁸ For the purposes of this report, we define A2P service providers as firms that do not aggregate on-net supply from multiple MNOs, rather we define firms that do so as vertically integrated SMS aggregators.
95. A2P retailers provide additional services to enable end-users to manage SMS content and contacts, adding value on top of the wholesale services provided upstream.⁴⁹
96. MNOs, A2P service providers and SMS aggregators supplying retail services compete on both price and non-price factors, where non-price factors include:⁵⁰
 - a. reliability, ie, delivery of receipts and delivery success rate;
 - b. two-way SMS;
 - c. usability of platform;
 - d. security of customer data;
 - e. customer service;
 - f. fault resolution;
 - g. geographic reach; and
 - h. other add-ons, such as web chat platforms.
97. We understand that:⁵¹
 - a. Telstra, Optus and TPG provide retail A2P services directly to small, medium and large end-users, commonly bundled with other telecommunication services;

⁴⁶ See, for example: Telstra, <https://www.telstra.com.au/business-enterprise/products/mobility-solutions/messaging-and-apis/telstra-access-messaging#benefits>, accessed 24 July 2023; and Optus, <https://www.optus.com.au/enterprise/mobility/mobilisation-apps/optus-sms-suite#benefits>, accessed 24 July 2023.

⁴⁷ ACCC, *Domestic mobile terminating access service declaration inquiry*, Final report, June 2019, p 25.

⁴⁸ ACCC, *Domestic mobile terminating access service declaration inquiry*, Final report, June 2019, p 25.

⁴⁹ Pivotal, *Submission in support of declaration of a Domestic Mobile Terminating Access Service for Short Message Services*, 3 June 2022, para 3.3.

⁵⁰ ACCC, *Domestic mobile terminating access service declaration inquiry*, Final report, June 2019, p 29.

⁵¹ See, for example: Telstra, <https://www.telstra.com.au/business-enterprise/products/mobility-solutions/messaging-and-apis/telstra-access-messaging#benefits>, accessed 24 July 2023; Optus, <https://www.optus.com.au/enterprise/mobility/mobilisation-apps/optus->

- b. A2P service providers provide retail A2P services to small, medium and large end-users; and
 - c. some SMS aggregators provide retail A2P services directly to end-users.
98. We understand that Pivotal only provides limited retail A2P services to small end-users with satellite handsets. It does not compete to provide retail services to large end-users, such as major airlines and banks.⁵²
99. We understand Twilio, Infobip and Vonage are examples of A2P service providers.

2.3 History of declaration and developments in the market

100. Regulation of an MTAS was first considered by the ACCC in 1997, with notable changes over the past 10 years.
101. The MTAS was first declared a service in 1997 after the introduction of the Part XIC telecommunications access provisions of the Trade Practices Act 1974.⁵³ In 2009, the service was redeclared, with the ACCC considering, but deciding against, the inclusion of SMS termination in the service description.⁵⁴
102. Later in 2014, the ACCC decided that the declaration of voice and SMS termination services was in the long-term interests of end-users and declared the services.⁵⁵ The final access determination (FAD) commenced in January 2016, reducing the SMS termination charge to 0.03 cents per message.⁵⁶
103. In 2019, the ACCC allowed the declaration of MTAS for SMS to lapse because declaration was no longer considered to be in the long-term interest of end-users.⁵⁷ The deregulation of prices took effect from January 2020 and the service has not been subject to access obligations since that time.⁵⁸
104. The ACCC is now considering whether to extend the declaration of the MTAS for voice and include MTAS for SMS as a declared service.⁵⁹

2.3.1 Declaration of SMS termination services in 2014

105. In 2014, the ACCC found that each MNO had a monopoly over SMS termination services on its network and that there were no available substitutes to SMS services, for which SMS termination services were an essential input.⁶⁰
106. The ACCC found that:⁶¹
- a. there was significant evidence to suggest that SMS termination services were not subject to competition;

sms-suite#benefits, accessed 24 July 2023; ACCC, *Domestic mobile terminating access service declaration inquiry*, Draft report, 2 May 2019, pp 36-40.

⁵² Information provided by Pivotal.

⁵³ ACCC, *Public inquiry into the declaration of the domestic mobile terminating access service*, Discussion paper, August 2018, p 9.

⁵⁴ ACCC, *Public inquiry into the declaration of the domestic mobile terminating access service*, Discussion paper, August 2018, p 9.

⁵⁵ ACCC, *Public inquiry into the declaration of the domestic mobile terminating access service*, Discussion paper, August 2018, p 9.

⁵⁶ ACCC, *Final Access Determination No. 1 of 2015 (MTAS)*, *Competition and Consumer Act 2010*, 19 August 2015, schedule 2, p 9.

⁵⁷ ACCC, *Public inquiry into the declaration of the domestic transmission capacity service, fixed line services and domestic mobile terminating access service*, Discussion paper, May 2023, p 41. Declaration of MTAS for voice was extended.

⁵⁸ ACCC, *Domestic mobile terminating access service declaration inquiry*, Final report, June 2019, p 3.

⁵⁹ See ACCC, *Public inquiry into the declaration of the domestic transmission capacity service, fixed line services and domestic mobile terminating access service*, Discussion paper, May 2023.

⁶⁰ ACCC, *Domestic mobile terminating access service declaration inquiry*, Final report, June 2019, p 6.

⁶¹ ACCC, *Public inquiry into the declaration of the domestic mobile terminating access service*, Discussion paper, August 2018, p 9.

- b. SMS termination rates were priced well above cost; and
 - c. price competition was subdued in downstream markets such that SMS prices for end-users were well above cost.
107. It found that the wholesale price for off-net SMS services were much higher than the wholesale price for on-net services, which may have discouraged SMS aggregators from purchasing off-net services and competing in downstream markets.⁶²
108. In relation to A2P SMS markets, the ACCC stated that declaration would be likely to promote competition in the:⁶³
- a. wholesale A2P SMS market, by enabling MNOs to offer lower off-net rates; and
 - b. downstream (retail) A2P SMS markets, by enabling aggregators and A2P service providers to offer lower rates to their customers.
109. Following declaration and the introduction of regulated prices in 2016, Pivotel entered the A2P SMS market and there was an increase in competition in the wholesale A2P market.⁶⁴ We understand that the wholesale price for A2P SMS fell to two cents per message from:⁶⁵
- a. four cents per message for on-net services; and
 - b. nine cents per message for off-net services.
110. The ACCC acknowledges that regulation was effective in reducing wholesale prices, stating in 2019:⁶⁶
- Regulation helped ensure that access to SMS termination services was not denied to any MNO, and that the wholesale price more closely aligned to cost.
111. The ACCC also notes that MNOs began competing in the retail A2P SMS market following declaration and that large enterprise end-users had benefited from reduced prices, explaining:⁶⁷
- MNOs are now suppliers in the retail A2P SMS market as they directly supply services to large enterprises such as banks and utilities as part of a broader suite of communications services. In this way, they are likely to compete with A2P SMS service providers who previously would have served these large enterprise and government customers...
- Declaration did result in some reduction in some prices, namely the wholesale A2P SMS prices, and the retail prices that MNOs charge large enterprise end-users.
112. However, the ACCC concluded that lower wholesale prices were not passed through to small and medium end-users.⁶⁸

2.3.2 Deregulation of SMS termination services in 2019

113. In 2019, the ACCC stated that the declaration of MTAS for SMS was not required to promote competition in the downstream market for A2P SMS services. While it noted that each MNO continued

⁶² ACCC, *Domestic mobile terminating access service declaration inquiry*, Final report, June 2019, p 27.

⁶³ ACCC, *Domestic mobile terminating access service declaration inquiry*, ACCC final decision, June 2014, p 1.

⁶⁴ ACCC, *Domestic mobile terminating access service declaration inquiry*, Draft report, 2 May 2019, p 37.

⁶⁵ Pivotel, *Submission in support of declaration of a Domestic Mobile Terminating Access Service for Short Message Services*, 3 June 2022, para 5.12.

⁶⁶ ACCC, *Domestic mobile terminating access service declaration inquiry*, Final report, June 2019, p 27.

⁶⁷ ACCC, *Domestic mobile terminating access service declaration inquiry*, Draft report, 2 May 2019, pp 38-39.

⁶⁸ ACCC, *Domestic mobile terminating access service declaration inquiry*, Draft report, 2 May 2019, p 38-39.

to hold monopoly access to end-users on its network, it considered that declaration was no longer necessary to constrain MNOs from exercising their market power.⁶⁹

114. The ACCC explained that this was in part due to the competitive constraint from OTT messaging services in the retail P2P SMS market, stating:⁷⁰

...the MNOs have little ability and incentive to increase the SMS termination rate in the absence of declaration due to competitive constraint from OTT messaging services in the retail market for messaging service [ie, P2P messaging]. While A2P SMS services are provided in a different market, off-net delivery of these messages relies on the same SMS termination service, which in the ACCC's view, would likely be continued to be provided on the same terms between the MNOs.

