Queensland Competition Authority

Final recommendation

Part B: Queensland Rail declaration review

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Contents

1 INTRODUCTION

1.1 The existing declaration

The use of Queensland Rail's below-rail network, as specified in s. 250(1)(b) of the QCA Act, is taken to be declared under Part 5, division 2 of the QCA Act (see Box 1).

The regulatory framework for the existing declaration is governed by the QCA Act, as well as Access Undertaking 1[1] (AU1), which was approved by the QCA on 11 October 2016 and expires on 30 June 2020. AU1 sets out the terms and conditions under which Queensland Rail provides access to its service. AU1 also addresses the process required for an access seeker to negotiate access to the service, and the way in which any disputes in relation to access are to be resolved.

Box 1: The declared service

Section 250(1)(b) of the QCA Act provides that the following service is taken to be a service declared under Part 5, division 2 of the QCA Act:

> the use of rail transport infrastructure for providing transportation by rail if the infrastructure is used for operating a railway for which Queensland Rail Limited, or a successor, assign or subsidiary of Queensland Rail Limited, is the railway manager

The meaning of 'railway manager' and 'rail transport infrastructure' are defined in the *Transport Infrastructure Act 1994* (Qld), schedule 6.

1.2 Queensland Rail's below-rail network

Queensland Rail manages a rail network that extends more than 6,600 kilometres across Queensland and is used by freight and passenger trains.[2]

Queensland Rail provides the below-rail service as well as above-rail passenger services on its network. Pacific National, Aurizon Operations, Linfox and Watco (from December 2019[3]) provide above-rail freight services on various parts of the network. A map of Queensland Rail's network is in Figure 1.[4]

[1] Queensland Rail, *Access Undertaking 1*, approved by the QCA 11 October 2016, https://www.queenslandrail.com.au/business/acccess/Access%20Undertaking%20and%20related%20documents/Queensland%20Rail%20Access%20Undertaking%201%202016.pdf.

[2] Queensland Rail, sub. 8, p. 2.

[3] Watco Companies, Rail Services: Australia, accessed 7 February 2020, https://www.watcocompanies.com/services/rail/australia/.

[4] This map is a simplified representation of the main railway track, and it does not show all rail transport infrastructure as defined within the meaning of the existing declaration.

Figure 1 Queensland Rail network

Source: QCA website, https://www.qca.org.au/Rail/Queensland-Rail/Qld-Rail-rail-systems.

Queensland Rail describes its network as comprising seven regional 'systems' and the Metropolitan 'system'.[5] These systems are highlighted in Figure 1, and based on Queensland Rail information, can be summarised as follows:

- Tablelands system (dark blue on the map above)—comprises two corridors from Cairns to Forsayth and Normanton to Croydon. The system is currently used exclusively by tourist services.[6]
- North Coast Line (purple)—extends between Nambour (north of Brisbane) to Cairns.[7] It services major population centres in Brisbane, Bundaberg, Gladstone, Rockhampton, Mackay, Townsville and Cairns as well as various ports along Queensland's eastern coastline. The line primarily transports intermodal/containerised freight, agricultural products and various regional passenger services.[8]
- Mount Isa Line (dark green)—extends from Stuart (near Townsville) to Mount Isa, and includes the Flynn to Phosphate Hill branch line. The line carries bulk minerals from the North West Minerals Province east to the Port of Townsville and carries mining and

[5] Queensland Rail, sub. 8, p. 2.
[6] Queensland Rail, sub. 33, p. 73.
[7] The Parana to Rocklands and Kaili to Durroburra sections of the North Coast Line (in the Central Queensland Coal Network region) are currently managed by Aurizon Network.
[8] Queensland Rail, sub. 33, pp. 63–64.

industrial inputs west into the Mount Isa region. It also carries a small amount of livestock as well as four one-way passenger services per week.[9]

- Central Western system (orange)—comprises the main line from Nogoa to Winton and the Clermont branch (from Emerald to Clermont). The system carries agricultural products including grain and livestock, as well as four one-way passenger services per week.[10]
- Western system (light blue)—comprises the main line from Miles to Quilpie, and a number of branch lines, including Dalby to Meandarra (Glenmorgan), Miles to Wandoan, and Westgate to Cunnamulla.[11] The system carries agricultural freight including grain and livestock, as well as four one-way passenger services per week (on the 'Westlander' from Brisbane to Charleville).[12]
- West Moreton system (pink)—extends from Rosewood to Miles. The system primarily carries coal, as well as agricultural products and regional passenger services.[13]
- Metropolitan system (light green)—radiates from the Brisbane central business district. It is bounded by Rosewood to the west and Nambour to the north, and extends south to Varsity Lakes station in the Gold Coast region, as well as south-west to the Acacia Ridge Terminal (where it connects with the interstate rail system to New South Wales).[14] It is primarily used for commuter passenger services and is also an important rail freight connection, including for coal and agricultural products travelling from the west to the Port of Brisbane; intermodal freight travelling interstate and between Brisbane and north Queensland; and livestock travelling from the central west and north west regions to processing facilities in Brisbane.[15] Currently, all interstate traffic (i.e. to/from New South Wales) must travel on the Metropolitan system and transfer to the interstate rail system at Acacia Ridge.[16]
- South Western system (yellow)—extends from Toowoomba south-west to Thallon, including the Wyreema to Millmerran and Warwick to Wallangarra branch lines. This system primarily carries agricultural products including grain.[17]

1.3 Structure of Part B

The assessment of the service that Queensland Rail provides is set out in this part (Part B) in the following order:

- Service and facility
- Criterion (a)
- Criterion (b)
- Criterion (c)

[9] Queensland Rail, sub. 33, pp. 65–66.
[10] Queensland Rail, sub. 33, pp. 72–73.
[11] Queensland Rail information shows that currently, the Charleville to Cunnamulla, Miles to Wandoan and Tycanba to Jandowae branch lines on this system are non-operational: Queensland Rail, sub. 33, p. 69, para. 352.
[12] Queensland Rail, sub. 33, pp. 69–70.
[13] Queensland Rail, sub. 33, pp. 66–67.
[14] ARTC, sub. 22, p. 2. The section of rail track extending from the Acacia Ridge Terminal south to the Queensland-New South Wales border is currently leased by the Australian Rail Track Corporation (ARTC).
[15] Queensland Rail, sub. 33, attachment A, p. 5, table A1.
[16] There is a change of rail gauge at Acacia Ridge, as Queensland rail networks are narrow gauge (1,067 mm), and New South Wales rail networks are standard gauge (1,435 mm).
[17] Queensland Rail, sub. 33, p. 70, para. 380; sub. 33, attachment A, p. 4.

- Criterion (d).

1.4 Final recommendation

The QCA's final recommendation is that parts of the below-rail service provided by Queensland Rail, as described in s. 250(1)(b) of the QCA Act[18], be declared. Specifically, the QCA recommends that the following parts of the service, each of which is itself a service within the meaning of s. 72 of the QCA Act, be declared:

- the North Coast Route service
- the Mount Isa Route service
- the West Moreton Route service
- the Central Western Route service
- the Western Route service
- the South Western Route service.

The QCA recommends that each of these parts of the service be declared for a period of 15 years.

The QCA recommends that the Tablelands system service not be declared.

Each of these parts of the service is defined in Appendix B.

1.5 The NCC's recommendation in the Port of Newcastle matter

On 24 September 2019, the National Competition Council (NCC) released its recommendation to revoke the declaration of the service at the Port of Newcastle.[19]

The NCC found that criterion (a)[20] was not satisfied, and that the Minister could reasonably form the view that criterion (d)[21] was not satisfied. In making these recommendations, the NCC considered the declaration criteria in s. 44CA of the *Competition and Consumer Act 2010* (Cth) (CCA). These declaration criteria are substantially similar to the access criteria applied by the QCA under s. 76 of the QCA Act.

The QCA notes that the service provided by Queensland Rail is materially different from the service provided by the Port of Newcastle Operations (PNO). Queensland Rail provides access to its below-rail services, which is used by its customers to haul freight across the state, whereas PNO provides the right to access and use the shipping channels at the port, by which ships may enter, exit, load and unload at the relevant port terminals.[22] The users of the Port of Newcastle service are generally homogenous (e.g. coal miners or their shipping agents), in contrast with the users of the Queensland Rail service, who are likely to be varied and operate in a variety of dependent markets, including mining, industry, agriculture, retail and logistics.

[18] That is, 'the use of rail transport infrastructure for providing transportation by rail if the infrastructure is used for operating a railway for which Queensland Rail Limited, or a successor, assign or subsidiary of Queensland Rail Limited, is the railway manager'.
[19] The NCC released its recommendation following the decision of the Minister (the Federal Treasurer) to revoke the declaration of the service at the Port of Newcastle on the same day.
[20] Section 44CA(1)(a) of the CCA.
[21] Section 44CA(1)(d) of the CCA.
[22] NCC, *Revocation of the declaration of the shipping channel service at the Port of Newcastle*, final recommendation, July 2019, para. 3.1.

The NCC considered that charges for the Port of Newcastle service were likely to remain a small proportion of the international spot prices of coal with or without declaration of the service. In contrast, the QCA considers that due to the nature of the services provided by Queensland Rail, and given submissions from stakeholders, it is likely that the access charges of Queensland Rail would be a material part of the overall supply chain costs of access seekers/users. Moreover, Queensland Rail would have an ability and incentive to exercise market power at time of contract renewal.

The NCC considered that there were a range of factors that would mitigate the risk of hold-up, including the impact on PNO's reputation and its lease agreement with the State. In the context of the submissions received, the QCA is not persuaded by Queensland Rail's arguments that hold-up would not occur. In particular, in relation to the Queensland Rail service, the QCA considers that long-term contracts and the prospect of reputational damage are not effective solutions to hold-up.

In considering whether the threat of reputational damage is an effective constraint on Queensland Rail's ability and incentive to exercise market power, the QCA had regard to whether Queensland Rail's conduct is transparent to other access seekers. Relevantly, in a future without declaration, there would not be oversight, or transparency, of Queensland Rail's access terms, including pricing terms.[23] It is likely that Queensland Rail would continue to bilaterally negotiate access terms with individual customers.

In contrast, the NCC noted that PNO advertises its fees for accessing its service in a 'Schedule of Service Charges' which is available on its website.[24] While PNO appears to charge different amounts for different types of users of the service, its Schedule of Service Charges provides for the same navigation service charge, wharfage charge and port security charge rates to be imposed on all coal vessels, regardless of the operator or whose coal is being carried.[25]

The QCA considers that the different conclusions reached by the NCC and the QCA are likely due to the differences between the services provided by PNO and that provided by Queensland Rail.

[23] The QCA considers the effect of Queensland Rail's access framework in Part B, Chapter 4.

[24] NCC, *Revocation of the declaration of the shipping channel service at the Port of Newcastle*, final recommendation, July 2019, para. 7.145.

[25] NCC, *Revocation of the declaration of the shipping channel service at the Port of Newcastle*, final recommendation, July 2019, para. 7.146.

2 THE SERVICE AND FACILITY

2.1 Introduction

The starting point of the review of Queensland Rail's declaration is s. 250(1)(b) of the QCA Act:

> the use of rail transport infrastructure for providing transportation by rail if the infrastructure is used for operating a railway for which Queensland Rail Limited, or a successor, assign or subsidiary of Queensland Rail Limited, is the railway manager

'Railway manager' and 'rail transport infrastructure' are defined in the *Transport Infrastructure Act 1994* (Qld) (TI Act).[26] Specifically, 'rail transport infrastructure' is defined in schedule 6 of the TI Act[27] as:

> facilities necessary for operating a railway, including—
>
> (a) railway track and works built for the railway, including, for example–
>
> - cuttings
> - drainage works
> - excavations
> - land fill
> - track support earthworks; and
>
> (b) any of the following things that are associated with the railway's operation–
>
> - bridges
> - communication systems
> - machinery and other equipment
> - marshalling yards
> - notice boards, notice markers and signs
> - overhead electrical power supply systems
> - over-track structures
> - platforms
> - power and communication cables
> - service roads
> - signalling facilities and equipment
> - stations
> - survey stations, pegs and marks
> - train operation control facilities
> - tunnels
> - under-track structures; and

[26] Section 250(5) and schedule 2 of the QCA Act.
[27] Reprint current from 11 April 2019.

(c) vehicle parking and set down facilities for intending passengers for a railway that are controlled or owned by a railway manager or the chief executive; and

(d) pedestrian facilities, including footpath paving, for the railway that are controlled or owned by a railway manager or the chief executive;

but does not include other rail infrastructure.[28]

2.2 Identifying the service

2.2.1 Stakeholder submissions

Stakeholders did not dispute that the service is defined in s. 250(1)(b) of the QCA Act. However, stakeholders commented on whether Queensland Rail's service should be analysed as a single service or a series of smaller services.

Queensland Rail said that it provides eight services, being the use of the following eight sections of its network:

- the Mount Isa Line, being that part of the network bounded to the east by (and including) Stuart and to the west by (and including) Mount Isa and including all branch lines comprised in that part of the network;
- the North Coast Line, being those parts of the network bounded to the south by (and including) Nambour station, to the north by (and including) Cairns and to the west by (but excluding) Stuart and including all branch lines, comprised in that part of the network, including those in the Maryborough area and Taragoola to Graham;
- the West Moreton System, means that part of the network comprising the rail corridor from (and including) Rosewood to Miles, excluding all branch lines not directly connecting coal mine loading facilities to that rail corridor;
- the Western System, being those parts of the network bounded to the east by (and including) Miles and to the west by (and including) Quilpie and including all branch lines comprised in that part of the network, but excluding those parts of the network that are part of the West Moreton System;
- the South Western System, being that part of the network bounded to the west by (and including) Thallon, to the north by (and including) Toowoomba and to the south by (and including) Wallangarra and including all branch lines comprised in that part of the network including Wyreema to Millmerran branch line;
- the Central Western System, being that part of the network bounded to the east by (and including) Nogoa, to the north by (and including) Clermont and to the west by (and including) Winton and including all branch lines comprised in that part of the network;
- the Tablelands System, being those parts of the network bounded to the west by (and including) Normanton and to the east by (and including) Cairns and including all branch lines comprised in those parts of the network; and
- the Metropolitan System, being that part of the network bounded to the north by (and including) Nambour station and to the west by (and including) Rosewood and including all branch lines comprised in that part of the network.[29]

While Queensland Rail acknowledged that each service entails the use of rail transport infrastructure for providing transportation by rail, it said such a definition (as set out by the QCA in the draft recommendation) lacks the specificity required for regulation under the QCA Act.[30]

[28] The definitions of terms within the meaning of 'rail transport infrastructure' (for example, 'other rail infrastructure', 'railway' and 'railway manager') also appear in schedule 6 of the TI Act.
[29] Queensland Rail, sub. 33, p. 11, para. 52.