115. We note that this position assumes that SMS termination charges for P2P and A2P messages are charged at the same price by each MNO or that arbitrage between them is possible.
116. The ACCC also considered that the three national MNOs would not have sufficient incentive to deny Pivotal access to SMS termination services on reasonable terms and that attempts to do so would raise concerns under the CCA.⁷¹

2.3.3 Developments since deregulation

117. We understand that the three national MNOs have implemented or proposed significant price increases for SMS termination services for A2P messages sent by Pivotal following the deregulation of prices in 2020.⁷²

118. SMS termination charges may be imposed in respect of 'balanced' or 'unbalanced' traffic, where:

- a. balanced traffic reflects the common volume of SMS originated (sent) and terminated (received) between a pair of MNOs; while
- b. unbalanced traffic reflects the volume of SMS terminated by an MNO in excess of the volume that it originated in respect of messages sent to a given rival MNO.⁷³

119. [REDACTED]

120. We understand that the three national MNOs have increased or proposed to increase SMS termination charges for unbalanced traffic by between [REDACTED] per cent relative to the regulated price of 0.03 cents per message, which was determined to reflect the efficient cost of the service under the previous declaration in 2016.⁷⁴ This is despite the cost of capital remaining broadly constant over the same period.⁷⁵

121. We understand that the three national MNOs terminate approximately the same number of messages that they originate, while Pivotal originates a greater number of messages than it terminates due to

⁶⁹ ACCC, *Domestic mobile terminating access service declaration inquiry*, Draft report, 2 May 2019, p 40.

⁷⁰ ACCC, *Domestic mobile terminating access service declaration inquiry*, Final report, June 2019, p 39.

⁷¹ ACCC, *Domestic mobile terminating access service declaration inquiry*, Final report, June 2019, p 39.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

A2P messaging.⁷⁶ Hence, where traffic is broadly balanced between the national MNOs, the proposed price increases for unbalanced traffic will largely be incurred by Pivotel in respect of the supply of off-net A2P SMS services.

122.

[REDACTED]

123.

Pivotel says that an increase in termination charges would render its A2P SMS service unsustainable.⁷⁹ We set out our analysis and opinion in relation to the likely effect of a future continuing without declaration on competition in the relevant markets, including the likely effect on Pivotel, in section 4 below, noting in paragraph 233 that Pivotel is unlikely to remain a viable competitor against rival MNOs given such increases in the price of A2P SMS termination charges.

⁷⁶ Pivotel, *Submission in support of declaration of a domestic mobile terminating access service for short message services*, 3 June 2022, para 5.9.

[REDACTED]

⁷⁹ Pivotel, *Submission in support of declaration of a domestic mobile terminating access service for short message services*, 3 June 2022, para 4.9.

3. Market definition

124. In this section, we define the appropriate markets within which to examine the competitive effects of declaration of the MTAS for SMS. In our opinion, these are:
- a. the supply of A2P SMS termination services offered by each MNO for delivery of messages to subscribers on their respective networks;
 - b. the supply of wholesale A2P SMS services for the delivery of A2P messages on a single network currently offered as off-net services or on-net services by MNOs to SMS aggregators;
 - c. the supply of wholesale aggregated A2P SMS services for delivery of A2P messages across all networks offered by some MNOs and SMS aggregators to retail A2P service providers; and
 - d. the supply of retail A2P SMS services currently offered by MNOs, SMS aggregators and other A2P service providers to end-users, such as small, medium and large enterprises, in Australia.

3.1 Approach to market definition

125. A market is the area of close competition between firms.⁸⁰ Market definition involves the identification of the competitive constraints that are likely to have a material effect on a product or service (they are 'in' the market), and those that have a less material effect (they are 'out' of the market). However, such bright lines rarely exist in practice, and firms selling products or services that are outside of a market may act as a competitive constraint on those in that market, albeit to a lesser degree.
126. The boundaries of a market are conventionally determined by reference to four dimensions, ie:⁸¹
- a. the functional dimension, being that element of the supply chain that is the relevant arena of competition;
 - b. the product dimension, being the goods or services supplied;
 - c. the geographic dimension, being the geographic area over which the relevant products are supplied (or could be supplied); and
 - d. the temporal dimension, being the time period over which substitution can take place.

3.1.1 Functional dimension

127. The functional dimension of a market refers to the element of the vertical supply chain being considered, such as whether a product is being sold at the wholesale or retail level. Evidence of actual market transactions by vertically separate firms strongly suggests the existence of separate functional markets.⁸² For example, if some firms offer wholesale services to retailers, then the retail and wholesale functions are separate, even if other firms offer both services.

128. Without evidence of actual transactions, it may be necessary to consider whether, within what may appear to be a single function, there is the potential for trade to occur within that function. Separate

⁸⁰ *Re Queensland Co-operative Milling Association Ltd., Defiance Holdings Ltd. (Proposed Mergers with Barnes Milling Ltd.) (1976) APR 40-012*, p 22.

⁸¹ ACCC, *Merger guidelines*, November 2017, para 4.8.

⁸² See: *In the matter of Fortescue Metals Group Limited* [2010] ACompT 2, para 1,037.

functional levels exist whenever there are potential transactions between the up and downstream levels that would allow the functions to be 'economically separable'.

129. In this context, economic separability is the extent to which independent entities can undertake the related activities under arm's length contractual arrangements, ie, through market procurement. In contrast, if two related activities cannot be performed separately, perhaps because the efficiencies of vertical integration are overwhelming,⁸³ and so they are only ever performed within the same firm, they are said to be economically inseparable.
130. It follows that multiple functional levels should be combined only in circumstances where vertical integration is effectively universal or overwhelmingly efficient.⁸⁴

3.1.2 Product and geographic dimensions

131. The generally accepted framework⁸⁵ for defining the product and geographic dimensions of markets is the 'hypothetical monopolist test', which involves the systematic application of a process that:
- a. commences with the candidate market being the narrowest reasonable market definition, taking into account the purpose at hand;
 - b. assesses whether a hypothetical monopolist in the candidate market would be closely constrained by products or services from outside the market, by contemplating the effect of imposing a small but significant non-transitory increase in price (SSNIP) from the competitive level – if the hypothetical monopolist would profitably be able to impose such a price rise, then the next step is applied or, otherwise, the candidate market is appropriate; and
 - c. expands the market to include the closest constraints on the hypothetical monopolist and goes back to the previous step.
132. Market definition is undertaken in the context of the conduct and statutory provision at issue.⁸⁶ However, a purposive approach has limits – the High Court has said that it should not be used to construct a market that is '...divorced from the commercial context of the putative contravention which precipitates the analysis'.⁸⁷
133. There is no simple and generally accepted method for determining the narrowest reasonable market, and so some degree of judgement is required. The overarching principle is to ensure that the narrowest reasonable market definition is consistent with the purpose at hand. The High Court has said that market definition is a focusing process undertaken with a view to assessing whether the

⁸³ ACCC, *Merger guidelines*, November 2017, para 4.42.

⁸⁴ See: Buckland, J, *Whither a unified approach to the functional dimension of market definition: Why Metcash was the one that got away*, p 227.

⁸⁵ ACCC, *Merger guidelines*, November 2017, paras 4.10-4.26, pp 14-16.

⁸⁶ 'Market identification is not a task undertaken at large, or in a vacuum. The task, and the extent of the task, are tailored to the conduct at issue and the statutory terms governing the contravention.' *Air New Zealand Ltd v ACCC* [2017] HCA 21, para 57. '[T]he court begins with the problem at hand and asks "what market identification best assists the assessment of the conduct and its asserted anti-competitive attributes".' *Air New Zealand Ltd v ACCC* [2017] HCA 21, para 58. Embedded in the "focusing process" is the recognition that the substantive criteria for a particular contravention in issue will depend on the particular statutory provisions. That process "may lead to the drawing of different lines in different circumstances depending upon the purpose of the provision in question". See: *Air New Zealand Ltd v ACCC* [2017] HCA 21, para 62.

⁸⁷ *Air New Zealand Ltd v ACCC* [2017] HCA 21, para 66. 'The process of market identification or definition is therefore to be undertaken with a view to assessing whether the substantive criteria for the particular contravention in issue are satisfied, in the commercial context the subject of analysis.' See: *Australian Competition and Consumer Commission v Australia and New Zealand Banking Group Limited*, [2015] FCAFC 103, (2015) 236 FCR 78, 107, (2015) 324 ALR 392, [2015] ATPR 42-508, 2015 WL 4599266, para 137.

substantive criteria for the particular contravention in issue are satisfied, in the commercial context the subject of analysis.⁸⁸

134. The substitutability of the relevant products or services is an important part of market definition and the hypothetical monopolist test.⁸⁹ Substitution is the act of buyers or sellers substituting one product or service for another in response to changes in prices or quality.⁹⁰ A market encompasses the range of business activities and geographic areas within which, if given a sufficient economic incentive:
- a. buyers will switch to a significant extent from one source of supply to another ('demand-side' substitution); and/or
 - b. sellers will switch to a significant extent from one production plan to another ('supply-side' substitution).

3.2 Application of the market definition framework

135. In this section we apply the framework described above to define the relevant markets by reference to functional, product and geographic dimensions.
136. The purpose of defining markets in this context is to assess the effect of declaration on competition in downstream markets for A2P SMS services.

3.2.1 Functional dimensions of the markets

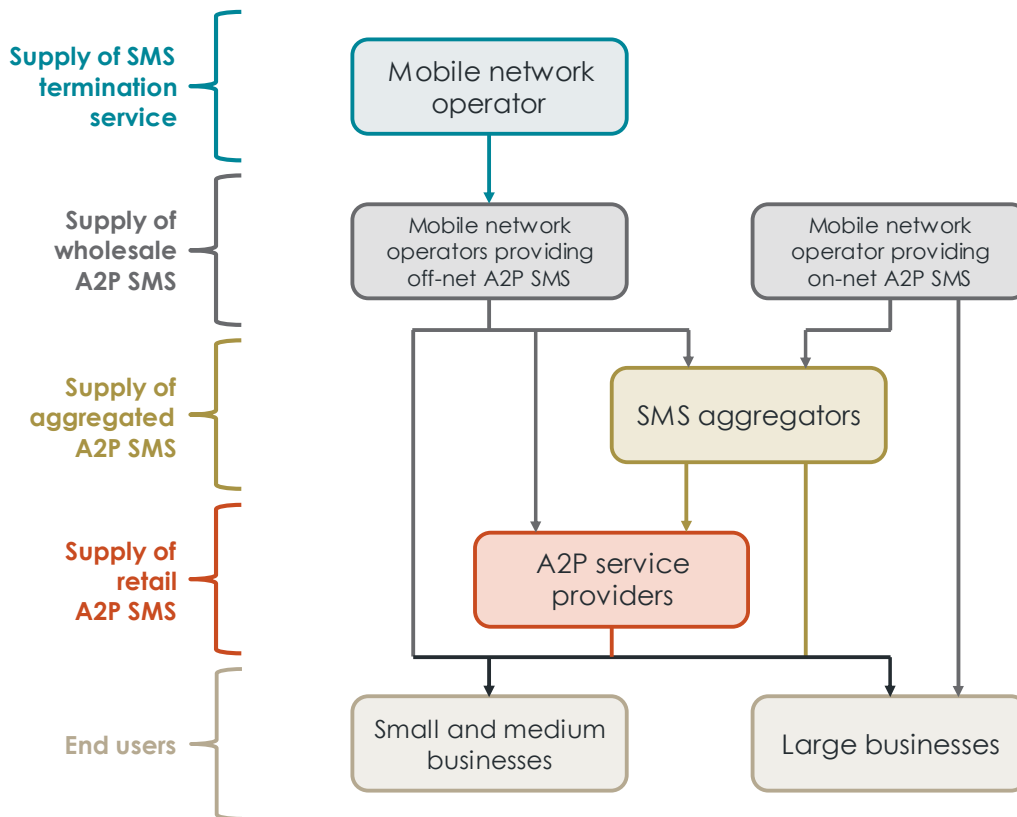
137. In section 2.2 above, we described four elements of the supply chain for A2P services, ie, the supply of:
- a. A2P SMS termination services on each network;
 - b. wholesale A2P SMS services provided via on-net or off-net supply for the delivery of A2P messages on each network;
 - c. wholesale aggregated A2P SMS services for the delivery of A2P messages across all networks; and
 - d. retail A2P SMS services to end-users.
138. A diagram of the functional levels of the market is set out below.

⁸⁸ *Air New Zealand Ltd v Australian Competition and Consumer Commission* [2017] HCA 21, para 58. The High Court has also said that 'And it recognises that market identification depends upon the issues for determination - the impugned conduct and the statutory provision proscribing anti-competitive behaviour that the conduct is said to contravene.' *Air New Zealand Ltd v Australian Competition and Consumer Commission* [2017] HCA 21, para 59.

⁸⁹ *Australian Competition and Consumer Commission v Pfizer Australia Pty Ltd*, [2018] FCAFC 78, (2018) 356 ALR 582, 2018 WL 2397940, para 265.

⁹⁰ *Australian Competition and Consumer Commission v Pfizer Australia Pty Ltd*, [2018] FCAFC 78, (2018) 356 ALR 582, 2018 WL 2397940, para 265.

Figure 3.1: Functional dimensions of the relevant markets



Source: HoustonKemp analysis

139. Consistent with our approach set out in paragraph 127, the four elements of the supply chain are in separate functional dimensions of the market because transactions take place at each of these levels, for example:
- MNOs supply A2P SMS termination services to Pivotel and other MNOs;⁹¹
 - MNOs, including Pivotel, supply wholesale on-net and off-net A2P SMS services to SMS aggregators;⁹²
 - SMS aggregators, Pivotel and at least some of the major MNOs supply wholesale aggregated A2P services to retail A2P service providers;⁹³ and
 - A2P retailers, including A2P service providers, some SMS aggregators and MNOs, supply A2P services to end-users.⁹⁴

3.2.2 Product dimensions of the markets

140. The purpose of defining markets in this report is to understand whether competition is likely to be promoted in related markets in a future with declaration of SMS termination charges, relative to a future without declaration of SMS termination charges.

⁹¹ See section 2.2.1.

⁹² See section 2.2.2.

⁹³ See section 2.2.3.

⁹⁴ See section 2.2.4.

141. Accordingly, it is necessary to define the markets that encompass:
- a. the supply of wholesale A2P SMS services;
 - b. the supply of wholesale aggregated A2P SMS services; and
 - c. the supply of retail A2P SMS services.
142. We first define the separate markets for A2P SMS termination services, which we assume would be subject to regulation in a future with declaration.

Supply of A2P SMS termination services

143. In our opinion, there is a separate market for SMS termination services for A2P messages relative to P2P messages on each MNO's network.
144. In our opinion, the narrowest reasonable product dimension of this market is the supply of SMS termination services for A2P messages offered by each MNO for delivery to customers on its network, ie, off-net supply.
145. The existence of two separate markets for the provision of the same good or service to different groups of customers is possible when suppliers are able to discriminate in the prices they set as between those groups.⁹⁵
146. Price discrimination occurs when two or more similar goods are sold at prices that reflect different ratios to their respective marginal costs.⁹⁶ A firm can price discriminate when:⁹⁷
- a. it has some market power;
 - b. it can sort customers based on how much they are willing to pay; and
 - c. it can prevent resale or arbitrage.
147. In such circumstances, the price set for one group of customers does not impose a competitive constraint on the price that can be set for a second group of customers.
148. The delivery of A2P and P2P messages sent between two networks requires SMS termination services to be provided by the receiving network. However, in our opinion, the price of P2P SMS termination services does not constrain the price of A2P SMS termination services because each MNO:
- a. has market power;
 - b. can sort customers based on how much they are willing to pay; and
 - c. can prevent resale or arbitrage.
149. First, each MNO has market power because it is a monopoly provider of termination services for customers on its network. We explain in sections 2.1.2 and 2.2.1 above that termination services are an essential input for MNOs to deliver A2P messages on one another's networks (ie, off-net supply) and MNOs control access to customers on their respective networks.

⁹⁵ See, for example: ACCC, *Merger guidelines*, November 2017, p 19; and Australian Competition and Consumer Commission v Pacific National Pty Limited (No 2) [2019] FCA 669, paras 100 – 116.

⁹⁶ Varian, H R, *Price discrimination*, in Schmalensee, R and Willig R D (eds), *Handbook of Industrial Organization*, Elsevier Science Publishers, 1989, p 598.

⁹⁷ Varian, H R, *Price discrimination*, in Schmalensee, R and Willig R D (eds), *Handbook of Industrial Organization*, Elsevier Science Publishers, 1989, p 599.

150. The ACCC has also said that each MNO has a monopoly over the provision of SMS termination services on its respective network.⁹⁸
151. Second, MNOs are likely to have a different willingness to pay for SMS termination services depending on whether such services are being acquired as an input to downstream P2P or A2P SMS. This difference in willingness to pay is likely to reflect the availability of substitutes for SMS in the respective downstream markets. We explain in section 2.1.3 that there appear to be a number of effective alternatives to P2P SMS available to end-users that do not require termination services. In contrast, alternatives to A2P SMS are more limited.⁹⁹
152. We understand each MNO is able to distinguish between P2P and A2P SMS terminated on its network, including through contractual mechanisms, and therefore sort transactions by reference to the underlying willingness to pay of buyers, thus charging a different price for the termination of A2P and P2P messages.¹⁰⁰ MNOs may also be able to sort its MNO customers acquiring termination services for A2P SMS using unbalanced traffic volumes as a proxy for A2P messages.
153. Last, where an MNO can distinguish between A2P and P2P SMS terminated on its network, it can prevent arbitrage between termination services sold for A2P and P2P purposes.
154. We conclude that the appropriate product dimension of the four separate monopoly markets, for each of Telstra, TPG, Optus and Pivotal, is the supply of A2P SMS termination services. This implies there are four separate markets at this level of the supply chain, ie, the markets for A2P SMS termination services on the:
- a. Telstra network;
 - b. TPG network;
 - c. Optus network; and
 - d. Pivotal network.
155. We note that our definition of the markets for SMS termination services specifically for A2P SMS is narrower than the definition of the wholesale markets for SMS termination services set out by the ACCC in its 2019 decision on declaration.¹⁰¹

Supply of wholesale A2P SMS services for delivery of messages on each network

156. In our opinion, the narrowest reasonable product dimension of this market is the wholesale supply of bulk A2P SMS services for delivery of messages on a particular mobile network, for example, the supply of bulk A2P messages to be delivered to customer handsets on the Telstra network. This product may be provided as on-net or off-net supply to SMS aggregators.
157. In our opinion, on-net services are included in the narrowest dimension of the market because under a hypothetical monopolist test starting with off-net supply only, there is likely to be demand-side substitution to on-net supply if the price of off-net services increased by five to ten per cent from the competitive level.