Queensland Rail argued that each service being assessed should be defined by reference to the sections of railway line used to provide this service. [31] It said this approach is:

- implicit in the specification of the service in s. 250(1)(b) of the QCA Act, where the service is defined by reference to the railway for which Queensland Rail is the railway manager (i.e. the whole of Queensland Rail's narrow gauge network)
- implicit in the QCA's approach in the draft recommendation to identifying parts of the service, and specifically the eight rail systems constituting separate services to be assessed
- required, given the significant variation in the systems' supply chain dynamics, rail corridor characteristics and geographic locations.[32]

In addition, Queensland Rail noted that in the draft recommendation, the QCA considered some services 'together' for the purpose of assessing criterion (a), namely the services provided using the West Moreton system and Metropolitan system, and the services using the North Coast Line and Metropolitan system. Queensland Rail submitted that such an approach is unnecessary, as access applications can be made in respect of more than one service. However, it said that if the QCA is minded to consider the Metropolitan system together with the North Coast Line and the West Moreton system, it is appropriate to amend the definition of services offered to capture the relevant infrastructure used to provide the service. That is:

- the North Coast Line service would also include the use of the Metropolitan system from Nambour to Roma Street and to Fisherman Islands, Moolabin or Acacia Ridge
- the West Moreton system service would also include the use of the Metropolitan system from Rosewood to the Fisherman Islands via Corinda and Yeerongpilly.[33]

Queensland Rail further submitted that if such an approach was adopted by the QCA, the relevant service should be defined so that use of the Metropolitan system not in conjunction with the North Coast Line or the West Moreton system, is not captured.[34]

Queensland Rail noted its submissions address the eight services it has identified, however, it also noted that those arguments apply equally to the service as a whole and its analysis is not changed if the alternate definitions for the North Coast Line service and West Moreton system service are adopted.[35]

The South West Producers said the scope of the declaration means that access to all of Queensland Rail's rail network constitutes part of the declared service. While some of those rail lines are shown as distinct pieces of infrastructure (as in Figure 1), the South West Producers said it is important to note:

> freight to and from a number of parts of the network travel across other parts of the network, particularly including the South East Queensland network. That is, the 'services' provided are best understood on an origin-destination basis, which do not necessarily correspond to Queensland Rail's designation of its own lines and systems.[36]

[30] Queensland Rail, sub. 33, p. 10, para. 46.
[31] Queensland Rail, sub. 33, p. 10, para. 47.
[32] Queensland Rail, sub. 33, p. 10, paras 48–50.
[33] Queensland Rail, sub. 33, p. 12, paras 54–57.
[34] Queensland Rail, sub. 33, p. 12, para. 57.
[35] Queensland Rail, sub. 33, p. 12, para. 58.
[36] South West Producers, sub. 4, p. 9.

On this basis, from the perspective of the service provided on the West Moreton and Metropolitan systems, the South West Producers said the relevant service is either:

- the entirety of the Queensland Rail declared service as defined in the QCA Act (i.e. the entirety of the Queensland Rail network); or
- the use of rail transport infrastructure for providing transportation of coal to the Port of Brisbane by rail consisting of the West Moreton network, future extensions or expansions to it, and relevant parts of the South East Queensland network, including the dedicated dual gauge track from Lytton Junction to Fisherman Islands (the West Moreton corridor coal rail access service).[37]

The South West Producers noted this definition is closer to Queensland Rail's definition (than to the QCA's)—but is more appropriate, as it defines the service by reference to what the customer is acquiring, rather than being unnecessarily prescriptive about particular points in the Metropolitan system (which the South West Producers consider has the potential for making any declaration ineffective if Queensland Rail makes changes to how coal services utilise the Metropolitan system to access the Port of Brisbane during the declaration period).[38]

In addition, the South West Producers said that the rail access service utilised by coal producers with mines in the West Moreton system is properly considered as a single service involving access to parts of both the West Moreton and Metropolitan systems, given that:

- travelling only along the West Moreton system is of very limited utility on its own
- access is currently applied for and contracted on the basis of a service from a coal producers' rail load out to the QBH coal terminal at the Port of Brisbane (it is not contracted as separate services for each system)
- while it might be theoretically possible to apply for access separately, it would create additional risks (operationally and contractually) if access for each system had to be contracted separately.[39]

Glencore said the Mount Isa Line is a service in itself and should be assessed separately (as Queensland Rail has submitted). However, it said the service should be properly defined, including the rail links to the Port of Townsville, via the Jetty branch line—Queensland Rail's definition does not include the section of rail between Stuart and Townsville and this should form part of the service.[40]

2.2.2 QCA analysis

The QCA considers that the 'service' about which it must make a recommendation under s. 87A of the QCA Act is the service as a whole (i.e. use of the entire Queensland Rail network) as described in s. 250(1)(b). There is nothing in the text of the QCA Act that indicates the service currently declared consists of one or more separate rail systems.

If the QCA is not satisfied that the service described in s. 250(1)(b) of the QCA Act satisfies each of the access criteria, it may still recommend that a part of this service be declared if that part of the service is itself a service and satisfies each of the access criteria.[41] The QCA interprets

[37] South West Producers, sub. 4, p. 4; sub. 31, p. 4; sub. 40, p. 9.
[38] South West Producers, sub. 40, p. 9.
[39] South West Producers, sub. 40, p. 9.
[40] Glencore, sub. 41, p. 2.
[41] Sections 87A and 87C of the QCA Act.

s. 87A(1)(b) as contemplating a recommendation that one or more parts of a service may be declared (i.e. the reference to the singular 'part' includes the plural).

The QCA notes the description of services submitted by Queensland Rail, which sought to frame the services by reference to Queensland Rail's definitions of the various rail systems making up its network, being the:

- North Coast Line
- Mount Isa Line
- West Moreton system
- Metropolitan system
- South Western system
- Western system
- Central Western system
- Tablelands system.

The QCA considers that Queensland Rail's description of its rail systems is a convenient way to analyse the various components of the Queensland Rail network, since this is how the rail systems are widely described and understood by Queensland Rail and its users.

However, neither the separation of the network into these rail systems, nor the description given to each system by Queensland Rail, necessarily means that use of these systems constitute separate 'services' for the purpose of analysis under s. 87A of the QCA Act. Furthermore, these descriptions are not necessarily based on the economic activity in dependent markets that are potentially affected by the use of this rail infrastructure, as different parts of the Queensland Rail network are often used in combination with each other to provide rail access to customers in different dependent markets.

The operation of rail access services may necessitate the use of rail infrastructure in one or more rail systems. As a result, unless the provision of the service is confined to an individual system, the QCA has identified and defined services in terms of the use of 'routes', which encompass the relevant rail system(s) and other infrastructure that are necessary to operate that service.

This is central to the QCA's approach to identifying and defining the different 'parts' of the declared service, namely identifying the assets that are used to provide rail access services to customers in different dependent markets. Because of this approach to analysing the declared service, and the different parts of this service, the QCA has started with its assessment of criterion (a) in relation to the Queensland Rail service, rather than criterion (b).

2.2.3 Summary of QCA conclusions

In applying the access criteria, the QCA has first analysed the service as a whole—that is, the service as described in s. 250(1)(b) of the QCA Act. As discussed in section 3.3, the QCA considers that criterion (a) is not satisfied for the service as a whole. This precludes a recommendation that the whole of the service described in s. 250(1)(b) of the QCA Act be declared.

Therefore, the QCA has considered whether one or more parts of the service, which are themselves services, satisfy the access criteria. In summary, the QCA identified the following parts of the service on which it has conducted its assessment:

- the North Coast Route service
- the Mount Isa Route service
- the West Moreton Route service
- the Central Western Route service
- the Western Route service
- the South Western Route service
- the Tablelands system service.

The QCA considers that each of these parts of the declared service is itself a 'service' within the meaning of s. 72 of the QCA Act. Definitions of these terms are contained in Appendix B.

2.3 Identifying the facility

2.3.1 Stakeholder submissions

Stakeholders did not dispute that the facility for the service was defined in the QCA Act, but they also provided views on defining the facility by reference to rail systems.

Given that what is to be declared is the service rather than the facility, Queensland Rail submitted that it provides eight services (by reference to its rail systems) and the QCA is required to:

- identify the 'facility for the service' according to each of the eight services
- consider what the facility is (or facilities are), based on the minimum bundle of assets required to provide the relevant individual services (as in the approach outlined by the Australian Competition Tribunal in the Sydney International Airport case).[42]

Queensland Rail said this approach is consistent with the policy rationale of ensuring an access regime only facilitates access where required and does not unduly stifle competitive forces, and in the present case is simplified, given the services are defined by reference to the relevant parts of Queensland Rail's network.[43] With respect to identifying the facility, Queensland Rail argued that 'the QCA has not engaged with the question required of it' in the draft recommendation. When this inquiry is made, Queensland Rail said, it is clear that there are eight facilities.[44]

Other stakeholders also provided their views on how the facility should be defined, by reference to the infrastructure that is needed to provide the service:

- The South West Producers provided a preferred definition for the West Moreton corridor coal rail access service, with reference to infrastructure that they (or a similar customer) would need to use for the service.[45]
- Glencore considered the Mount Isa Line and said the service should be properly defined by reference to the rail access service for the Mount Isa Line including the rail links to the Port of Townsville, via the Jetty branch line.[46]

[42] Queensland Rail, sub. 33, pp. 12–14.
[43] Queensland Rail, sub. 33, p. 13, para. 62.
[44] Queensland Rail, sub. 33, p. 13, paras 60–66.
[45] South West Producers, sub. 40, p. 9.

2.3.2 QCA analysis

The QCA considers that the facility for the existing declared service is the facility described in s. 250(1)(b) of the QCA Act, that is, *rail transport infrastructure* if the infrastructure is used for operating a railway for which Queensland Rail Limited, or a successor, assign or subsidiary of Queensland Rail Limited, is the railway manager.

'Rail transport infrastructure' is defined in schedule 6 of the TI Act to mean 'facilities necessary for operating a railway', and includes not only the railway track, but also 'things that are associated with the railway's operation', such as bridges, marshalling yards, overhead electrical power supply systems and service roads. Thus, the facility for the declared service is all facilities included in the statutory definition of 'rail transport infrastructure'.

The QCA considers that the facilities for any part of the declared service (which is itself a service) will be the assets (that is, the rail transport infrastructure) used to provide rail access services to customers in different dependent markets.

2.3.3 Summary of QCA conclusions

Given the QCA's approach to identifying the relevant service(s) (see section 2.2), the QCA has first analysed the facility as a whole, and secondly identified the following facilities for each part of the service:

- the North Coast Route
- the Mount Isa Route
- the West Moreton Route
- the Central Western Route
- the Western Route
- the South Western Route
- the Tablelands system.

Each of these facilities should be understood to refer to all relevant rail transport infrastructure, and not just the railway track. Definitions of these terms are contained in Appendix B.

[46] Glencore, sub. 41, p. 2.

3 CRITERION (A)—PROMOTE A MATERIAL INCREASE IN COMPETITION

3.1 Introduction

Section 76(2)(a) of the QCA Act is expressed as follows:

> that access (or increased access) to the service, on reasonable terms and conditions, as a result of a declaration of the service would promote a material increase in competition in at least 1 market (whether or not in Australia), other than the market for the service

A summary of key matters raised by stakeholders with respect to criterion (a), as well as the QCA's final recommendations, are set out below in Table 1.

Table 1 Summary of key positions—s. 76(2)(a) of the QCA Act

Criterion (a)			
Issue	***Queensland Rail***	***Other stakeholders***	***QCA final recommendation***
Queensland Rail's service as a whole (i.e. as defined in s. 250(1)(b) of the QCA Act)	Criterion (a) is not satisfied in relation to the Queensland Rail service as a whole	Stakeholders discussed a variety of dependent markets across the various Queensland Rail systems	Criterion (a) is not satisfied. Analysis of parts of the service undertaken See section 3.3
Queensland Rail's access framework	In a future without declaration, the access framework ensures access will be provided on reasonable terms and conditions As such, declaration would not promote a material increase in competition in any dependent markets	The access framework will cause uncertainty of pricing and non-pricing terms of access, which will damage competition in a number of dependent markets	See Part B, Chapter 4
North Coast Route service	Criterion (a) is not satisfied in relation to any parts of Queensland Rail's service	Pacific National and Linfox considered criterion (a) was satisfied	Criterion (a) is satisfied See Part B, Chapter 5
Mount Isa Route service		Glencore considered criterion (a) was satisfied	Criterion (a) is satisfied See Part B, Chapter 6
West Moreton Route service		The South West Producers considered criterion (a) was satisfied	Criterion (a) is satisfied See Part B, Chapter 7
Central Western Route service		Watco and GrainCorp considered criterion (a) was satisfied with respect to the use of the Central Western, Western and South Western systems Linfox focused on the Central Western system and considered criterion (a) was	Criterion (a) is satisfied See Part B, Chapter 8
Western Route service			
South Western Route service			

Criterion (a)			
		satisfied	
Tablelands system service		No stakeholders made submissions relating specifically to the Tablelands system	Criterion (a) is **not** satisfied See Part B, Chapter 9

3.2 The QCA's approach to assessing criterion (a)

The QCA's approach to assessing criterion (a) has broadly involved the following. First, the QCA has identified relevant dependent markets (other than the market for the service).[47] Subsequently, the QCA has assessed whether access (or increased access) to the service, on reasonable terms and conditions, as a result of declaration, would promote a material increase in competition in at least one dependent market. This involves comparing the likely future with declaration and the likely future without declaration.

In particular, in comparing the future with declaration and the future without declaration, the QCA has assessed whether Queensland Rail has the ability and incentive to exercise market power, and if so, whether an exercise of that market power would have a material adverse effect on competition in a dependent market.

3.3 Dependent markets for the service as a whole

In assessing criterion (a), the QCA has first considered the service as a whole. Therefore, the QCA has sought to identify whether there is a market, other than the market for the service, that is dependent on access to the service as a whole.

Stakeholders identified a range of markets as separate from the market for Queensland Rail's service, but did not make detailed submissions to support the assessment of a single market that is dependent upon access to the whole of the service.

One possible market that is dependent upon access to the service as a whole may be an above-rail freight haulage market. The QCA has considered whether such a market exists, and based on the information before it, the QCA is not satisfied that such a market exists for the whole Queensland Rail service, for the purpose of assessing criterion (a).