⁹⁸ See, for example: ACCC, *Domestic mobile terminating access service declaration inquiry*, Draft report, 2 May 2019, p 36; and ACCC, *Public inquiry into the declaration of the domestic transmission capacity service, fixed line services and domestic mobile terminating access service*, Discussion paper, May 2023, p 48.

⁹⁹ See section 2.1.3.

¹⁰¹ ACCC, *Domestic Mobile Terminating Access Service Declaration Inquiry*, Final report, June 2019, p 23.

158. Accordingly, there is likely to be a significant degree of demand-side substitution by SMS aggregators between off-net and on-net A2P SMS services for the delivery of A2P messages on a particular network. By way of example, an SMS aggregator intending to provide a service in a downstream market that enables the delivery of an A2P message on the Telstra network, for example, can acquire as inputs either:
- a. off-net services from Optus or Pivotel to deliver messages to the Telstra network,¹⁰² for which A2P SMS termination services provided by Telstra are an input; or
 - b. on-net services directly from Telstra.
159. It follows that on-net and off-net services are likely to impose a competitive constraint on one another and be considered close substitutes by SMS aggregators in the market. Accordingly, MNOs providing on-net and off-net services compete against one another in these markets because we assume the service provided is functionally equivalent from the point of view of downstream customers.
160. We explain in paragraph 82 above that each MNO has exclusive control over on-net supply on its own network. However, in these markets, the provision of off-net supply by other MNOs may impose a competitive constraint on each MNOs price setting power. Conversely, the provision of on-net supply may impose a competitive constraint on the price of off-net supply in these markets.
161. We conclude that the appropriate product dimension of these markets is the provision of on-net and off-net supply of A2P SMS for delivery of messages on each mobile network, respectively. This implies that there are four separate markets at this level of the supply chain, ie, the markets for the supply of wholesale A2P SMS for delivery to customers on the:
- a. Telstra network;
 - b. TPG network;
 - c. Optus network; and
 - d. Pivotel network.

Supply of wholesale aggregated A2P SMS services for delivery of messages across all networks

162. In our opinion, the narrowest reasonable product dimension of this market is the wholesale supply of aggregated A2P SMS services for the delivery of messages across all or multiple mobile networks, for example, the supply of bulk A2P messages to be delivered to customer handsets on the Telstra, TPG, Optus *and* Pivotel networks. Aggregated A2P SMS services may be provided using a combination of on-net and off-net supply as inputs.
163. There is likely to be a significant degree of demand-side substitution between the services provided by SMS aggregators and MNOs, where:
- a. SMS aggregators may provide aggregated A2P SMS services by aggregating multiple on-net supply agreements with MNOs, for which on-net supply prices are an input; and
 - b. MNOs provide aggregated A2P SMS services by providing off-net supply, for which SMS termination charges set by each MNO are an input, as well as on-net supply for the delivery of messages on their own network, for which they would not be charged a price but would incur the direct cost of providing the service.

¹⁰² We understand that Optus and Pivotel provide off-net A2P services at the wholesale level. See paragraph 85.

164. We assume that the services provided in downstream markets are functionally equivalent for customers in those markets, irrespective of whether they are provided by way of aggregated on-net or off-net supply.
165. To provide a comprehensive downstream service, ie, offering the delivery of A2P messages on all networks to its customers, SMS aggregators require either:
- off-net services from one or multiple MNOs for the delivery of messages on all or a subset of networks;
 - on-net services from each MNO for the delivery of messages on their respective networks; or
 - a combination of both.
166. By way of example, an SMS aggregator intending to provide a service in the downstream market that enables the delivery of A2P messages across all four Australian networks could acquire as inputs either:
- off-net services to deliver messages to all networks from Optus and/or Pivotel; and/or
 - on-net services from each of Telstra, Optus, TPG and Pivotel to deliver messages on their respective networks; or
 - a combination of on- and off-net services providing coverage across all four networks – for example, on-net services from Telstra and Optus and off-net services from Pivotel to deliver messages to the Pivotel and TPG networks.
167. Accordingly, SMS aggregators and MNOs are likely to compete against one another to supply wholesale aggregated A2P SMS services to retail A2P service providers. We understand that at least Pivotel and Optus provide services in this market.¹⁰³
168. We conclude that the appropriate product dimension of this market includes the supply of aggregated A2P SMS services, enabling the delivery of messages across multiple mobile networks, provided by SMS aggregators or MNOs. This implies there is one consolidated product market at this level of the supply chain, with various inputs sourced from a number of separate upstream markets.

Supply of retail A2P SMS services

169. In our opinion, the narrowest reasonable product dimension of the market is the retail supply of A2P SMS services, which includes the provision of services to end-users, such as small, medium and large businesses, enabling them to construct and send SMS messages from an application to their customers. This retail product is provided by A2P service providers, some SMS aggregators, and MNOs in the market.
170. In our opinion, there is likely to be a limited degree of demand-side substitutability between A2P SMS services and other A2P messaging services by consequence of the features of SMS that we describe in section 2.1.3 above, including its ubiquity across mobile handsets. Given these features and the trends in the use of A2P SMS in Australia, we expect that a five to 10 per cent increase in the retail price of A2P SMS from the competitive level by a hypothetical monopolist would be profitable because it would not give rise to a significant amount of demand-side substitution to alternative A2P messaging services. As such, we do not consider those alternative messaging services as being *in* the retail market.

¹⁰³ See paragraph 85.

171. Accordingly, A2P service providers, some SMS aggregators, and MNOs are likely to compete against one another to supply retail A2P SMS services to a range of end-users.
172. We conclude that the appropriate product dimension of the market includes the supply of retail A2P SMS services. This implies that there is one consolidated product market at this level of the supply chain.

3.2.3 Geographic dimensions of the markets

173. We assume that the provision of SMS termination services and downstream A2P SMS services occurs on a national, Australia-wide basis at all levels of the supply chain.
174. By way of example, we understand that SMS termination services offered by MNOs are provided in respect of the delivery of SMS to customers Australia-wide.¹⁰⁴
175. Accordingly, we assume the geographic dimensions of the markets are Australia-wide for the:
- a. monopoly supply of A2P SMS termination services by each MNO;
 - b. supply of wholesale on-net and off-net A2P SMS services by MNOs for delivery of messages on the Telstra, Optus, TPG and Pivotel networks, respectively;
 - c. supply of aggregated wholesale A2P SMS services by MNOs and SMS aggregators for delivery of messages across multiple networks; and
 - d. supply of retail A2P SMS services by MNOs, SMS aggregators and A2P service providers.

¹⁰⁴ By way of example, the ACCC refers to Telstra, TPG and Optus as 'national network operators' and Pivotel as operating a 'regional mobile network'. See: ACCC, *Public inquiry into the declaration of the domestic transmission capacity service, fixed line services and domestic mobile terminating access service*, Discussion paper, May 2023, para 41.

4. Effect of declaration on competition

176. In this section we assess whether the declaration of SMS termination services is likely to promote competition in downstream markets for A2P SMS, and whether this is likely to have an effect on the long-term interests of end-users.
177. We first consider whether each MNO has the ability and incentive to set a profit maximising price above the cost of supply for A2P SMS termination services in a future without declaration and then with declaration, where:
- a. the ability of a firm to profitably increase prices above the competitive level depends upon:
 - i. whether its customers are able to secure inputs from another source;
 - ii. the extent to which its customers will reduce their demand given an increase in price; and
 - iii. whether prices are regulated; and
 - b. the incentive of a firm to increase prices above the competitive level depends upon:
 - i. the change in profit that can be earned by the firm in the market in question; and
 - ii. if the firm is vertically integrated, the change in its profit in relevant upstream or downstream markets.
178. Next, we address the implications for competition in the relevant markets identified in section 3 above, ie, the markets for the supply in Australia of:
- a. A2P SMS termination services;
 - b. wholesale A2P SMS services;
 - c. wholesale aggregated A2P SMS services; and
 - d. retail A2P SMS services.
179. Our analysis is a forward-looking assessment of the likely effects on competition in a future with or without declaration. Although the MTAS for SMS is not currently declared, we do not assume that the structure of the relevant markets will necessarily be the same as they are now.
180. In our opinion, declaration of the MTAS for SMS is likely to promote competition in the downstream wholesale and retail markets for A2P SMS we identify in paragraph 178 above.

4.1 A2P SMS termination charges in a future with and without declaration

181. We explain in section 1.2 that in making its declaration decision the ACCC must determine whether declaration will promote competition in the relevant markets for A2P SMS.¹⁰⁵ To undertake this task, the ACCC will consider the state of competition in the relevant markets with and without declaration.¹⁰⁶

¹⁰⁵ ACCC, *Public inquiry into the declaration of the domestic transmission capacity service, fixed line services and domestic mobile terminating access service*, Discussion paper, May 2023, p 7; and Section 152AB(4) of the CCA.