A number of third party operators provide freight services on Queensland Rail's network. The QCA is satisfied that the market for these above-rail freight services is separate from the market for the below-rail access service. In considering whether this is a single Queensland-wide above-rail freight haulage market, and whether this market is dependent on access to the entire Queensland Rail network, the QCA notes:

- There is minimal cross-system traffic across the network (while some customers traverse more than one rail line to reach their destination, traversing the network more broadly is not required).
- The predominant types of freight hauled on each particular rail system are different, for instance:

[47] The market for the service is discussed in section 11.4.

  - the North Coast Line carries predominantly intermodal freight
  - the Mount Isa Line carries predominantly non-coal minerals and other bulk freight (e.g. acid and fertiliser)
  - the West Moreton system carries predominantly coal.
- A range of customers depend on above-rail haulage services, and the market conditions these customers face vary markedly, depending on the type of freight hauled.
- The infrastructure requirements vary between the various rail systems, meaning that an above-rail operator will often need to configure bespoke rollingstock depending on the particular rail system on which they operate. For example, the Metropolitan system is rated A grade track (20–30 tonne axle loads), the North Coast Line and Mount Isa Line are rated B grade track (20–22 tonne axle loads), whereas the West Moreton system, the Central Western system, the South Western system and parts of the Western system are rated D grade track (15.5–18 tonne axle loads).[48]
- Freight is not hauled on the Tablelands system. Queensland Rail submitted that the condition of the Tablelands system is such that there is little scope to operate freight services by rail.[49]

Given this, the QCA has not identified a single above-rail market (or any other market warranting further analysis of criterion (a)) that is dependent on the use of the service as a whole. Therefore, the QCA is unable to conclude that criterion (a) is satisfied for the Queensland Rail service as a whole.

However, it is apparent from the above that there are a range of markets dependent on access to parts of the service. These are discussed in detail with respect to the part of the service on which they depend. Table 2 provides a brief summary of possible dependent markets that the QCA identified, the parts of the service that the QCA has identified and their corresponding facility. The definitions of each service and facility is in Appendix B.

Table 2 Parts of the service, facilities and possible dependent markets

Possible dependent markets	***Description of the relevant part of the declared service***	***Facility***
The above-rail freight haulage market	North Coast Route service	North Coast Line Metropolitan system (together, the North Coast Route)
The North West Queensland minerals tenements market The above-rail freight haulage market The market for mining inputs in the North West Queensland minerals region	Mount Isa Route service	Mount Isa Line Those parts of the North Coast Line that interconnect the Mount Isa Line and the Port of Townsville (together, the Mount Isa Route)

[48] Queensland Rail, *Brisbane Metropolitan System Information Pack*, October 2016, p. 30, https://www.queenslandrail.com.au/business/acccess/Documents/Brisbane%20Metropolitan%20System%20Information%20Pack%20-%20Issue%203%20-%20October%202016.pdf.

[49] Queensland Rail, sub. 33, attachment A, p. 5.

Possible dependent markets	*Description of the relevant part of the declared service*	*Facility*
The market for coal tenements in the West Moreton region The above-rail freight haulage market The Port of Brisbane coal handling services market	West Moreton Route service	West Moreton system Metropolitan system (together, the West Moreton Route)
The above-rail freight haulage market	Central Western Route service	Central Western system North Coast Line that interconnects the Central Western system and the Metropolitan system and the Port of Mackay Metropolitan system (together, the Central Western Route)
The above-rail freight haulage market	Western Route service	Western system West Moreton system that interconnects the Western system and Metropolitan system Metropolitan system (together, the Western Route)
The above-rail freight haulage market	South Western Route service	South Western system West Moreton system that interconnects the South Western system and Metropolitan system Metropolitan system (together, the South Western Route)
The above-rail passenger market	Tablelands system service	Tablelands system

3.4 Comparing a future with and without declaration

In assessing whether access (or increased access) to the service, on reasonable terms and conditions, as a result of declaration would promote a material increase in competition in at least one dependent market, the QCA has considered the likely future with declaration and the likely future without declaration.

An important consideration in assessing the likely future without declaration is the presence of other access arrangements that may apply, including the deed poll and access framework developed by Queensland Rail.

As Queensland Rail's deed poll and access framework are expressed to apply broadly[50], the QCA has first considered the operation of Queensland Rail's deed poll and access framework (Part B, Chapter 4), and then analysed criterion (a) in detail for each part of the service identified by the QCA (Part B, Chapters 5 to 10).

[50] That is, over the 'services provided using the North Coast Line, Mount Isa Line, West Moreton System and Metropolitan System' (Queensland Rail, sub. 33, p. 5, para. 15).

4 QUEENSLAND RAIL'S DEED POLL AND ACCESS FRAMEWORK

4.1 Introduction

Queensland Rail has developed an access framework to apply in a future without declaration, in the form of an annexure to an executed deed poll.[51] The executed deed poll is dated 11 March 2019.

Queensland Rail said that the executed deed poll is irrevocable, which 'means that a new access framework will be legally binding on Queensland Rail and enforceable by a specified class of third parties in the future without declaration for services provided using the North Coast Line, Mount Isa Line, West Moreton System and Metropolitan System'.[52]

Queensland Rail considered that the access framework will ensure that access will be available on reasonable terms and conditions in the future without declaration, such that declaration will not promote a material increase in competition in any dependent markets.[53] Queensland Rail stated:

> The Access Framework is based on the QCA approved 2016 Access Undertaking that is currently in force and accordingly provides as much regulatory certainty for access seekers and access holders as currently exists and as much regulatory certainty as would exist in the future with declaration.[54]

Queensland Rail's consultant, HoustonKemp, considered that there will be no difference in market outcomes between a future with and without declaration, given the similarity between the access framework and current regulation.[55]

In contrast, the South West Producers and Glencore said that the deed poll and access framework will not constrain Queensland Rail's behaviour.[56] Pacific National did not consider the deed poll and access framework provided as much regulatory certainty for access seekers and access holders as currently exists under declaration.[57]

The QCA has considered the degree to which Queensland Rail's deed poll and access framework affect the extent to which access as a result of declaration would promote a material increase in competition in a dependent market compared to a future without declaration. In doing so, the QCA has assessed the extent to which it would constrain Queensland Rail's ability to exercise market power in the absence of declaration.

4.2 QCA approach to assessing the deed poll and access framework

The QCA's approach, as a matter of principle, to how it has considered the deed poll and access framework is explained in Overview—Chapter 2.

In line with that approach, the QCA has considered:

- whether the deed poll is an appropriate counterfactual in the absence of declaration

[51] Queensland Rail, sub. 33, attachment E, parts 1–3.
[52] Queensland Rail, sub. 33, p. 14, para. 73.
[53] Queensland Rail, sub. 33, p. 44, para. 215.
[54] Queensland Rail, sub. 33, p. 5, para. 16.
[55] Queensland Rail, sub. 33, attachment B, p. 28.
[56] South West Producers, sub. 40, p. 5; Glencore, sub. 41, p. 20.
[57] Pacific National, sub. 37, p. 6.

- how effective the deed poll and access framework is as a constraint on Queensland Rail's ability to exercise market power—including Queensland Rail's ability to expropriate rents (or sunk costs)[58] from access seekers at the time of renegotiating access contracts.[59]

4.3 The deed poll as an appropriate counterfactual

4.3.1 Stakeholder submissions

Queensland Rail submitted that it had executed an 'irrevocable' deed poll.[60] In Queensland Rail's view, the deed poll 'will give rise to a binding and enforceable Access Framework in the future without declaration of services on the North Coast Line, Mount Isa Line, West Moreton System and Metropolitan system'.[61]

> In addition to (and independently of) the constraints described above, to the extent Queensland Rail's services are not declared, Queensland Rail will provide open access to the Mount Isa Line, North Coast Line, West Moreton System and Metropolitan System on substantially the same terms as it currently does. Queensland Rail will provide services, for the purposes of both freight and passenger rail services, in accordance with a binding and enforceable access framework in the future without declaration.[62]

A number of other stakeholders did not consider it appropriate for the QCA to consider the deed poll and access framework in assessing criterion (a).

Glencore, Pacific National and the South West Producers considered that the deed poll and access framework should be rejected as a 'contrived' attempt to circumvent the access criteria.[63]

Pacific National submitted that acceptance of the access framework as the relevant counterfactual 'could potentially set a precedent which allows access providers to construct a counterfactual to declaration in a way that best suits their case, while leaving flexibility to amend the framework in future'.[64] Pacific National submitted that this ability to amend the framework without QCA oversight undermines its relevance as a counterfactual for the analysis of criterion (a).[65]

The South West Producers and Glencore submitted that the deed poll was not legally effective, given that there has been no reliance upon and no acceptance of Queensland Rail's deed poll. The South West Producers expressly rejected the deed poll.[66] Both parties noted the New South

[58] For certain dependent markets (e.g. the above-rail freight haulage market), given the nature of the market, the expropriation may be of the firms' sunk costs rather than of rents. However, the hold-up problem also arises in these markets. Given the varied nature of the dependent markets analysed in this recommendation, the term 'rents' is used generally in this analysis of the access framework and deed poll.

[59] If an access seeker undertakes considerable sunk investment to enter (or expand in) a dependent market, the access seeker's willingness to pay will increase—affecting its negotiation power—at the time of contract renewal. This gives Queensland Rail the ability to expropriate the value of their customers' sunk investments at the time of contract renewal.

[60] Queensland Rail, sub. 33, p. 14, paras 72–73; sub. 33, pp. 39–40, paras 193–198.

[61] Queensland Rail, sub. 33, p. 40, para. 199.

[62] Queensland Rail, sub. 33, p. 39, para. 193.

[63] Glencore, sub. 41, pp. 23–24; Pacific National, sub. 37, p. 2; South West Producers, sub. 40, p. 38.

[64] Pacific National, sub. 37, p. 2.

[65] Pacific National, sub. 37, p. 2. Pacific National made similar submissions in relation to the DBCT access framework.

[66] South West Producers, sub. 40, p. 37.

Wales Court of Appeal decision in *Burns Philp Hardware Ltd v Howard Chia Pty Ltd*, that to be effective, a deed poll must first be accepted or relied upon by the intended beneficiaries.[67]

4.3.2 QCA analysis

The QCA considers that the extent to which, in a future without declaration, the operation of the deed poll and access framework affects competition in dependent markets, compared to a future where there is access or increased access on reasonable terms as a result of declaration, is a relevant consideration.

The QCA has assessed the deed poll and access framework on its terms. In this regard, the relevant issue is whether the deed poll and access framework collectively represent a suite of arrangements that will, in the absence of declaration, effectively constrain Queensland Rail's ability to exercise market power.

Are access arrangements under the deed poll binding and irrevocable?

There are divergent views on whether the deed poll is binding on Queensland Rail and irrevocable. The QCA has carefully considered the submissions received and the issues raised on this question.

The QCA considers that Queensland Rail intends to be legally bound by the deed poll and access framework such that it considers it to be irrevocable, albeit that it will not impose access obligations unless and until the service ceases to be declared and a relevant service is not declared. By its terms, the access framework is effective from 9 September 2020 for five years, unless a relevantly defined service is declared (in which case it will end on that date).[68] This intention is evident from the terms of Queensland Rail's submissions during the QCA's consultation process, together with the terms of the deed poll and access framework.

The QCA has not assessed the deed poll and access framework on the basis that it is 'contrived'. While the deed poll has been produced in the context of the declaration review, having been executed, it should be assessed on its terms.

A party's intention to be legally bound by a deed can either be absolute or subject to fulfilment of a condition. The intention in question is the intention of the person said to be bound, rather than a mutual intention of the person bound and the putative beneficiaries of the deed. Where the intention is conditional, the deed is immediately irrevocable but becomes binding according to its terms once the condition is satisfied (although nothing further need be done by the party who delivered it).[69]

Ultimately, the proposition raised by the South West Producers and Glencore—that the deed poll is not legally effective without acceptance or reliance—raises a question of legal principle in respect of which it is unnecessary for the QCA to form a concluded view. The deed poll, by its terms, will apply to access seekers only where those parties complete the required forms specified in the access framework. Where this is done, the factual foundation for the proposition that there is no acceptance or delivery will fall away.

The argument advanced by the South West Producers and Glencore appears to contemplate the possibility that, until there is acceptance or reliance, Queensland Rail can, in effect, change its

[67] Glencore, sub. 41, p. 20; South West Producers, sub. 40, pp. 36–37.
[68] Queensland Rail, sub. 33, attachment E, part 2 (access framework), cl. 1.1 and the definitions in cl. 7.1.
[69] *Beesly v Hallwood Estates Ltd* [1961] 1 Ch 105; *Alan Estates Ltd v WG Stores* [1982] 1 Ch 511; *Monarch Petroleum NL v Citco Australia Petroleum Ltd* [1986] WAR 310 at 357.

mind and repudiate the obligations it has taken upon itself through the deed poll. Regardless of whether the law permits this, Queensland Rail has submitted that the deed poll is irrevocable. Were Queensland Rail simply to reverse this position, after the declaration of the Queensland Rail service has expired, it would face the prospect of a fresh application for declaration, which would be founded, in part at least, on the ability of the service provider to repudiate commitments pursuant to a deed to prospective users apparently entered into in good faith. The QCA considers that, in reality, the prospect of Queensland Rail repudiating the deed poll is remote.

The QCA considers the deed poll is a part of the appropriate counterfactual in circumstances where prospective access seekers seek access or increased access in a future where the relevant service is not declared.

Non-compliance and disclaimer

Even though the deed poll is part of the counterfactual, there may be circumstances where, in the absence of declaration, the deed poll and access framework would not determine the basis upon which access or increased access to the service would be provided.

Under the terms of the access framework, if an access seeker does not agree to 'unconditionally and irrevocably' comply with the framework and deed poll, Queensland Rail may refuse to accept an access application (cl. 2.1.1(c)). It appears that in these circumstances, Queensland Rail would have broad discretion to refuse to accept the access application. Should an application be refused, in the sole discretion of Queensland Rail, the access seeker would have no right to request access and Queensland Rail would have no obligation to negotiate.

Alternatively, the QCA notes that the beneficiary of a deed poll may unilaterally disclaim the benefits under the deed poll.[70] If this occurred, the rights and obligations would cease to have effect between the maker of the deed and the beneficiary.

Even if Queensland Rail was prepared to negotiate with an access seeker that had disclaimed the benefits of the deed poll, or had not agreed to comply with its terms, Queensland Rail would be under no obligation to give access in accordance with the access framework. Access would, in effect, be offered by Queensland Rail on a voluntary basis. The access seeker would have no rights under the deed poll.

A prospective user who had disclaimed the benefits of the deed poll or refused to comply with the access framework would still have the option of seeking declaration of the relevant service in order to seek access on terms it deemed acceptable. The QCA notes that, in the event of a declaration application, the QCA would be required to consider the environment with and without declaration to assess the effect of declaration on competition in dependent markets. In these circumstances, where the application was made during the term of the deed poll and access framework, the deed poll and access framework would be part of the counterfactual. The QCA does not consider that, in any such assessment, it would be appropriate to disregard the available terms (and their effect on competition in dependent markets) on the basis that one or more access seekers had chosen to reject them.

In summary, the QCA considers that in a future without declaration, the deed poll is an appropriate part of the counterfactual. On this basis, the QCA has continued its assessment of

[70] *FCT v Cornell* (1946) 73 CLR 394; Seddon, N, *Seddon on Deeds*, 1st edn, Federation Press, Alexandria, NSW, para. 7.9.

the effectiveness of the deed poll and access framework as a constraint on Queensland Rail's conduct below.

Application of the access framework

Queensland Rail submitted that the access framework ensures that access to the North Coast Line, Mount Isa Line, West Moreton system and Metropolitan system will be available on reasonable terms.

Relevantly, there are a range of markets, such as rail freight haulage markets, that are dependent on access to parts of the service that are not subject to the same access arrangements outlined in the access framework and deed poll. This is due to rail freight haulage operators transporting goods across routes that span multiple lines, not all of which are covered by the deed poll and access framework.

In any case, the QCA has assessed the effectiveness of the deed poll and access framework as a constraint on Queensland Rail's conduct for those services which are subject to the access framework and deed poll.

4.4 Effectiveness of the deed poll and access framework as a constraint on conduct

Criterion (a) requires the QCA to determine if access (or increased access) to the service, on reasonable terms and conditions, as a result of declaration would promote a material increase in competition in a dependent market. This involves comparing a future with declaration to a future without declaration, including a scenario in which the deed poll has been executed and is operative. This does not necessarily entail a clause by clause analysis of the deed poll and access framework, rather it is a question of whether there are any particular features that are relevant in comparing competitive conditions in a dependent market in a future with and without declaration.

In assessing criterion (a), the QCA considers that in a future without declaration, Queensland Rail has the incentive and ability to exercise market power in order to maximise profits in a way that may adversely affect competition in dependent markets.[71] In considering a future with and without declaration, the QCA has assessed the extent to which the deed poll and access framework would constrain Queensland Rail's ability to exercise market power in a way that could potentially cause competitive harm in dependent markets.

The QCA has identified a number of aspects of the deed poll and access framework's operation that are particularly relevant to the assessment of its effectiveness as a constraint on Queensland Rail's ability and incentive to exercise market power. Each of those matters is considered in turn, namely:

- boundaries around price negotiation
- access negotiations
- compliance and enforcement of access arrangements
- the ability to amend the access framework.

[71] The QCA's analysis of criterion (a) is in Part B, Chapters 5 to 10 below.

4.4.1 Boundaries around price negotiation

The access framework establishes access price bounds to guide negotiations—setting a revenue ceiling to limit Queensland Rail from earning revenues that exceed the efficient economic cost it incurs in providing the service. Queensland Rail stated:

> Queensland Rail will thus be constrained in the future without declaration from imposing excessive access charges, even if it otherwise had the ability and incentive to do so (which it does not).[72]

The QCA has considered the extent to which the pricing arrangements in the access framework are an effective constraint on Queensland Rail's ability to exercise market power in setting access charges.

The pricing arrangements that Queensland Rail has implemented in its access framework provide it with very broad discretion to set prices between a floor and a ceiling, where the latter reflects a standalone price of providing the service.[73] The QCA considers that the proposed revenue ceiling limit will not sufficiently constrain the extent to which Queensland Rail is able to expropriate rents from access seekers, such that it does not have a material impact on competition in dependent markets.

Where the revenue currently obtained from negotiated access charges is significantly below the ceiling limits[74], there is a high risk that access charges set at the ceiling would exceed what many participants in the various dependent markets that are serviced by Queensland Rail would be willing and/or able to pay. At the time of renewing an access agreement, that is, after the access seeker has undertaken sunk expenditure, the access seeker's willingness to pay for access can be expected to increase and Queensland Rail may be able to increase access charges as a result.

Moreover, while there are limitations on access charge differentiation, Queensland Rail has not sought to constrain the extent to which it is able to vary access charges for a user relative to the user's existing charges, at the time of contract renewal.[75] In this regard, the boundaries around price negotiation in the access framework are not an effective constraint on Queensland Rail's ability to expropriate rents from access seekers at the time of renegotiating access contracts.[76]

The QCA's concern is not merely that Queensland Rail may have an ability to expropriate rents from users at the time of contract renewal, but that an access seeker, alerted to this risk, may decide not to contract with Queensland Rail at all. Put another way, the access framework, by creating a risk of hold-up for access seekers at the time of contract renewal, could deter utilisation of Queensland Rail's services and hinder competition in dependent markets.

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[72] Queensland Rail, sub. 33, p. 40, para. 197.

[73] Queensland Rail, sub. 33, attachment E, part 2 (access framework), cl. 3.2.

[74] Queensland Rail, sub. 33, p. 52, para. 255.3.

[75] Limits around pricing to constrain the extent to which Queensland Rail is able to vary access charges from one contract to a user's next contract at the time of contract renewal are not included in the access framework. The standard access agreement outlines that any rights that the access holder may have in relation to the renewal of this agreement will be as expressly provided in the access framework (see Queensland Rail, sub. 33, attachment E, part 3 (standard access agreement), cl. 1.2).

[76] In a future with declaration, there is scope to constrain Queensland Rail's ability to expropriate rents from access seekers at the time of renegotiating access contracts. For instance, an approved access undertaking may require renewal rights or set a reference tariff (as provided by s. 101(4) of the QCA Act) to mitigate the risk of hold-up for access seekers.

It follows that the QCA does not consider that the ceiling limit, by itself, will constrain Queensland Rail's ability to exercise market power in future contracting periods, such that this could not have a material impact on competition in dependent markets.

Additionally, the South West Producers submitted that the predictability of the ceiling would be severely impacted, such that the negotiate–arbitrate regime would not serve its purpose of facilitating commercial resolution.[77]

The ceiling is calculated by Queensland Rail using the depreciated optimised replacement cost (DORC) methodology.[78] This requirement is not prescribed by the QCA Act, nor is it in Queensland Rail's approved 2016 access undertaking. The QCA notes that adopting a DORC valuation approach for setting the ceiling will involve matters of judgment, embodying multiple subjective assumptions.

Determining a regulatory asset base (RAB) using a DORC methodology has proven to be highly contentious in the context of gas pipeline regulation, and has been the subject of lengthy appeals. The QCA notes that the outcome of a RAB revaluation using a DORC methodology could result in widely different estimates depending on the approach and assumptions adopted by Queensland Rail, and could lead to a material increase or decrease in access charges.[79] Queensland Rail is to calculate the DORC; it is unclear whether access seekers will be provided with sufficient information to understand or determine the likely grounds to dispute the valuation undertaken. This fails to provide access seekers with certainty in relation to the bounds for future price negotiations.

4.4.2 Access negotiations

The access framework relies on parties to negotiate access rights, with recourse to arbitration if parties cannot reach an agreement on terms. Under the access framework, Queensland Rail is required to negotiate in good faith; not to unfairly differentiate between access seekers; and to consistently apply the access framework for all requests and negotiations for access.[80]

Queensland Rail must provide information that is reasonably required by the access seeker for the purpose of negotiating with Queensland Rail, as well as specific categories of information, including, if requested by the access seeker, the price at which Queensland Rail provides access.[81] Queensland Rail must also provide the access charge for the requested access rights, including the basis for the calculations and details of how Part 3 of the access framework has been applied in those calculations.[82] Disputes under the access framework are to be resolved by an independent arbitrator (unless otherwise agreed, or resolved earlier in the process), with arbitration conducted in accordance with The Resolution Institute Arbitration Rules.[83] The access framework provides guidance to the arbitrator on how to determine an access dispute. This guidance is likely to inform negotiations.

[77] South West Producers, sub. 40, pp. 34–35.
[78] See Queensland Rail, sub. 33, attachment E, part 2 (access framework), cl. 3.2.3(c).
[79] For example, the QCA's decision on Queensland Rail's 2015 draft access undertaking valued Queensland Rail's assets on the West Moreton network having regard to the expected useful lives of assets. Queensland Rail's access framework does not permit such an approach.
[80] Queensland Rail, sub. 33, attachment E, part 2 (access framework), cl. 1.3.
[81] Queensland Rail, sub. 33, attachment E, part 2 (access framework), cl. 2.7.2.
[82] Queensland Rail, sub. 33, attachment E, part 2 (access framework), cl. 2.7.2(a)(vi).
[83] Queensland Rail, sub. 33, attachment E, part 2 (access framework), cl. 6.1.5(b).

While the access framework is largely based on the 2016 access undertaking, there are differences that are likely to have implications for access negotiations in a future without declaration.

In particular, it is unclear whether access seekers would have visibility of information on Queensland Rail's costs and asset values, which are relevant inputs in determining the price for access. As a result, access seekers may be at a disadvantage in negotiating access, as their ability to form a view about expected pricing outcomes under the access framework may be limited.

Additionally, the QCA notes that:

- Queensland Rail services various dependent markets, with the willingness to pay of users for the service varying considerably, reflecting the different characteristics of these various markets
- Queensland Rail bilaterally negotiates with individual customers, with no transparency of access terms between users, including in relation to pricing terms.

Queensland Rail submitted that the access framework addresses potential information asymmetries as it requires extensive information be provided to access seekers, providing an effective basis for negotiation.[84] While the access framework contains some obligations requiring information be provided to access seekers (e.g. cls. 2.7.2(a)(i) and (vi)), there are no express requirements for the provision of certain key information (such as cost information) to inform access seekers at the time of negotiating access.

In contrast, in a future with declaration, access seekers would benefit from the obligations in the QCA Act with respect to information provision. Such obligations include requirements for the access provider to give an access seeker information about the costs of providing the service, including the capital, operational and maintenance costs.[85] Moreover, the QCA Act provides for an access provider or access seeker to ask the QCA for advice or directions in relation to these matters.[86]

Where a dispute is referred to independent arbitration, the access framework prescribes certain matters to which the arbitrator must have regard when making a determination (see cl. 6.1.5(f)).[87] These include the pricing methodology contained in the access framework.

As outlined above, the QCA is concerned that the proposed pricing rules in Queensland Rail's access framework will not sufficiently constrain the extent to which it is able to expropriate rents from access seekers, particularly at the time of contract renewal. As such, prospective access seekers may view the dispute resolution mechanism as deficient.[88]

The QCA does not consider the overarching obligations on Queensland Rail to negotiate in the access framework will be an effective constraint on Queensland Rail exercising market power when negotiating access charges. In this respect, in a future without declaration, access seekers will be in a less favourable negotiating position with Queensland Rail at the time of renegotiating access charges, after having committed to entering the market and incurring

[84] Queensland Rail, sub. 33, p. 40, para. 197.
[85] QCA Act, ss. 101(2), (4).
[86] QCA Act, s. 101(5).
[87] Queensland Rail, sub. 33, p. 43, para. 205.
[88] In a future with declaration, it is open for the QCA to approve an access undertaking that contains terms and conditions of access that constrain Queensland Rail's ability to exercise market power at renewal time. Relevantly, any arbitration undertaken by the QCA cannot be inconsistent with an approved access undertaking (QCA Act, s. 119(1)(a)).

considerable sunk costs. The dispute resolution mechanism does not curtail this risk in circumstances where an arbitrator is required to take into account the pricing methodology in the access framework.

4.4.3 Compliance and enforcement of access arrangements

Effective compliance and enforcement measures provide stakeholders with greater confidence in the integrity of an access regime, and therefore greater certainty underpinning their investment decision-making.

In comparing the 2016 access undertaking and the executed access framework, HoustonKemp considered that Queensland Rail has a strong incentive for material compliance under both regimes given they are ultimately enforceable by the Queensland courts with comparable remedies.[89]

The QCA considers that enforcement by a court or an arbitrator provides a mechanism for holding Queensland Rail accountable for compliance under the deed poll and access framework. However, future access seekers and access holders will likely face a greater degree of uncertainty associated with compliance and enforcement than would be the case with access under declaration.

In particular, it would be up to covenantees of the deed poll to bring proceedings before the court, as there is no independent body with equivalent investigative powers of the QCA to monitor and enforce compliance. No person has equivalent powers to conduct investigations, require information about compliance and take action, as occurs where a service is declared.

Additionally, the QCA Act specifies enforcement mechanisms to resolve access disputes and enforce access determinations; enforce compliance with access undertakings; and prohibit the hindering of access and unfair differentiation.[90] Under declaration, the QCA (or another person) may apply to the court for an order to enforce an access undertaking.[91]

As a result, compared to access with declaration, covenantees may face additional costs associated with enforcing the deed poll and access framework.

The South West Producers considered that in many cases the time delay and cost involved in bringing proceedings will mean that users may be better off accepting breaches of the deed poll and access framework.[92]

Reliance on legal proceedings requires an access seeker or user who sought to enforce the deed poll, to undertake expensive and potentially protracted court proceedings, with an uncertain outcome. Given this, there may be a disincentive for affected parties to pursue enforcement for a breach.

4.4.4 Ability to amend access arrangements

Queensland Rail is able to amend the access framework, but only in accordance with cl. 6 of the deed poll. This provides for Queensland Rail to make amendments to the access framework that are:

[89] Queensland Rail, sub. 33, attachment B, pp. 32–33.
[90] QCA Act, ss. 112, 117, 123, 124, 152, 153, 158A.
[91] QCA Act, ss. 10(ha), 158A.
[92] South West Producers, sub. 40, p. 35.

- not inconsistent with the objective of the access framework—which is defined as the object of Part 5 of the QCA Act
- appropriate having regard to specified mandatory considerations—which are based on the matters set out in ss. 138(2) and 168A of the QCA Act.

The process for making amendments to the access framework involves a consultation process with access holders and access seekers who have signed an access application or renewal access application. Covenantees may challenge the validity of such amendments by commencing legal proceedings, which is the only avenue for recourse in relation to an access framework amendment dispute.[93] Queensland Rail said:

> The Queensland courts are the appropriate forum for resolving disputes regarding any amendments to the Access Framework. The courts are well versed in overarching objective provisions and having regard to mandatory considerations and are equipped to efficiently determine a dispute arising under the Deed Poll, including in relation to amendments to the Access Framework.[94]

A number of stakeholders observed that there is uncertainty as to whether the terms of the access framework will remain the same.[95]

The QCA considers that the ability of Queensland Rail to amend price and non-price terms of access within the access framework creates a high degree of uncertainty for access seekers, as the basis for negotiating the terms and conditions of access may change over time. As the access framework sets out the negotiation framework and terms and conditions of access, its terms will be important to future access seekers considering entering into the relevant dependent markets.