¹⁰⁶ ACCC, *Public inquiry into the declaration of the domestic transmission capacity service, fixed line services and domestic mobile terminating access service*, Discussion paper, May 2023, p 7.

182. Where a service is declared, the ACCC may make a final access determination (FAD) that specifies the terms and conditions of access to the declared service, which must include terms and conditions relating to price or a method of ascertaining price.¹⁰⁷
183. When the MTAS for SMS was previously declared in 2014, the ACCC subsequently made an FAD in 2016 regulating the SMS termination charge at 0.03 cents per message.¹⁰⁸
184. In its determination, the ACCC explained that the regulated rate reflected the estimated cost of SMS termination services in Australia in 2015, determined after conducting a public consultation and benchmarking study.¹⁰⁹
185. As such, in our opinion, it is likely that:
- a. in a future with declaration, the ACCC is likely to determine a regulated price for SMS termination services on the basis of the cost of providing the service as at the time of regulation, requiring MNOs to provide access to those services at the regulated price; and
 - b. in a future without declaration, MNOs will not be subject to regulated prices for SMS termination services and will be able to set those service charges at a level of their choice given market conditions.
186. In a future both with and without declaration, we assume that on-net supply of A2P SMS will remain unregulated, with MNOs free to set those service charges at a level of their choice given market conditions.
187. We explain in section 2.2 above that Telstra, TPG, Optus and Pivotal operate and compete at various levels of the supply chain for A2P SMS services, by way of example:¹¹⁰
- a. MNOs provide on-net supply in the markets for wholesale A2P SMS to be delivered on their own networks;
 - b. some MNOs, including Pivotal and Optus, also provide off-net supply to SMS aggregators in the markets for wholesale A2P SMS to mobile networks other than their own, and to retail A2P service providers in the market for wholesale aggregated A2P SMS to multiple networks; and
 - c. MNOs provide a combination of off-net and on-net supply to end-users in the market for retail A2P SMS.
188. Accordingly, MNOs may compete against one another and other market participants in the markets for wholesale and retail A2P SMS downstream of the markets for SMS termination services on each network. This implies that MNOs are vertically integrated.
189. We provide an example of the structure of the supply chain and functional levels of the relevant markets for A2P messages to be delivered to customers on the Telstra network in figure 4.1 below. Similar supply chains exist for messages to be delivered on the Optus, TPG and, to a lesser extent, Pivotal networks.

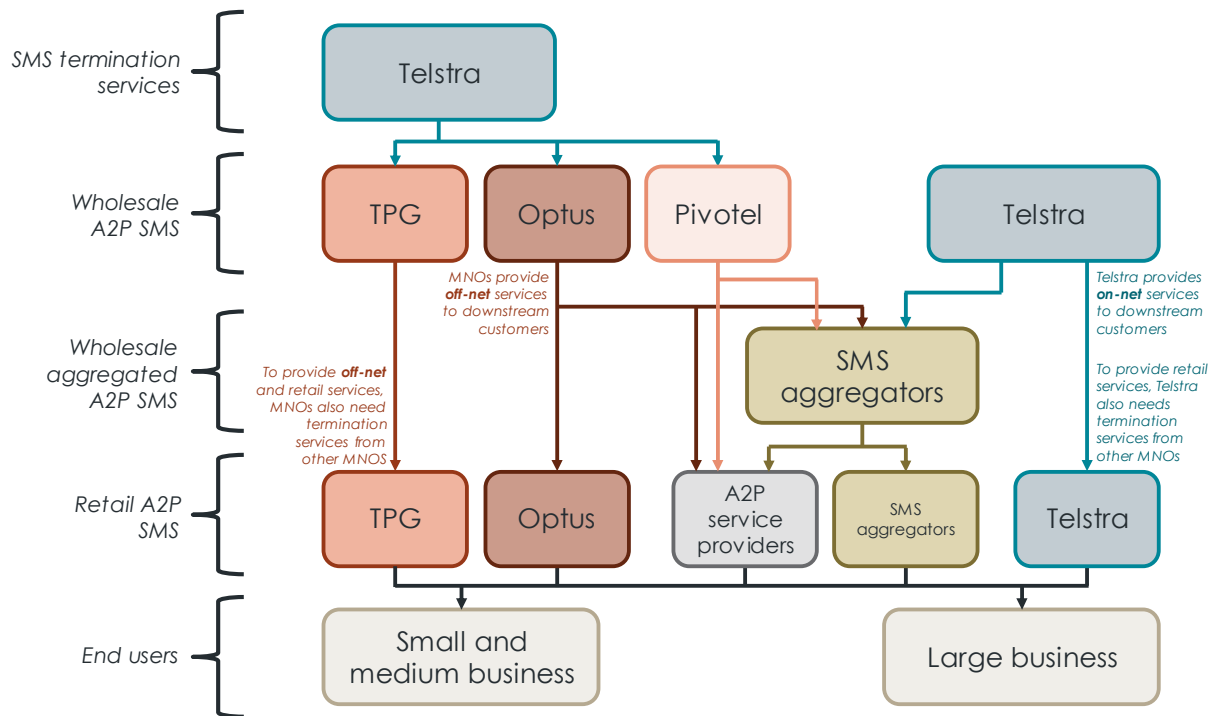
¹⁰⁷ ACCC, *Mobile terminating access service - Final access determination*, Final decision, August 2015, p 4; and sections 152BC(3) and (8) of the *Competition and Consumer Act*.

¹⁰⁸ See paragraph 102.

¹⁰⁹ ACCC, *Mobile terminating access service - Final access determination*, Final decision, August 2015, p iii.

¹¹⁰ See section 2.2.

Figure 4.1: Example of the relevant markets for A2P SMS for delivery on the Telstra network



190. In the material below we examine the ability and incentives of MNOs to raise A2P SMS termination charges in a future without declaration, compared to with declaration.

4.1.1 A2P SMS termination charges in a future without declaration

191. We set out below that, in a future without declaration, MNOs are likely to raise A2P SMS termination charges above the cost of providing the service for at least some rival MNOs because they will have the *ability* and *incentive* to do so. This is likely to create barriers to effective competition in the downstream markets for wholesale and retail A2P SMS services.

192. We recognise that MTAS for SMS has not been a declared service since deregulation took effect in January 2020.¹¹¹ This implies a future without declaration reflects circumstances in which the status quo is maintained. However, the structure of the market without declaration in the future will not necessarily be the same as it is now because changes in competitive conditions take time to influence market structure and competition.

193. As such, we undertake a forward-looking assessment of a future continuing without declaration and consider the likely outcomes and implications for competition.

Ability to raise charges above competitive level

194. In a future without declaration, each major MNO has the ability to set A2P SMS termination charges substantially above a competitive, cost-based level without losing substantial sales, because:

- a. SMS termination services are an essential input for off-net A2P SMS services; and
- b. MNOs have monopoly control over the provision of wholesale on-net A2P SMS services on their respective networks.

¹¹¹ ACCC, *Domestic Mobile Terminating Access Service Declaration Inquiry*, Final report, June 2019, p 3.

195. First, we explain in section 2.2.1 that each MNO is a monopoly provider of A2P SMS termination services on its network, which are an essential input for the delivery of A2P messages originating from an alternative network and therefore the supply of off-net A2P SMS services. This is illustrated in the top row of figure 4.1 using the example of Telstra.
196. As such, there are limited opportunities for demand-side substitution in response to a price increase, providing MNOs with the ability to raise charges without losing substantial sales.
197. Second, we explain in section 2.2.2 that each MNO holds monopoly control over the delivery of A2P SMS to customers on its own network by way of on-net supply.
198. On-net supply may be procured by SMS aggregators in the downstream wholesale A2P SMS markets as a substitute to off-net supply.
199. As such, while the availability of on-net supply may otherwise constrain the ability of MNOs to raise SMS termination charges above the competitive level, each MNO is also the monopoly provider of those substitute on-net services for delivery of SMS on their own networks. This is illustrated in figure 4.1 using the example of Telstra as the sole provider of both A2P SMS termination services and on-net supply of A2P SMS on its own network.
200. This implies that monopoly MNOs have the ability to set prices for on-net supply that will prevent demand-side substitution by SMS aggregators in response to an increase in A2P SMS termination charges above the competitive level if such conduct was likely to be profitable.
201. While competition from other non-SMS methods of P2P messaging imposes a competitive constraint on P2P SMS termination charges, we assume the same level of substitutability and competitive constraint does not apply in the markets for A2P SMS.¹¹²
202. It follows that MNOs have the ability to raise A2P SMS termination charges above the competitive, cost-based level without losing substantial sales.

Incentive to raise charges above competitive level

203. In a future without declaration, each MNO has an incentive to raise A2P SMS termination charges above the competitive level because:
 - a. it will maximise profits earned on the supply of termination services, or the supply of on-net services as a substitute;
 - b. it will be able to expand and increase its profits in the downstream wholesale A2P SMS market for the delivery of A2P messages on its own network; and
 - c. it will be able to expand and increase profits in the downstream wholesale aggregated A2P SMS market for delivery of messages across all networks.
204. First, fundamental economic principles imply that a monopoly provider of goods or services will set price above the cost of supply and restrict output to maximise its economic profits.¹¹³ It follows that monopoly MNOs can be expected to set A2P SMS termination charges above the cost of supply to maximise profits in the upstream markets for A2P SMS termination services in the absence of declaration.
205. We note that MNOs will have different incentives to raise termination charges for different buyers. This is because although each MNO has a monopoly over the delivery of messages on its own network, it

¹¹² See section 2.1.3.