The ability of Queensland Rail to amend the terms of access within the access framework will be of particular importance to access seekers, given that they will be required to renegotiate the terms of access at the time contractual arrangements expire—and do not have recourse to contractual remedies to constrain Queensland Rail from expropriating rents at the time of contract renewal. For instance, Queensland Rail has the ability to amend key price and non-price terms that may impact a user's ability to derive value from their sunk investments.

The following factors highlight the risk for prospective access seekers:

- Queensland Rail has considerable discretion under the deed poll in determining whether a change to the access framework is appropriate. While Queensland Rail must consult on proposed amendments and 'review and consider' any comments received, it is not bound to implement stakeholder comments.
- Although the criteria (cl. 6 of the deed poll) for amending the access framework adopts similar language to that of the QCA Act, a critical difference is that, with declaration, it is the QCA—as the independent regulator discharging its statutory functions in accordance with the QCA Act—that weighs the various considerations and determines what is appropriate. Under the deed poll it is Queensland Rail that is the decision-maker regarding changes to the access framework. It is also an interested party that stands to benefit from amendments in its favour and therefore has an incentive and ability to make changes, within the scope permitted by the deed poll, that favour its commercial interests.

[93] Queensland Rail, sub. 33, p. 40, para. 201; sub. 33, attachment E, part 1 (deed poll), cls. 6.4.3, 6.4.5.
[94] Queensland Rail, sub. 33, p. 40, para. 202.
[95] Pacific National, sub. 37, p. 2; Aurizon Coal, sub. 39, p. 2; Glencore, sub. 41, pp. 21–22; South West Producers, sub. 40, pp. 32–34.

While covenantees have the option of referring a matter to court if they consider an amendment has been implemented in breach of the deed poll, there are limitations on the ability of a covenantee to successfully challenge an amendment to the access framework through the courts. The relevant terms of the deed poll—that an amendment is permitted so long as it is not inconsistent with the framework objective and is appropriate having regard to mandatory considerations (cls. 6.2 and 6.3)—give Queensland Rail a broad discretion, making it difficult to establish that a proposed amendment is invalid. Additionally, there may be circumstances where a potential future user is not a beneficiary (that is, not a 'covenantee' within the meaning of the deed poll) and has no ability to challenge proposed changes to the access framework.[96]

- Queensland Rail faces little cost and risk (and therefore disincentive) of pursuing amendments in its favour. In contrast, if a covenantee believed a proposed amendment to be inappropriate or invalid, it would have to bear the costs and risks of undertaking legal action to prevent it. Glencore and South West Producers submitted that Queensland Rail could continually seek to make changes to the access framework—requiring users to go through expensive and protracted legal processes to prevent the amendments.[97]

Importantly, Queensland Rail has not sought to include terms in the deed poll (which would be subject to a covenant not to revoke or amend) that 'lock in' the basis for negotiating access, including access charges. This is in contrast to the deed poll executed by DBCT Management, which irrevocably constrained its ability to exercise market power on a key aspect of access. Queensland Rail's ability to modify those terms, and potential limitations on the ability to successfully challenge proposed changes to which an access seeker objects, significantly weakens the effect of the access framework on competition in dependent markets. This difficulty is heightened where an access seeker, negotiating an access agreement under the framework, is faced with the possibility that principles for setting access charges may be modified before it comes to negotiate a renewal of its access agreement (i.e. after its investment is sunk). This risk may serve as a material disincentive to seek access under the framework in the first place.

As outlined above, the QCA is concerned that the boundaries around pricing negotiation applied by Queensland Rail in the access framework provide for the risk of hold-up for access seekers, which will adversely affect competition in dependent markets. The risk of hold-up for access seekers is exacerbated by Queensland Rail's ability to modify the boundaries around pricing negotiation (which is relatively unconstrained), as it increases Queensland Rail's ability to hold up a user seeking to negotiate terms for a new access agreement once a user has incurred sunk costs involved with entering and/or expanding in the market.

4.5 Conclusion

The QCA considers the deed poll is a part of the appropriate counterfactual in circumstances where prospective access seekers seek access, or increased access, to the service in a future without declaration.

In a future without declaration, and in circumstances where the deed poll is operative, the QCA considers that the access framework is not an effective constraint on Queensland Rail's ability to exercise market power, chiefly because the deed poll and access framework do not constrain

[96] Queensland Rail, sub. 33, attachment E, part 1 (deed poll), cls. 2 and 6.
[97] Glencore, sub. 41, pp. 21–22; South West Producers, sub. 40, pp. 32–34.

Queensland Rail's ability to expropriate rents from access seekers at the time of renegotiating access contracts.

In this regard, the QCA notes:

- The pricing arrangements in the access framework do not constrain Queensland Rail's ability to exercise market power in future contracting periods, such that it would not have a material impact on competition in dependent markets.
- The overarching obligations on Queensland Rail to negotiate access are not effective constraints on Queensland Rail exercising market power when negotiating access charges.
- Future access seekers and access holders will likely face a degree of uncertainty associated with compliance and enforcement, more so than would be the case in a future with declaration.
- Queensland Rail's ability to modify the access framework exacerbates the risk of hold-up for users at the time of contract renewal.

The QCA considers that the access framework is not an effective constraint on Queensland Rail's ability to expropriate rents from access seekers at the time of renegotiating access contracts. The QCA considers that, in a future without declaration, the risk of hold-up will adversely affect the environment for competition in relevant dependent markets, as discussed below (Part B, Chapters 5 to 10).

5 CRITERION (A)—THE NORTH COAST ROUTE SERVICE

5.1 Part of the existing declared service and the dependent markets

The QCA has assessed the following part of the existing declared service and the following dependent markets:

Table 3 The North Coast Route service and the dependent market

Dependent market	*Part of the existing declared service upon which the market is dependent*	*Facility for the relevant part of the service*
The above-rail freight haulage market	North Coast Route service, that is use of the North Coast Route	North Coast Line Metropolitan system (together, the North Coast Route)

5.2 Geographical description of the North Coast Route

The North Coast Line extends south from Cairns along Queensland's eastern coastline to Nambour (approximately 100 km north of Brisbane Central station). From Nambour, the North Coast Line joins the Metropolitan system, which consists of a network of various lines and branch lines across the Brisbane metropolitan area.[98] Users of the North Coast Line traverse the Metropolitan system to access the crucial supply-chain infrastructure based in Brisbane, such as the import/export terminals at the Port of Brisbane, and the intermodal terminals at Acacia Ridge and Tennyson.

The Metropolitan system joins the interstate rail track (managed by the Australian Rail Track Corporation) at the Acacia Ridge terminal. The rail track changes gauge at Acacia Ridge—Queensland Rail's network is narrow gauge (with the exception of a dual gauge route from Acacia Ridge north to the Port of Brisbane), whereas the New South Wales rail network, including the track from Acacia Ridge south to the Queensland–NSW border, is standard gauge.[99]

5.3 Dependent markets

The QCA considers that a relevant dependent market of the North Coast Route service is the above-rail freight haulage market on the North Coast Route—which is the market for the transportation of freight by rail on the North Coast Route. In this market, beneficial freight owners (or freight forwarders) contract with operators of rollingstock to haul freight via rail from an origin to a destination point along the North Coast Route.

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[98] Queensland Rail, *North Coast Line System South Information Pack*, October 2016, p. 6, https://www.queenslandrail.com.au/business/acccess/Documents/North%20Coast%20Line%20South%20System%20Information%20Pack%20-%20Issue%203%20-%20October%202016.pdf; Queensland Rail, *North Coast Line System North Information Pack*, October 2016, p. 6, https://www.queenslandrail.com.au/business/acccess/Documents/North%20Coast%20Line%20North%20System%20Information%20Pack%20-%20Issue%203%20-%20October%202016.pdf.

[99] ACCC, *Pacific National/Linfox—Proposed acquisitions of intermodal assets from Aurizon*, Statement of Issues, March 2018, p. 19, paras 109–13, https://www.accc.gov.au/system/files/public-registers/documents/MER18%2B2552.pdf.

Pacific National noted in its submission in response to the QCA's draft recommendation that the above-rail haulage market was a relevant dependent market, stating:

> The stable market environment created by declaration promotes efficient investment in the above-rail haulage market and promotes investment in below-rail infrastructure.[100]

Queensland Rail did not dispute the identification of the above-rail haulage market as a dependent market, and stated:

> While there may be scope to debate the way in which the markets dependent on these services [the North Coast Line, Mount Isa Line, West Moreton system and Metropolitan system services] are defined in this review, the precise market definitions do not change the competition analysis of the likely future with or without declaration in this instance as Queensland Rail will continue to provide access on reasonable terms and conditions in the future without declaration.[101]

Queensland Rail noted the following, with respect to the distinction between above-rail and below-rail services:

> The provision of track services and the running of freight trains can be provided separately and occur in functionally distinct markets. Currently, Aurizon and Pacific National provide freight services on Queensland Rail's systems. Queensland Rail provides below rail services on its systems but does not operate freight trains.[102]

The QCA notes that other dependent markets include the downstream end product markets for the goods hauled on the North Coast Route; however, these markets are varied, given the diverse range of freight carried on the North Coast Route. In addition, Pacific National identified other dependent markets, such as the market for wagon and locomotive maintenance services, but it did not discuss these markets in detail.[103] The QCA has not examined these markets in detail, as stakeholders did not provide information on these markets and only limited information on them is publicly available.

Notwithstanding these other possible dependent markets, the QCA considers that one major relevant dependent market of the North Coast Route service is the above-rail freight haulage market.

5.4 Above-rail freight haulage market on the North Coast Route

5.4.1 The market

The market for above-rail freight haulage in this context is the market in which beneficial freight owners (or freight forwarders) contract with operators of rollingstock (locomotives and wagons) to haul freight via rail from an origin to a destination point along the North Coast Route (illustrated in Figure 2).

[100] Pacific National, sub. 37, p. 4.
[101] Queensland Rail, sub. 33, p. 20, para. 107.
[102] Queensland Rail, sub. 33, p. 21, para. 113.
[103] Pacific National, sub. 37, p. 5.

Figure 2 Above-rail freight haulage market on the North Coast Route

The suppliers in the above-rail freight haulage market are the operators of rollingstock. The QCA understands that Pacific National and Linfox (formerly Aurizon Operations) currently provide above-rail haulage services on the North Coast Route.[104]

The customers in the above-rail haulage market include beneficial freight owners and freight forwarders. Freight forwarders offer a 'door-to-door' origin to destination service for freight owners, and typically contract above-rail haulage services on a wholesale level (and then package it with a pick-up and delivery service). Alternatively, beneficial freight owners may contract directly with above-rail haulage operators for rail haulage services.[105]

The geographic dimensions of the above-rail market on the North Coast Route are bounded by the geographic dimensions of the rail systems—Brisbane in the south and Cairns in the north, along Queensland's eastern coastline, including the regional cities along the route (e.g. Bundaberg, Gladstone, Rockhampton, Mackay and Townsville).

5.4.2 The relationship between the market for the service and the dependent market

The market for the North Coast Route service is the market for the below-rail service on these rail systems.[106] In this market, Queensland Rail is the supplier of below-rail services and Pacific National and Linfox are the customers.

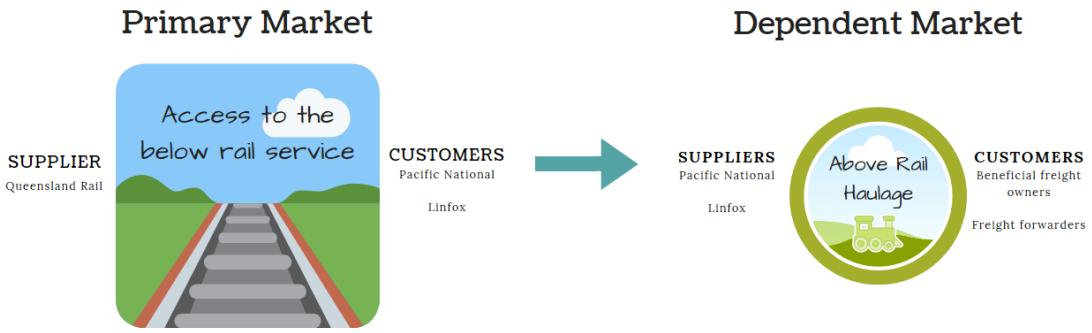
A dependent market for the North Coast Route service is the above-rail freight haulage market on this route. In the above-rail freight haulage market, Pacific National and Linfox are the suppliers, and beneficial freight owners and freight forwarders are the customers. Figure 3 illustrates the relationship between the market for the below-rail service and the dependent above-rail freight haulage market.

[104] Pacific National and Linfox provided details of their operations in their submissions—Pacific National, sub. 9, pp. 2–3; Linfox, sub. 50, p. 1.

[105] See ACCC, *Pacific National/Linfox–Proposed acquisitions of intermodal assets from Aurizon*, Statement of Issues, March 2018, p. 6, para. 35.

[106] Specifically, this is the market for the use of rail transport infrastructure for providing transportation by rail. A detailed discussion of the market for the service is in Part B, Chapter 11.

Figure 3 Relationship between the market for the service and the dependent above-rail haulage market



5.4.3 The nature of traffic on the North Coast Route

The main types of traffic carried by above-rail operators on the North Coast Route are:

- containerised (intermodal) freight (86% of total gtk carried on the line in 2017–18[107])
- long distance passenger services (7% of total gtk carried)
- agricultural products (bulk sugar, livestock and grain) (6% of total gtk carried)
- other products (1% of total gtk carried).[108]

The North Coast Route primarily carries containerised intermodal freight. The term 'intermodal' is used to describe typically non-bulk or general freight in containerised, palletised and/or parcel configurations (e.g. retail products, manufactured goods, and industrial supplies). Intermodal and 'non-bulk' freight is distinguished from 'bulk' freight, which consists of loose homogenous commodities typically transported in large volumes, such as sugar, grain, acid, fertiliser, coal and minerals.

The range of products transported on intermodal above-rail haulage services on the North Coast Route include:

- retail goods: groceries, alcohol, white goods
- fruit and vegetables for wholesale or export markets
- import and export goods: electrical, home goods, processed meat and agricultural products
- building and construction products
- industrial products in packaged and palletised form.[109]

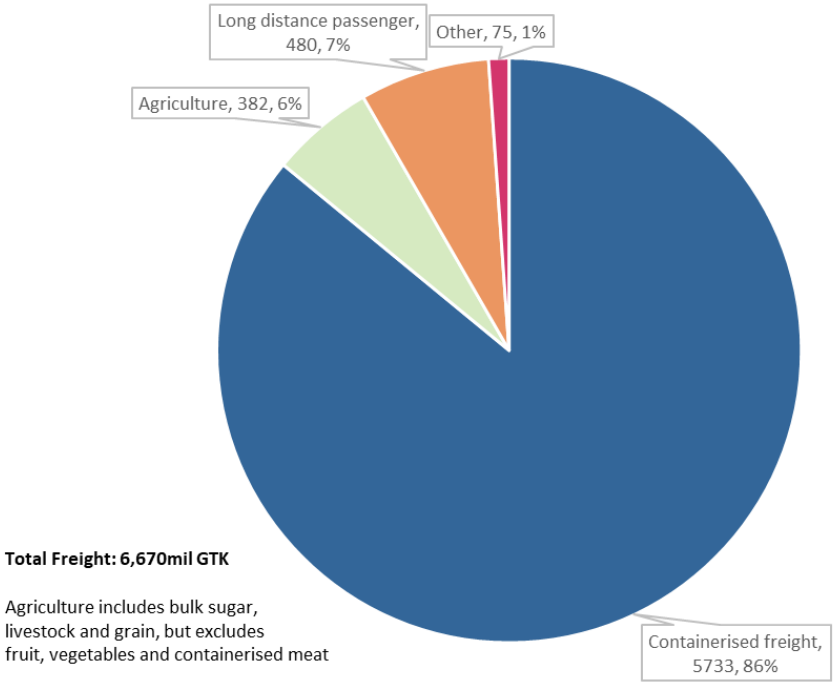
The breakdown of the types of freight carried by rail operators on the North Coast Line is shown in Figure 4.

[107] Gross tonne kilometres (gtk) is a measure of the level of operating activity on a particular rail system. It is the product of the total gross weight of the train (i.e. including the locomotives and wagons used, as well as the goods and passengers carried) and the distance (in kilometres) travelled by the train.

[108] Queensland Rail, *2017–18 Annual Performance Report, Queensland Rail Access Undertaking 1*, December 2018, p. 11, https://www.queenslandrail.com.au/business/acccess/Compliance%20and%20reporting/2017-18%20QCA%20Annual%20Performance%20Report.pdf.

[109] Queensland Rail, sub. 33, attachment C, p. 69.

Figure 4 North Coast Line freight volumes by commodity (and passengers), 2017–18 (million gtk)



Source: Adapted from Queensland Rail, 2017–18 Annual Performance Report, Queensland Rail Access Undertaking 1, December 2018, p. 11.

Intermodal general freight trains operate from the Brisbane region, and the major service destinations are Rockhampton, Mackay, Townsville and Cairns. Some of the services stop en route to drop and pick up freight. Intermodal general freight trains carry containerised freight servicing the domestic market. The intermodal freight services operate throughout the year with peak periods occurring before Easter and Christmas.[110]

Intermodal shipping freight trains operate to and from Fisherman Islands (Port of Brisbane) in Brisbane and have service destinations of Rockhampton and Mackay. Shipping freight trains carry containerised freight servicing the import/export market for the Port of Brisbane. The shipping freight services operate throughout the year.[111]

In addition to intermodal freight, bulk agricultural freight services also operate on the North Coast Line. Bulk sugar freight services operate from Proserpine and Burdekin area mills to either Mackay or Townsville sugar terminals.[112] Bulk grain freight services operate from the south-western and central-western Queensland regions to the Fisherman Islands, Mackay and Gladstone export terminals. Bulk agricultural services are seasonal.[113]

Bulk mining freight trains also traverse the North Coast Line at various locations in order to reach export ports. These include minerals services in transit from the Mount Isa Line and coal services in transit from Aurizon Network's Central Queensland Coal Network. Bulk mining freight services operate throughout the year.[114]

[110] Queensland Rail, sub. 33, attachment C, p. 44.
[111] Queensland Rail, sub. 33, attachment C, p. 44.
[112] Queensland Rail, sub. 33, attachment C, p. 44.
[113] GrainCorp, sub. 52, p. 4.
[114] Queensland Rail, sub. 33, attachment C, p. 44.

5.4.4 Entry into the market

In the current market for above-rail freight haulage services on the North Coast Route, Pacific National and Linfox are the above-rail operators.

A potential new entrant into the above-rail freight haulage market on the North Coast Route is likely to incur substantial sunk costs as part of entering the market. For example, Pacific National noted in its submission:

> PN has invested well over $1 billion in above rail infrastructure in Queensland. Much of this infrastructure has very long lives and [is] only recently deployed … Rail investment is largely sunk, most of the infrastructure could not be deployed elsewhere if PN were to cease operation in Queensland. This is primarily because rollingstock is configured for electric infrastructure (which is unique to Queensland) and a narrow gauge track which is not widely deployed in Australia.[115]

In this context, a potential entrant's decision may depend on several factors, including:

- anticipated revenue—for example, from sufficient contracts (or sufficient volumes) with major customers who are willing to commit to haulage contracts to underwrite and sustain that entry[116]
- anticipated below-rail costs—the price charged by Queensland Rail for the use of its below-rail network
- anticipated non-price access terms—for example, the scheduling of train paths by Queensland Rail in a way that allows for delivery times and frequency of service to meet customer needs, particularly given the need to coordinate paths with the existing operators' demand; and scheduling and access to intermodal terminal capacity, freight terminals, marshalling yards and other related below-rail infrastructure in Brisbane and along the North Coast Route.[117]

5.4.5 The features of the existing market

The starting point for an analysis of the future with and without declaration is to note some salient features of the existing market for above-rail freight haulage on the North Coast Route.

Two above-rail operators

Before 2018, the two above-rail freight operators on the North Coast Route were Pacific National and Aurizon Operations. In August 2017, Aurizon Operations announced its intention to sell its Queensland intermodal business (including operations on the North Coast Line) to Pacific National; in July 2018, this proposed sale was opposed by the ACCC.[118] In January 2019,

[115] Pacific National, sub. 37, p. 9.

[116] South West Producers, sub. 16, p. 14; Glencore, sub. 17, p. 15. The South West Producers and Glencore both mentioned the example of Pacific National who was able to enter the Queensland coal haulage industry through a contract underwritten by volumes from Glencore and Rio Tinto. See also ACCC, *Pacific National/Linfox—Proposed acquisitions of intermodal assets from Aurizon*, Statement of Issues, March 2018, p. 15, para. 91.

[117] ACCC, *Pacific National/Linfox—Proposed acquisitions of intermodal assets from Aurizon,* Statement of Issues, March 2018, p. 15, para. 91.

[118] ACCC, Pacific National Pty Ltd/Linfox—Proposed acquisitions of Intermodal assets from Aurizon, accessed 10 February 2020, https://www.accc.gov.au/public-registers/mergers-registers/public-informal-merger-reviews/pacific-national-pty-ltd-linfox-proposed-acquisitions-of-intermodal-assets-from-aurizon.

Aurizon Operations completed the sale of its Queensland intermodal business to Linfox.[119] Therefore, there will continue to be two above-rail freight operators on the North Coast Route—Pacific National and Linfox.

No evergreen renewal rights in access agreements

The QCA understands that access agreements with Queensland Rail are typically for a period of 10 years. Importantly, the existing access agreements for the Queensland Rail network (including for users of the North Coast Route service) do not provide evergreen renewal rights for the terms of access. Terms under these agreements (e.g. in relation to pricing, capacity allocation or usage of facilities) will progressively expire and must be renegotiated for new contracts within the bounds of an approved access undertaking.[120]

In contrast, the QCA understands that existing access agreements with DBCT Management in relation to access to DBCT contain 'evergreen' renewal clauses, which allow incumbent users the option to extend their agreements and continue to access DBCT based on the terms of access set out in the existing agreements, up to the volumes in these agreements (see Part C, section 3.3.2).

Queensland Rail is not vertically integrated with respect to freight services

Queensland Rail's above-rail business comprises solely passenger services; it is currently the only provider of passenger train services across Queensland.[121] Queensland Rail does not offer any above-rail freight haulage services and as such is not vertically integrated into the above-rail freight haulage market.[122] Queensland Rail has said that its constitution limits its operations to the provision of rail passenger transport and activities relating to the planning, development and ongoing maintenance of its rail transport infrastructure, and that this constitution can only be amended with the consent of Queensland Rail's shareholding Ministers.[123] Thus, the QCA considers it unlikely that Queensland Rail would enter the above-rail freight haulage market in the foreseeable future.

Spare capacity exists on the North Coast Line and the Metropolitan system

According to Queensland Rail's consultant, HoustonKemp, the North Coast Line is not currently operating at capacity:

> Figure 4.4 [of HoustonKemp's report] illustrates that none of the sections on the North Coast line are more than 50 per cent utilised. The most utilised section is Mackay to Durroburra at 44 per cent of train path capacity and the least used section Erkala to Mackay Harbour at 4 per cent. Thus, there is significant available capacity.[124]

Queensland Rail repeated in its submissions that it has excess capacity on its network:

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[119] Aurizon Operations, *Aurizon completes sale of Queensland intermodal business to Linfox*, media release, 1 February 2019, accessed 4 June 2019, https://www.aurizon.com.au/en/news/2019/Aurizon-completes-sale-of-Queensland-Intermodal-business-to-Linfox; Linfox, sub. 50, paras 1.1–1.2.

[120] South West Producers, sub. 4, p. 28. See also QCA, *Queensland Rail's Draft Access Undertaking*, decision, June 2016, sections 2.5 and 3.6, https://www.qca.org.au/wp-content/uploads/2019/05/30680_Secondary-Undertaking-Notice-attachment-QCA-Decision-1.pdf, for a discussion of access renewal rights in the context of the Queensland Rail 2015 Draft Access Undertaking process (which resulted in the Queensland Rail 2016 Access Undertaking).

[121] With the exception of a small number of small, localised, private tourist train operators.

[122] Queensland Rail, sub. 8, p. 1, para. 2; Queensland Rail, sub. 33, p. 15, para. 79.

[123] Queensland Rail, *Draft Queensland Rail Access Undertaking 1*, explanatory submission, March 2012, pp. 15–17, https://www.qca.org.au/wp-content/uploads/2019/06/8354_r-qrail-qrail2012dau-expdocs2012dau-0412.pdf.

[124] Queensland Rail, sub. 33, attachment B, p. 22.

> Queensland Rail has excess capacity on its network. A non-vertically integrated service provider with excess capacity has strong economic incentives to maximise utilisation on its network (so as to recover some proportion of its fixed costs) and thus has an incentive to promote (rather than limit) competition in downstream markets.[125]

Queensland Rail argued that the existence of excess capacity on its network is one of the reasons that demonstrates it does not have the ability or incentive to exercise market power to adversely affect competition in any dependent market.

5.5 Queensland Rail's ability and incentive to exercise market power

Whether access (or increased access) to the service, on reasonable terms and conditions, as a result of declaration would promote competition in the dependent above-rail freight haulage market depends firstly on whether Queensland Rail has market power that it could use to adversely affect competition in the dependent market; and secondly on whether Queensland Rail has an ability and incentive to exercise that market power, in a future without declaration.[126]

As a business, Queensland Rail has an incentive to maximise profits.[127] For example, under s. 10 of the *Queensland Rail Transit Authority Act 2013* (Qld), Queensland Rail is required to carry out its functions as a commercial enterprise (except its community service obligations). Similarly, under Queensland Rail's constitution, one of the objects of the company is 'the provision of network rail services and access to rail networks owned or operated by the Company or its subsidiaries for reward'.[128]

The QCA considers that Queensland Rail does have market power that could be used in a way that adversely affects competition in dependent markets, including the above-rail freight haulage market. Queensland Rail is the natural monopoly provider of the service that is fundamental to the operation of the above-rail freight haulage market (among other dependent markets). Queensland Rail has argued that in a future without declaration, it would be constrained in its ability and incentive to exercise that market power to adversely affect competition in any dependent market.[129]

In its submission in response to the QCA's draft recommendation, Queensland Rail raised detailed arguments and provided data to support its position that criterion (a) was not satisfied:

> Queensland Rail submits that criterion (a) is not satisfied in relation to any of the services it provides because, contrary to the QCA's preliminary findings, Queensland Rail does not have the ability or incentive to exercise market power to adversely affect competition in any dependent market. This is because:
>
> - Queensland Rail is no longer a vertically integrated service provider of rail transport services …
> - Queensland Rail has excess capacity on its network …

[125] Queensland Rail, sub. 33, p. 15, para. 79.2; Queensland Rail, sub. 8, p. 4, para. 25.
[126] For example, NCC, *Declaration of Services, A guide to declaration under Part IIIA of the Competition and Consumer Act 2010 (Cth)*, April 2018 edn, p. 33, para. 3.26; *Duke Eastern Gas Pipeline* [2001] ACompT 2 at [116]; Queensland Rail, sub. 33, p. 19, para. 100; South West Producers, sub. 40, p. 19; Glencore, sub. 41, p. 14.
[127] Or minimise losses.
[128] Queensland Rail, *Constitution of Queensland Rail Limited*, accessed 27 June 2019, https://www.queenslandrail.com.au/aboutus/governance.
[129] Queensland Rail, sub. 33, p. 15, para. 79.

- Queensland Rail faces intense and increasing competition from road operators.[130]

Queensland Rail's submissions in support of its argument that it has no ability or incentive to exercise market power can be considered under three broad categories:

(1) As a non-vertically integrated service provider with excess capacity on its network, Queensland Rail has 'strong economic incentives to maximise utilisation on its network (so as to recover some proportion of its fixed costs) and thus has an incentive to promote (rather than limit) competition in downstream markets'.[131]

(2) Queensland Rail is materially constrained in the provision of below rail services by road freight operators. It said that '[r]oad transportation offers an effective substitute service to rail, which has a significant and direct downward impact on the prices that Queensland Rail negotiates with access seekers'.[132]

(3) Queensland Rail is constrained by other factors, such as:

(a) its statutory obligations and position as a statutory authority[133]

(b) the threat of regulation or declaration[134]

(c) dependent markets are already effectively competitive.[135]

Each of these points, as well as the access arrangements applied by Queensland Rail, are discussed below. The operation of the access framework as a possible constraint on Queensland Rail's ability and incentive to exercise market power is considered in Part B, Chapter 4.