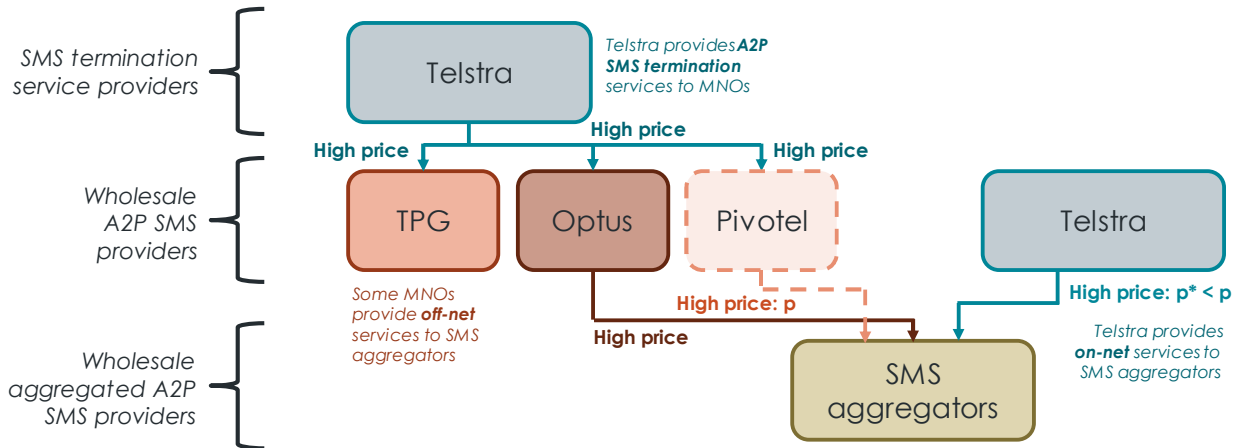
¹¹³ See, for example: Varian, H, *Intermediate microeconomics: A modern approach*, W. W. Norton & Company, United States of America, 2010, paras 440-443.

may also be a buyer of A2P SMS termination services on rival MNO's networks in order to provide off-net A2P SMS services in downstream wholesale or retail markets. By way of example, for Telstra to provide retail A2P SMS services to end-users it must procure A2P SMS termination services from Optus, TPG and, to a lesser extent, Pivotel.

206. Accordingly, there are additional complexities to consider when assessing the incentives facing MNOs given the parallel nature of the upstream markets for SMS termination services in the supply chain.
207. To illustrate, if Telstra and TPG purchase an equal amount of A2P SMS termination services for the delivery of A2P messages on one another's networks and charge each other an equally high price, such charges will have an offsetting effect, implying an effective price equal to the cost of supply for those messages and eliminating the opportunity to earn economic profits.
208. However, trade between Pivotel and a major MNO is likely to be highly unbalanced due to the small number of customers on Pivotel's network, eliminating any potential offsetting effects of balanced traffic and providing a strong incentive for major MNOs to set higher A2P SMS termination charges for Pivotel.
209. To the extent any MNO receives more A2P messages than it sends, it will have an incentive to raise termination charges above the competitive level to maximise profits.
210. Such circumstances are consistent with evidence that major MNOs have raised A2P SMS termination charges by increasing prices for unbalanced traffic or A2P SMS provided by Pivotel since declaration was allowed to lapse in 2020.¹¹⁴
211. Second, we explain in paragraphs 187 and 188 above that MNOs also compete in the downstream wholesale and retail A2P SMS markets that rely on SMS termination services or on-net supply as inputs, ie, they are often vertically integrated.
212. For a vertically integrated MNO competing in both the SMS termination service market and wholesale A2P SMS market for delivery of messages on its own network, the incentive to raise A2P SMS termination charges above the competitive level also arises because higher charges will, concurrently:
 - a. raise costs for its competitors in the downstream market for the supply of wholesale A2P SMS on its own network – particularly Pivotel, which is unlikely to benefit from any potential offsetting price effects described above – enabling it to expand in that market by offering on-net supply; and
 - b. enable it to set profit maximising prices for the monopoly provision of on-net supply to SMS aggregators without a competitive constraint imposed by providers of off-net A2P SMS on its network, who require A2P SMS termination services as an input.
213. This is illustrated in figure 4.2 below using the upstream markets for A2P SMS termination services and wholesale A2P SMS for delivery on the Telstra network as an example. In this example, Telstra is able to set a price above the competitive level for A2P SMS termination services to raise the cost of providing off-net supply to SMS aggregators for Pivotel and potentially Optus. At the same time, in the example shown, Telstra can set a slightly lower price than offered by Pivotel for on-net supply to squeeze its competitor out of the market and increase its own market share and profit in the wholesale A2P SMS market for delivery of messages on its own network. Optus may also be prevented from competing with Telstra to offer wholesale A2P SMS to SMS aggregators by consequence of higher input costs, resulting in limited competition and leaving aggregators with little choice in the market for the delivery of messages on the Telstra network.

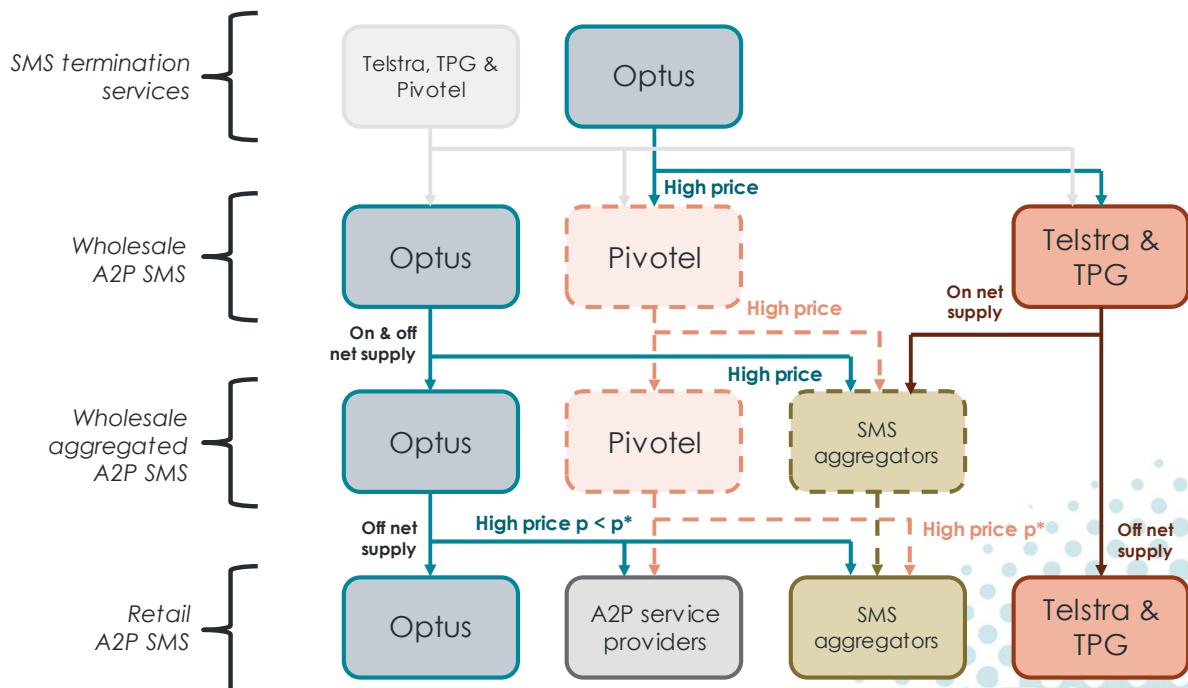
¹¹⁴ See section 2.3.3.

Figure 4.2: Example of the incentive to raise A2P SMS termination charges on the Telstra network



- 214. Vertically integrated MNOs competing in the downstream market for the supply of aggregated A2P SMS services also have an incentive to increase A2P SMS termination charges above the competitive level to raise their rivals' costs in that market, where possible, enabling them to expand in the market to increase profits and benefit from a reduction in the intensity of competition.
- 215. This is illustrated in figure 4.3 below using Optus as an example of a vertically integrated firm competing with Pivotel in the downstream market for aggregated A2P SMS. In this example, Optus is able to increase termination charges for Pivotel, raising its overall cost of providing off-net supply to SMS aggregators and A2P service providers in the downstream markets. Optus may also be able to increase supply costs for SMS aggregators in the wholesale market by way of on-net prices. Optus can then set a slightly lower wholesale price in the aggregated A2P SMS market to gain market share from Pivotel and other competitors, while setting price above cost and increasing its profits.

Figure 4.3: Example of the incentive to raise A2P SMS termination charges on the Optus network



216. It follows that MNOs competing in the market for wholesale aggregated A2P SMS, such as Optus, have a particular incentive to raise A2P SMS termination charges for MNOs unable to benefit from a balance of A2P traffic by consequence of a smaller directly connected customer base, such as Pivotal.
217. These circumstances are consistent with average A2P SMS termination charge increases offered to Pivotal by Telstra, TPG and Optus of between approximately [REDACTED] since declaration lapsed in 2020,¹¹⁵ implying the major MNOs have the ability and incentive to set such charges above competitive levels.