5.5.1 Non-vertically integrated service provider with excess capacity

No relevant vertical integration

Queensland Rail noted that it is no longer a vertically integrated service provider of rail transport services:

> Queensland Rail is not (and does not intend to become) vertically integrated in a way that would give it an ability and incentive to leverage any market power into a dependent market.
>
> The provision of track services and the running of freight trains can be provided separately and occur in functionally distinct markets. Currently, Aurizon and Pacific National provide freight services on Queensland Rail's systems. Queensland Rail provides below rail services on its systems but does not operate freight trains. As a result, Queensland Rail is not vertically integrated in a relevant way and has no incentive to leverage any market power in the provision of below rail services to advantage a related entity providing above rail freight transport services. This will not change in the future without declaration.[136]

Other stakeholders did not dispute Queensland Rail's submissions on this issue.

The QCA considers that as Queensland Rail is currently not vertically integrated with respect to above-rail freight haulage services, it has no incentive to leverage any market power to favour a related entity in the provision of above-rail freight services. Queensland Rail is also unlikely to

[130] Queensland Rail, sub. 33, p. 15, para. 79.
[131] Queensland Rail, sub. 33, p. 15, para. 79.1–79.2.
[132] Queensland Rail, sub. 33, p. 15, para. 79.3.
[133] Queensland Rail, sub. 33, p. 32, paras 152–54.
[134] Queensland Rail, sub. 33, p. 32, para. 155.
[135] Queensland Rail, sub. 33, pp. 46–47, para. 225.
[136] Queensland Rail, sub. 33, p. 21, para. 112–13.

become vertically integrated with respect to above-rail freight haulage services over the period for which the service is recommended to be declared in the future.

However, a non-vertically-integrated firm such as Queensland Rail may nevertheless have an ability and incentive to exercise market power to increase its profits, which may adversely affect competition in a dependent market. Some examples of such an exercise of market power are discussed in section 5.6.2.

Excess capacity

Queensland Rail noted that there is excess capacity on its network and claimed that this excess capacity constrained its ability and incentive to exercise market power to adversely affect competition in a dependent market:

> A non-vertically integrated service provider with excess capacity has strong economic incentives to maximise utilisation on its network (so as to recover some proportion of its fixed costs) and thus has an incentive to promote (rather than limit) competition in downstream markets.
>
> … a consequence of spare capacity … is that an access seeker that can be charged any positive margin over the incremental cost of providing the service represents a contribution to Queensland Rail's substantial fixed cost base. As such, Queensland Rail has an incentive to maximise demand for its services (rather than price).[137]

Data from Queensland Rail demonstrates that it has spare capacity across the whole of its network, including significant spare capacity on the North Coast Line and the Metropolitan system.[138]

As Queensland Rail is not vertically integrated into the above-rail freight haulage market, and has capacity on its network, there may be certain circumstances where Queensland Rail could be incentivised to provide access in order to recover a proportion of the fixed costs of the network (examples of such circumstances are discussed below). In such circumstances, Queensland Rail would arguably have nothing to gain from denying an access seeker entry or restricting access; rather, it could obtain additional revenue from selling unused network capacity, assuming it is not constrained to charging a uniform price.[139]

However, as a general proposition, the presence of spare capacity does not imply that Queensland Rail will not behave in a profit-maximising manner. Put another way, a firm with market power has an incentive to maximise profits, not utilisation of capacity, even with spare capacity.

The QCA considers that a firm with market power would only have incentives to maximise volume in a limited set of circumstances. One such circumstance could be an infrastructure provider that faces previously unanticipated competition from another provider that has recently gained entry into the market. Given the presence of competition for demand, the incumbent provider might have an incentive to decrease its price below the profit-maximising

[137] Queensland Rail, sub. 33, p. 22, paras 118–19.
[138] Queensland Rail, sub. 33, attachment A, pp. 9–11.
[139] Under the 2016 access undertaking, Queensland Rail is not required to charge a uniform price on the North Coast Line or any other system except for West Moreton, where there is a reference tariff for coal trains. On the non-West Moreton systems, prices are negotiated between Queensland Rail and the customers seeking below-rail access.

price in order to gain sufficient revenue to cover (at least) its fixed costs. Importantly, this strategy would require some elasticity of demand for the service in order to expand output.[140]

However, this does not characterise the general situation of Queensland Rail. It is the dominant service provider in most of its markets and does not face the prospect of competition. For example, in the West Moreton and Mount Isa regions, rail is the most economical option for the haulage of bulk minerals and coal. In those markets, Queensland Rail faces a relatively inelastic demand for its service, as there is no economically viable long-term substitute for rail to transport bulk minerals and coal. Accordingly, the QCA considers that economic circumstances in these regions are more likely to support the standard profit-maximising incentive.

In addition, 'the hold-up problem' can arise in situations where an access seeker does not make an investment, or underinvests, due to its expectation that the future conduct of the monopoly input supplier (i.e. access provider) may result in the (future) expropriation of part, or all, of the value of the access seeker's investment. Importantly, the incentive is present for the access provider to expropriate part of the access seeker's investment after it is made (i.e. ex post), regardless of whether the access provider has spare capacity. While Queensland Rail is likely to have an incentive to solve this problem prior to the investment, its ability to effectively do so is limited (discussed in section 5.6.3).

The potential for hold-up can explain why regulation may still be necessary for firms that do not even earn a normal rate of return (for example due to excess capacity):

> According to the sunk investment hypothesis the presence or absence of monopoly rents is not the primary driver of regulation – rather, it is the scope for hold-up. A firm may have significant scope to hold-up its customers even if it is earning below normal returns – and indeed, the customers of a firm may be particularly exposed to hold-up if that firm receives some external source of funding (subsidies) which can be withdrawn at any time.[141]

This risk has been highlighted by stakeholders. For example, Pacific National stated:

> QR repeats its claim that, due to spare capacity on its network, it would have incentives to maximise demand for below-rail services, and that this would provide some constraint on its ability and incentive to exercise market power.
>
> This submission conflates the provision of access with provision of access on *reasonable terms*. While QR may face incentives to seek customers for its spare capacity, it will not be constrained in setting the terms of access to that capacity. On the contrary, QR will face incentives to maximise profits, and therefore may be expected to set unreasonable terms (as seen above, prices). Therefore the risk of hold-up remains, notwithstanding spare capacity in parts of the QR network.[142]

GrainCorp agreed, stating:

> As the QCA correctly observes [in the draft recommendation], while QR may have an incentive to provide access to spare capacity (so long as it is profitable to do so), it will not have an incentive to provide access on reasonable terms and conditions. Rather, as a monopoly service provider, QR may be expected to maximise its profit, which is likely to involve increasing access charges to users such as GrainCorp who rely on access to its infrastructure. Therefore, the risk of

[140] For example, this type of increase in volume (through a reduction in price) took place between an incumbent natural gas pipeline and a new entrant natural gas pipeline (see *Duke Eastern Gas Pipeline Pty Ltd* [2001] ACompT 2).

[141] D Biggar, 'Is protecting sunk investments by consumers a key rationale for natural monopoly regulation?', *Review of Network Economics*, vol. 8, no. 2, 2009, pp. 23–24.

[142] Pacific National, sub. 37, p. 11.

> hold-up remains for potential entrants (or recent entrants wishing to expand their operations), notwithstanding spare capacity in parts of the network.[143]

The prospect of hold-up, even in the presence of excess capacity, is an important issue. The hold-up problem is discussed in detail in a separate section (section 5.6.2).

5.5.2 Competition between road freight and rail freight transport

Queensland Rail argued that it has no ability or incentive to exercise market power to adversely affect competition in any dependent market because it is materially constrained in the provision of below-rail services by road freight operators:

> In the future without declaration, Queensland Rail would be materially constrained in the provision of below rail services for the purposes of transporting freight by … strong competition from road operators, which provide a closely substitutable service in respect of the transportation of freight, other than some bulk commodities being transported over long distances. Parties requiring freight transportation services can readily shift to moving freight by road in the event of an increase in access price and/or decline in quality of service provided.[144]
>
> Road transportation offers an effective substitute service to rail, which has a significant and direct downward impact on the prices that Queensland Rail negotiates with access seekers.[145]

The QCA notes that Queensland Rail, in its submission in response to the QCA's draft recommendation, has substantially increased both the volume and detail of the arguments made in its earlier submission. The submission included detailed data and consultants' reports, which were not previously made available to the QCA. In considering this substantial volume of new information, the QCA has revised its analysis in relation to the competition between road and rail freight on the North Coast Line, as detailed below.

The nature of the freight task on the North Coast corridor

In assessing Queensland Rail's submissions, the QCA considers it beneficial to provide a discussion of the nature of the freight task on the North Coast corridor, in particular, the use of road and the use of rail for the transportation of freight.

The 'North Coast corridor' describes the route along Queensland's eastern coastline, bounded by Brisbane in the south and Cairns in the north, which passes through the regional cities of Bundaberg, Gladstone, Rockhampton, Mackay and Townsville. This transportation corridor includes both the Metropolitan and North Coast Line rail systems, as well as the Bruce Highway road infrastructure (which for many parts of the route runs adjacent to the North Coast Line).

The presence of competition between road operators and above-rail haulage operators in providing freight transport services on the North Coast corridor has been acknowledged by various stakeholders. For example, Pacific National stated:

> The effect of declaration meant rail haulage providers could grow their business outside of specific tenders through investment. Rail haulage providers could create business opportunities and new freight markets in intermodal and bulk to compete against road transport.[146]
>
> …
>
> Regulated access has also enabled PN to compete effectively with road freight operators in Queensland, particularly on the North Coast corridor and Mt Isa corridor.[147]

[143] GrainCorp, sub. 52, p. 9.
[144] Queensland Rail, sub. 8, p. 4, para. 25; sub. 33, p. 25, para. 131.1.
[145] Queensland Rail, sub. 8, p. 1, para. 3; sub. 33, p. 15, para. 79.3.
[146] Pacific National, sub. 37, p. 5.

…

> Access to the monopoly below rail infrastructure supports a highly competitive environment for haulage along these freight corridors. In the haulage market, PN competes with other above-rail operators such as Aurizon, as well as other modes of freight transport (e.g. road transport).[148]

The Ranbury Management Group (Ranbury), stated in its final report on the *North Coast Line capacity improvement study:*

> The freight on the North Coast Line can be categorised as either contestable freight or non-contestable freight. Contestable freight is defined as the current freight task being transported by rail that is more than likely able to be converted to road transport. Non-contestable freight is defined as the current freight task being transported by rail that cannot easily be subject to a mode shift to road … This [intermodal] freight task is generally able to be easily switched between rail and road transport … The non-contestable freight includes nickel ore and bulk products from the Mount Isa line.[149]

Additionally, Queensland Rail highlighted previous statements made by Pacific National, Aurizon and the Australian Rail Track Corporation to the effect that rail competes with road for the transport task in the intermodal freight market.[150]

The QCA considers that the extent to which the transportation of freight by road can compete with the transportation of freight by rail depends on the extent to which road transport is substitutable for rail transport for the particular type, volume and distance of freight to be transported. A range of factors determines the appropriate mode for any transport task. These include:

- the type, size and volume of product to be transported
- the suitability/capability of the mode to transport and handle the product
- total door-to-door cost
- reliability of the transport mode
- the origin/destination pairing of the task
- the required transit time
- service frequencies offered
- flexibility of service offerings
- level of customer service provided.[151]

Ranbury also stated:

> The relative importance of the various factors will differ from customer to customer, heavily influenced by the features of the supply chain (ease of substitution) and most recent experiences. ARTC market research on freight forwarder and end customer users of rail concluded that price was the major driver of mode choice. Even though other factors such as reliability, frequency and consistency are considered, price or cost to the customer remains the critical factor.[152]

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[147] Pacific National, sub. 9, p. 6.
[148] Pacific National, sub. 9, p. 8.
[149] Queensland Rail, sub. 33, attachment C, pp. 47–48.
[150] Queensland Rail, sub. 33, pp. 31–32, para. 150.
[151] Queensland Rail, sub. 33, attachment C, p. 73.
[152] Queensland Rail, sub. 33, attachment C, p. 73.

The effect of the product type (bulk vs non-bulk products)

The Bureau of Infrastructure, Transport and Regional Economics (BITRE) found that the suitability of the transport mode depended upon the transport task, saying:

> Each mode [road or rail] has attributes that render them more suitable, and generally less costly, for particular transport tasks. For example, the flexibility of road transport for urban goods distribution is unassailable; equally, the scale economies of rail over longer distances and for bulk commodities advantage it, over road, for these tasks.[153]

Road transport is generally preferable for non-bulk goods, including perishable, fragile and high-value commodities (e.g. food, manufactured goods, retail products), which tend to be more time- and reliability-sensitive. As the ACCC stated:

> [R]oad freight is generally faster, as there are no strict cut off times, and in some cases more reliable as it is less prone to delay due to weather or maintenance events. For these reasons, road freight is considered better for goods with a short shelf life or otherwise with highly time sensitive delivery. Transport by road is also considered to be gentler on freight than transport by rail, making it more suitable for moving easily damaged goods. The flexibility of transport by a truck can make road freight more appropriate for products which need to be collected from a farm gate or a destination sufficiently far from the nearest rail terminal, such that the pick-up and delivery component would extend the total price and journey time.[154]

The advantages of using road transport as compared against rail transport were also highlighted by Queensland Rail in its submission. For example:

- Road transport involves less complexity, as the responsibility for delivery usually rests on one road service operator. In contrast, rail transport involves the services of below-rail, above-rail and pick-up and delivery operators (although Queensland Rail acknowledges that freight forwarders do offer customers an end-to-end solution using rail transport).
- Road transport provides greater reliability than rail. Given the single track nature of the North Coast Line, planned maintenance and unplanned incidents can cause greater disruption to a customer using rail than a customer using road, particularly given the larger volumes that a full train can carry compared to a full truck, if a service is disrupted.[155]
- Road transport options provide a shorter transit time—this factor is relevant for goods that are time sensitive.[156]

In contrast, rail transport is generally preferable for bulk freight, which involves large volumes of homogenous product, typically liquid or crushed material (e.g. coal, minerals, sugar, grain), transported in mass quantities, without packaging, and which tend to be relatively non-perishable and non-fragile. As the ACCC noted:

> Market feedback has indicated that freight owners moving large volumes of non-perishable or long-shelf life perishable goods view rail as the more appropriate mode over longer distances due to its tonnage and volume capacity, lack of time sensitivity and lower price.[157]

---

[153] BITRE, *Road and rail freight: competitors or complements?,* information sheet 34, Australian Government, July 2009, p. 1.

[154] ACCC, *Pacific National/Linfox—Proposed acquisitions of intermodal assets from Aurizon*, Statement of Issues, March 2018, p. 13, para. 78.