4.1.2 A2P SMS termination charges in a future with declaration

218. In a future with declaration of an MTAS for SMS, MNOs will be prevented from exercising their monopoly power, ensuring A2P SMS input costs are lower in the downstream markets for wholesale A2P SMS services.

Ability and incentive to raise A2P SMS termination charges above competitive level

219. MNOs will not have the ability to raise A2P SMS termination charges above a competitive, cost-based level because we assume prices will be regulated at the cost of providing the service in a future with declaration.¹¹⁶ This is despite SMS termination services being an essential input for off-net supply of A2P SMS.¹¹⁷
220. Where MNOs do not have the ability to raise charges, any incentive they may have to do so is irrelevant for further analysis of the effects on competition.

Ability and incentive to raise on-net supply prices above competitive level

221. An additional consequence of price regulation for A2P SMS termination charges will be that MNOs will not have the ability and incentive to raise on-net supply prices in the relevant wholesale market above a competitive level.
222. We explain in paragraphs 156 to 160 that on-net and off-net supply are substitutes in the market for wholesale A2P SMS to be delivered on a given mobile network. Since SMS aggregators can substitute between on-net and off-net supply, the price of wholesale on-net A2P SMS will be subject to a competitive constraint from off-net A2P SMS, which will be provided using regulated A2P SMS termination services as an input.
223. Accordingly, MNOs providing on-net supply for the delivery of A2P SMS on their own networks to SMS aggregators will not have the ability or incentive to raise prices above a level that is competitive with price of off-net supply for A2P SMS.
224. This is consistent with the effect of declaration of the MTAS for SMS on wholesale A2P SMS prices in 2016. We explain in paragraph 109 that when termination charges were regulated in 2016, the wholesale price of A2P SMS fell to two cents per message from approximately:
- a. four cents per message for on-net services; and
 - b. nine cents per message for off-net services.

¹¹⁵ See paragraph 120.

¹¹⁶ See paragraph 185.

¹¹⁷ See paragraphs 73-74.

225. The ACCC also notes that the price regulation that took effect from 2016 ensured all MNOs were provided with access to SMS termination services and prices in wholesale markets for A2P SMS were aligned with costs.¹¹⁸

4.2 Effect of declaration on competition in related markets

226. In the material below, we assess the likely effect on competition in the related downstream markets of a future with declaration of A2P SMS termination services relative to a future without declaration, where:
- a. in a future without declaration, MNOs have the ability and incentive to raise A2P SMS termination charges and on-net supply prices above a competitive, cost-based level; and
 - b. in a future with declaration, A2P SMS termination charges will be regulated at the cost of providing the service and on-net supply prices for A2P messages will be subject to competition from off-net supply.
227. Competition is likely to be stronger in the wholesale and retail markets for A2P SMS in a future with declaration, relative to a future without declaration, because:
- a. Pivotal will be an effective competitor, providing a competitive constraint on the major MNOs offering on-net and off-net services in the wholesale A2P SMS market, and on MNOs and SMS aggregators in the wholesale aggregated A2P SMS market;
 - b. all MNOs will be able to compete on the basis of cost-based input prices to provide off-net A2P SMS to SMS aggregators in the wholesale A2P SMS markets and A2P service providers in the wholesale aggregated A2P SMS market;
 - c. regulation will impose a constraint on the price of monopoly provided on-net services supplied to SMS aggregators, reducing their input costs and enabling them to compete more effectively against MNOs in the downstream wholesale and retail markets; and
 - d. access to competitively priced off-net services in wholesale markets will enable A2P service providers and MNOs to compete effectively against vertically integrated SMS aggregators and other MNOs and encourage entry in the retail market relative to a future without declaration, reflecting greater contestability in the market.
228. In a future with declaration, retail prices are likely to reflect the efficient costs of providing A2P SMS services, giving rise to allocative efficiency. Such changes in price and market structure are likely to adjust over time as market participants adapt to the new competitive conditions. In our opinion, these outcomes are in the long-term interests of end-users.

4.2.1 Effect on competition in the wholesale A2P SMS markets

229. In the markets for wholesale A2P SMS for delivery of messages on each network, MNOs provide:
- a. off-net supply for delivery of messages on a network other than their own using A2P SMS termination services as an input; or
 - b. on-net supply for delivery of messages on their own network.
230. In a future without declaration, both off-net and on-net supply prices are likely to be higher than they would be under cost-based price regulation because MNOs have the ability and incentive to increase prices.

¹¹⁸ See paragraph 110.

231. Major MNOs will be able to increase the cost of off-net supply for other MNOs by raising termination charges above a competitive, cost-based level.
232. In particular, we explain in paragraphs 212 to 217 that the major MNOs will have the ability and incentive to increase Pivotel's costs in the wholesale market by raising A2P SMS termination charges. Small MNOs, such as Pivotel, are likely to find it increasingly difficult to compete in the wholesale market by consequence of higher input costs relative to MNO competitors in the absence of regulated prices.
233. By way of example, we explain in paragraph 120 that Telstra, Optus and TPG have increased or proposed to increase SMS termination charges applying to the delivery of A2P SMS by Pivotel by between [REDACTED] per cent since the removal of regulated prices at the start of 2020. Under such circumstances, Pivotel is unlikely to remain a viable competitor against MNOs that are able to access lower SMS termination charges by consequence of a more equal balance of SMS traffic.
234. [REDACTED] It follows that restrictions on Pivotel's ability to compete effectively are likely to have a significant effect on the intensity of competition in those markets and relevant downstream markets.
235. To a lesser extent, some major MNOs may also have the ability and incentive to increase other MNO's costs in the wholesale market, which we explain in paragraphs 205 to 209 above will depend on their relative sizes and market shares in the A2P markets, ie, the balance of A2P traffic between them.
236. MNOs with a size disadvantage may be subject to higher input costs for providing off-net supply relative to a competitor providing on-net supply of A2P SMS on a given network. By way of example, Telstra may be able to set termination charges and on-net supply prices such that Optus or TPG is prevented from offering off-net supply for messages to be delivered on the Telstra network at a competitive price to SMS aggregators. Those actions would also reduce competition in the wholesale markets.
237. On the other hand, in a future with declaration, all MNOs will have access to cost based A2P SMS termination charges. In particular, Pivotel will not be disadvantaged by its size and bargaining position relative to larger MNOs and will be able to offer competitively priced off-net supply to SMS aggregators. This is consistent with Pivotel's entry into the wholesale A2P SMS markets following declaration and price regulation in 2016.¹²⁰
238. Regulated termination charges will also enable MNOs to provide competitively priced off-net supply to compete against other MNOs providing on-net supply to SMS aggregators. As such, on-net supply prices will be subject to an effective competitive constraint from off-net supply.
239. Accordingly, SMS aggregators will have access to competitive prices for on-net and off-net wholesale A2P SMS in a future with declaration. We explain in paragraph 224 above that this is consistent with the effect of declaration on wholesale prices in 2016.
240. In summary, declaration is likely to promote competition in the markets for wholesale A2P SMS by enabling Pivotel and other MNOs to compete effectively to provide competitively priced wholesale services to SMS aggregators.

¹¹⁹ See paragraph 86.

¹²⁰ See paragraph 109.

4.2.2 Effect on competition in the wholesale aggregated A2P SMS market

241. In the market for wholesale aggregated A2P SMS for the delivery of messages across all networks, SMS aggregators and some MNOs compete to provide services to retailers, including A2P service providers. MNOs provide such services using A2P SMS termination services as an input.
242. We explain in section 4.2.1 above that in a future without declaration, Pivotel is likely to be subject to higher input costs for providing off-net supply relative to its MNO competitors. This will restrict Pivotel's ability to offer competitive prices to A2P service providers in the downstream wholesale aggregated A2P SMS market.
243. Other MNOs with a size disadvantage may also be prevented from competing effectively in the wholesale aggregated A2P SMS market if they are subject to higher input costs relative to MNO competitors or SMS aggregators accessing on-net supply.
244. As a result, wholesale prices are likely to be higher and the intensity of competition between MNOs and SMS aggregators offering A2P SMS to A2P service providers will be weaker than it otherwise may be under cost-based price regulation. A2P service providers will have fewer suppliers to choose between and there will be fewer incentives for sellers to innovate or improve the quality of their service offering.
245. On the other hand, in a future with declaration, all MNOs will have access to cost-based input prices when providing off-net supply and SMS aggregators will have access to competitively priced inputs in the upstream market through either off-net or on-net supply.
246. MNOs will not have the ability to reduce competition from Pivotel by raising its upstream costs, enabling it to compete with SMS aggregators and MNOs to supply A2P SMS to A2P service providers.
247. Similarly, large MNOs will not be able to raise A2P SMS termination charges for rival MNOs that may otherwise have a relative size disadvantage or potential new entrants to the market, implying there will be greater contestability and competition in the market.
248. We understand that there are only a small number of large SMS aggregators operating in Australia.¹²¹ The participation of MNOs in the aggregated A2P SMS market will further increase the competitive constraint on large SMS aggregators, which may otherwise hold a significant share of the market.
249. It follows that wholesale prices offered to A2P service providers are likely to be lower and the intensity of competition is likely to be greater in the wholesale aggregated A2P SMS market a future with declaration and price regulation than without. Greater price competition between firms is also likely to give rise to more innovation and improvements in the quality of services provided.

4.2.3 Effect on competition in retail A2P SMS market

250. In the market for the supply of retail A2P SMS, vertically integrated MNOs compete against SMS aggregators and A2P service providers to supply A2P SMS services to end-users, including small, medium and large businesses.
251. Vertically integrated MNOs can provide off-net services directly to end-users, bypassing intermediate levels of the supply chain. This is illustrated by the position of Telstra and TPG in figure 4.3 above. However, A2P SMS termination charges for delivery of messages on each network contribute to the cost of supply.

¹²¹ See paragraph 90.

252. We explain in sections 4.2.1 and 4.2.2 above that in a future without declaration, Pivotal and some other MNOs may find it harder to compete in upstream markets through higher input costs, resulting in higher wholesale prices and less choice for retail A2P service providers.
253. In such circumstances, A2P service providers will be less able to compete effectively against vertically integrated SMS aggregators and MNOs to offer retail A2P SMS services at competitive prices to end-users in the retail market. Some MNOs and SMS aggregators may also be less able to offer competitive prices to end-users by consequence of higher input costs in upstream markets.
254. As a result, there is likely to be less competition, less variety and choice, and higher prices for end-users in the retail market in a future without declaration, relative to a future with declaration. MNO retailers are also likely to have fewer incentives to innovate and improve the quality of their service offering in the absence of strong competition from a range of market participants, reducing the potential for dynamic efficiency.
255. On the other hand, we explain in section 4.2.2 above that in a future with declaration there is likely to be more choice and lower prices for A2P service providers in the upstream wholesale market. This will enable A2P service providers to access lower input costs and compete effectively with SMS aggregators and MNOs in the retail market.
256. All MNOs will also have access to cost-based input prices when providing off-net services directly to end-users in retail markets. This will enable all MNOs to compete effectively in the retail market, eliminating any market power held by larger MNOs due to size.
257. As a result, there is likely to be greater contestability in the retail A2P SMS market in a future with declaration, giving rise to cost-based, competitive prices for end-users and improvements in service quality and innovation.
258. This is consistent with the entry of MNOs into the retail A2P SMS market following declaration of the MTAS for SMS in 2014. We explain in paragraph 111 that MNOs began competing with A2P service providers to supply retail A2P SMS services to large enterprise customers following declaration.
259. Lower prices are also likely to result in an expansion of the retail market. Economic principles imply that where prices are lower by consequence of a reduction in the cost of supply, ie, a downwards shift in the supply curve, there will be an increase in the number of units demanded by end-users, increasing the overall size of the market and enabling more competitors to enter.
260. Finally, competitive prices for retail A2P SMS that reflect the efficient cost of supply will give rise to allocative efficiency.
261. In summary, in our opinion, there is likely to be greater competition in the retail A2P SMS market in a future with declaration relative to a future without declaration, giving rise to lower prices and higher quality for end-users. These effects are in the long-term interests of end-users.

4.3 Effect of greater competition on efficiency

262. We note in paragraph 41 above that we focus on the effect of declaration of an MTAS for SMS on the promotion of competition in the relevant markets for A2P SMS in this report. However, we note that the ACCC must also consider whether declaration will achieve the objective of encouraging the efficient use of and investment in infrastructure, examined by reference to three components of efficiency, ie, productive, allocative, and dynamic efficiency.¹²²

¹²² See, for example: ACCC, *Public inquiry into the declaration of the domestic transmission capacity service, fixed line services and domestic mobile terminating access service*, Discussion paper, May 2023, p 8.

263. As such, we provide a brief assessment of the likely effect of the promotion of competition in the relevant wholesale and retail markets on efficiency in those markets in the material below, noting that we are not aware of and have not assessed any other efficiency effects likely to arise by consequence of declaration, including those that may be more technical in nature.
264. Competition leads to economic efficiency, which is attained when given resources are allocated in such a way to maximise the welfare, or economic surplus, of all individuals.¹²³ The Harper review set out a number of benefits brought by increased competition, ie:¹²⁴
- More competitive markets can lead to: lower resource costs and overall prices; better services and more choice for consumers and businesses; stronger discipline on businesses to keep costs down; faster innovation and deployment of new technology; and better information, allowing more informed choices by consumers.
265. Economists recognise three types of efficiency that can be enhanced or improved as a result of greater rivalry between producers, ie:¹²⁵
- a. productive efficiency, which refers to a market outcome whereby products and services are provided at the lowest possible cost, using facilities of optimal scale, over the long run, with existing technology;¹²⁶
 - b. dynamic efficiency, which refers to the achievement of efficient levels and types of investment in new and improved products and production processes;¹²⁷ and
 - c. allocative efficiency, which refers to a market outcome whereby prices and profit levels are consistent with the real resource cost of supplying each product, including a normal profit reward to suppliers – where this is the case, society’s resources will be allocated between end uses in an optimal way such that goods and services that are produced best accord with consumer demand.¹²⁸
266. Competition acts to increase each of these forms of efficiency.
267. Productive efficiency is increased as a result of greater competition because:¹²⁹
- a. firms have an incentive to cut their costs so that they can reduce prices and increase sales; and
 - b. firms that have lower costs grow and gain market share, whilst others shrink.

¹²³ Morgan, M Katz, and Rosen, H, *Microeconomics*, McGraw-Hill Education, United Kingdom, 2006, pp 434-435; and Productivity Commission, *On efficiency and effectiveness: some definitions*, May 2013, p 2.

¹²⁴ Competition Policy Review Panel, *Competition Policy Review Issues Paper*, 14 April 2014, p 8, para 1.2.

¹²⁵ See also, ACCC, *Submission to Harper Review*, 25 June 2014, p 14.

¹²⁶ Pass, C, Lowes B, and Davies L, *Economics (Collins Internet-Linked Dictionary of)*, HarperCollins Publishing, June 2014, p 45 of 64 in ‘P’ section; Motta, M, *Competition Policy: Theory and Practice*, Cambridge University Press, United States, 2009, p 45; and Morgan, W, Katz, M, and Rosen, H, *Microeconomics*, McGraw-Hill Education, United Kingdom, 2006, p 428.

¹²⁷ Morgan, W, Katz, M, and Rosen, H, *Microeconomics*, McGraw-Hill Education, United Kingdom, 2006, p 428.

¹²⁸ Pass, C, Lowes B, and Davies L, *Economics (Collins Internet-Linked Dictionary of)*, HarperCollins Publishing, June 2014, p 15 of 32 in ‘A’ section; and Morgan, W, Katz, M, and Rosen, H, *Microeconomics*, McGraw-Hill Education, United Kingdom, 2006, p 424.

¹²⁹ Motta, M, *Competition Policy: Theory and Practice*, Cambridge University Press, United States, 2009, p 52; and Vickers, J, *Concepts of Competition*, Oxford Economic Papers, vol. 97, 1995, p 1.

268. Dynamic efficiency is increased because competition pushes firms to invest and innovate, in order to improve their competitive position relative to their rivals.¹³⁰
269. Allocative efficiency is increased because the lower prices brought about by competition can be presumed to lead to higher levels of output, ie, consumers will buy more when prices are lower, which reflects an increase in consumer surplus. Similarly, a reduction in competition leads to higher prices and so less output, thereby reducing allocative efficiency and welfare.
270. We explain in section 4.2 above that in a future with declaration, relative to a future without declaration, competition is likely to be promoted in the wholesale A2P SMS markets, wholesale aggregated A2P SMS market and retail A2P SMS market, implying:
- a. wholesale and retail prices are more likely to reflect the efficient cost of providing each service, giving rise to allocative efficiency and the efficient use of infrastructure; and
 - b. MNOs, SMS aggregators and A2P service providers are likely to face greater incentives to innovate and invest to gain a competitive advantage over their rivals, giving rise to dynamic efficiency.
271. Further, in a future with declaration, MNOs, SMS aggregators and A2P service providers competing at various levels of the supply chain will also have an incentive to streamline their operations to minimise costs where possible, giving rise to productive efficiency.
272. It follows that the promotion of competition in the wholesale and retail markets for A2P SMS is likely to give rise to an increase in productive, dynamic, and allocative efficiency in those markets, all else equal. An improvement in efficiency is in the long-term interests of end-users.

¹³⁰ Motta, M, *Competition Policy: Theory and Practice*, Cambridge University Press, United States, 2009, p 56. A 2011 study by the Productivity Commission and Australian Bureau of Statistics, using data from the Business Longitudinal Database, found that firms are more likely to innovate if they face stronger competition, and that innovation is associated with better productivity outcomes – see Soames, L, Brunner D, and Talgaswatta, T, *Competition, Innovation and Productivity in Australian Businesses*, 9 September 2011. Further, the empirical evidence collated by the OECD across economies shows a positive correlation between product market competition, innovation and economic growth. For further discussion of competition and incentives for dynamic efficiency see: ACCC, *Submission to Harper Review*, 25 June 2014, p 14.



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