[155] Although road transport is not immune to disruptions: the Bruce Highway is a one-lane highway (in each direction) throughout most of Queensland and often runs parallel to the North Coast Line. Unplanned incidents (such as weather events or traffic incidents) are also likely to cause sections of the Bruce Highway to be inaccessible for periods of time.

[156] Queensland Rail, sub. 33, pp. 27–30, paras 144–46.

BITRE also made it clear that road transport has only a very minor role in bulk freight transport:

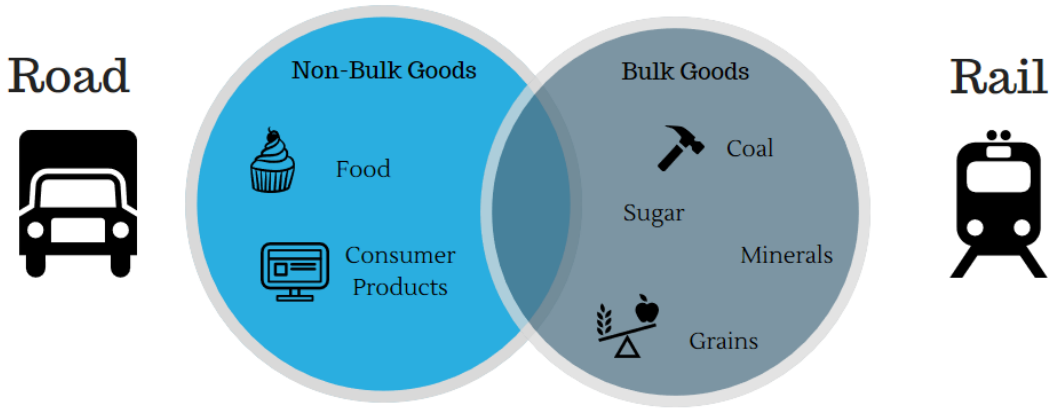
> Australia's bulk freight task is dominated by rail (48 per cent) and shipping (36 per cent) … Road carries only a small proportion of bulk freight, with most of this aggregate building supplies, such as sand and gravel, generally carted short distances (less than 20 kilometres) … Transporting many of these commodities [bulk freight] by road would be vastly more expensive, and so there is effectively no competition from road transport.[158]

Rail enjoys an inherent cost advantage in the transport of bulk freight. This is due to its ability to exploit economies of scale (e.g. by attaching more wagons to a locomotive, a greater volume of goods can be carried for the one locomotive and one train path). Therefore, rail is able to transport large volumes of bulk freight at lower average cost than road transport, as road transport does not have economies of scale for large volumes (e.g. one truck can only carry a defined volume).

In summary, road transport is generally more advantageous for transporting non-bulk goods such as food and consumer products, which may be fragile or time-sensitive, or require flexibility in their delivery. This is because rail transport is subject to the availability of train paths (which are usually pre-planned), whereas road transport can typically depart as soon as the cargo is loaded. Additionally, transit times by rail are often slower than transit times by road, as the condition of Queensland Rail's below-rail infrastructure, as well as constraints from train path planning, mean that trains on the Queensland Rail network may be constrained by speed restrictions which are below the speed restrictions on the equivalent highways (i.e. between the same origin-destination pair as the train path).[159]

Rail transport is generally more advantageous for transporting bulk goods such as minerals or grain (which tend to be heavy), and non-perishable or long-shelf-life goods in large volumes, which generally require repeated deliveries to and from predefined points (e.g. a mine or grain silos to an export port). Figure 5 provides a graphical representation of the road and rail usage for the transportation of goods by product type.

Figure 5 Road and rail transportation by types of goods



[157] ACCC, *Pacific National/Linfox—Proposed acquisitions of intermodal assets from Aurizon*, Statement of Issues, March 2018, p. 13, para. 79.

[158] BITRE, *Road and rail freight: competitors or complements?,* information sheet 34, Australian Government, July 2009, p. 3.

[159] Deloitte Access Economics, *Establishing the need for the last mile. Making the case for a dedicated freight rail link from Acacia Ridge to the Port of Brisbane*, final report, prepared for the Port of Brisbane Pty Ltd, n.d., https://www.portbris.com.au/getmedia/b793e8b5-edee-4945-850f-6feec8835720/DAE-Connecting-Inland-Rail-to-the-Port-of-Brisbane.pdf.

The effect of distance

Outside these specific instances where road or rail have inherent advantages, market evidence suggests that price is the key determinant of modal choice for freight that can technically be carried by either road or rail.[160]

BITRE noted that in terms of Australian average freight costs, the average road freight cost per kilometre is more or less constant with respect to distance, whereas average rail costs decline with increasing freight volumes and distances, such that rail is cheaper for door-to-door freight hauls (i.e. rail freight tasks including door-to-door pick-up and delivery) above 1,000 km.[161]

Similarly, the ACCC noted that there is a 'tipping point' in terms of distance travelled, at which transport by rail is significantly cheaper than road:

> Market participants have referred to a 'tipping point (varying between 600-1000km, or roughly the distance between Brisbane to Rockhampton or Mackay) at which rail is significantly cheaper than road … Examples provided to the ACCC indicate that for freight carried beyond this tipping point, from Brisbane to Townsville/Cairns, road has been quoted as significantly more expensive than rail, with examples ranging from 15% more expensive to 300% more expensive. The ACCC has received tender information from a variety of market participants which shows that requests for tender for freight tasks from Brisbane to Cairns or Townsville are often only provided to or received by rail-based solutions. Market participants have provided the ACCC with a consistent message that unless their freight particularly requires road transport (for example, because it has a shorter shelf life and this is easily damaged), they generally do not consider road as an option past this tipping point.[162]

Ranbury also noted that 'rail competes strongly on price to the long-haul destinations from Brisbane to Mackay and north':[163]

> Rail cannot compete on short-haul legs (e.g. Gladstone/Rockhampton), other than in the industrial market where the heavier weight of product is more of a consideration …
>
> The Mid North Coast region, up to Mackay, is acknowledged as being a road captive corridor. Rail becomes competitive on cost above Mackay and has a reasonable differential once you reach Townsville …
>
> The large customers typically use rail for long haul interstate corridors such as Melbourne – Brisbane and long haul intrastate corridors such as Brisbane – Far North Queensland, while using road for all other medium and short haul corridors (e.g. Brisbane – Mid North Coast).[164]
>
> …
>
> Rail competes strongly on price to the long haul destinations from Brisbane to Mackay and north.[165]

Rail transport does compete with road transport for containerised (intermodal) freight on the North Coast corridor

On the basis of the evidence discussed above, the QCA considers that the freight task on the North Coast corridor is segmented. Some customers have specific freight that is most

[160] Queensland Rail, sub. 33, attachment C, p. 73; ACCC, *Pacific National/Linfox—Proposed acquisitions of intermodal assets from Aurizon*, Statement of Issues, March 2018, p. 13, para. 80.
[161] BITRE, *Road and rail freight: competitors or complements?*, information sheet 34, Australian Government, July 2009, p. 8.
[162] ACCC, *Pacific National/Linfox—Proposed acquisitions of intermodal assets from Aurizon*, Statement of Issues, March 2018, pp. 13–14, paras 80–81.
[163] Queensland Rail, sub. 33, attachment C, p. 11.
[164] Queensland Rail, sub. 33, attachment C, p. 100–102.
[165] Queensland Rail, sub. 33, attachment C, p. 11.

appropriately transported by road (e.g. fragile or time-sensitive goods), for which the freight task is road-captive; equally, some customers have freight that is most appropriately transported by rail (e.g. bulk products).

However, the new range of evidence from stakeholders suggests that containerised (intermodal) freight on the North Coast corridor can, in most instances, technically be transported by either road or rail.[166] In these instances, the QCA considers that rail transport does compete with road transport for this freight task, and competes primarily on price.

As Ranbury noted:

> A significant freight task is undertaken on the Queensland north coast corridor. This corridor is serviced by all the transport modes with the majority of the freight on road and a minor share on rail. However not all of the freight task on the north coast corridor is contestable between road and rail. Bulk freight is predominantly on rail and intra-regional general freight is 100% on road. The contestable component of the NCL freight market is the general freight intermodal line-haul market segment that travels principally between the origin-destination pairs of SEQ [South East Queensland] and major North Queensland and Central Queensland regional cities include Cairns, Townsville, Mackay, Rockhampton and Gladstone.[167]

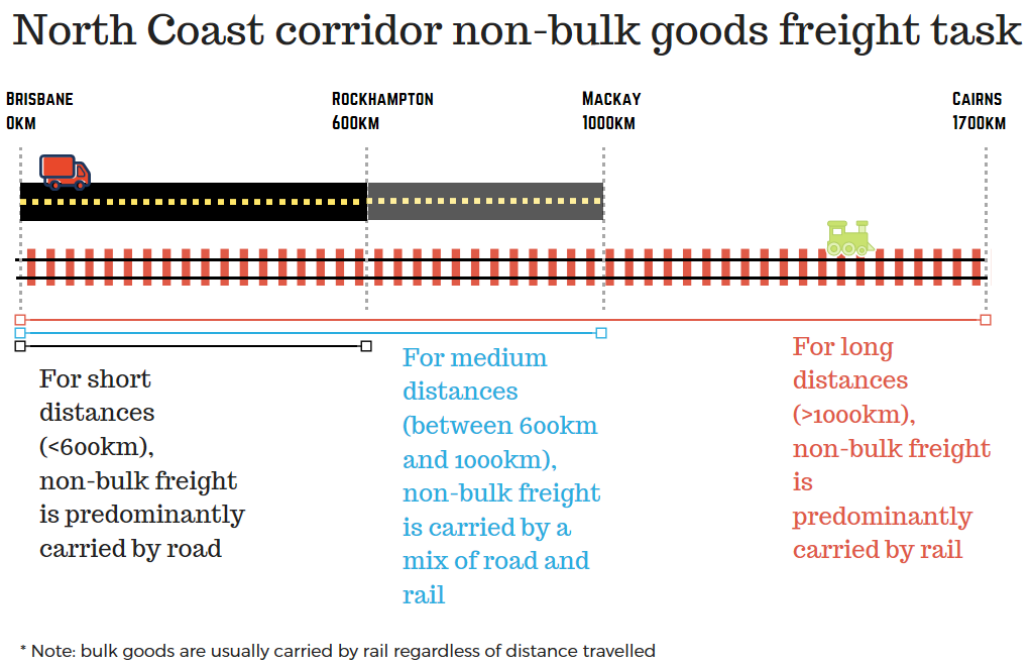
The QCA recognises that there is some variation in the evidence that has been reviewed on the precise distance at which transport by rail becomes more cost-effective than transport by road. Based on the evidence before it, the QCA finds:

- For non-bulk products travelling short distances (less than 600 km), road is the preferred transport mode.
- For non-bulk products travelling medium distances (between 600 and 1,000 km), road and rail compete for the freight task, although rail has been losing market share to road freight in recent years.[168]
- For non-bulk products travelling long distances (greater than 1,000 km), rail is the preferred transport mode (although rail has also been losing market share to road freight in this market segment in recent years).[169]
- For bulk products, particularly mining products, rail is the preferred transport mode, almost irrespective of distance travelled (unless for very small distances, such as less than 20 km).

Figure 6 depicts the segmented nature of the freight task on the North Coast corridor.

[166] For example, the transport of non-bulk freight that is neither fragile nor time-sensitive.
[167] Queensland Rail, sub. 33, attachment C, p. 104.
[168] Queensland Rail, sub. 33, p. 31, para. 149.1; sub. 33, attachment C, p. 10.
[169] Queensland Rail, sub. 33, attachment C, p. 10.

Figure 6 Choice of transport modes for the North Coast corridor



Does competition from road transport constrain Queensland Rail's ability and incentive to exercise market power?

The QCA considers that rail transport does compete with road transport for the transport of containerised (intermodal) freight on the North Coast corridor. The issue is then whether competition from road transport operators provides an effective long-term constraint on Queensland Rail's ability and incentive to exercise market power in the dependent above-rail freight haulage market.

Queensland Rail repeatedly argued that it is materially constrained in the provision of below-rail services by competition from road:

> Queensland Rail is materially constrained in the provision of below rail services to freight operators. Most significantly, for all freight other than some bulk commodities being transported over long distances (such as coal on the West Moreton System), Queensland Rail faces intense and increasing competition from road operators. Road transportation offers an effective substitute service to rail, which has a significant and direct downward impact on the prices that Queensland Rail negotiates with access seekers.[170]
>
> Parties requiring freight transportation services can readily shift to moving freight by road rather than rail in the event of an increase in access price and/or decline in quality of services provided.[171]

Queensland Rail's argument is considered in detail below, with the assistance of the diagram in Figure 7.

[170] Queensland Rail, sub. 8, p. 1, para. 3; sub. 33, p. 22, para. 122.
[171] Queensland Rail, sub. 8, p. 4, para. 25(a)(ii)(a).

Figure 7 Road and rail price composition on the North Coast corridor for the transport of containerised (intermodal) freight

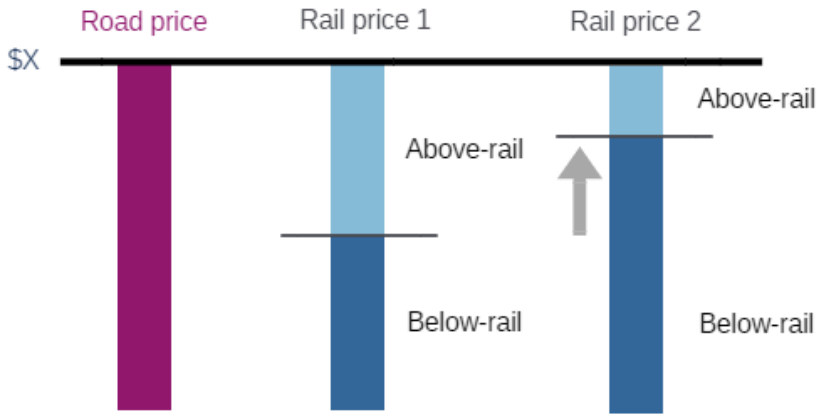


Diagram for illustrative purposes only. Not drawn to scale.

The road price

Figure 7 depicts the prices charged by road and rail operators on the North Coast corridor for the transportation of containerised (intermodal) freight. The road price represents the final price paid by beneficial freight owners (or forwarders) to transport containerised freight by road[172], for a particular transport task (origin–destination pair) on the North Coast corridor.[173] There is no 'below-road' price in Queensland—that is, trucks accessing major road networks in Queensland, such as the Bruce Highway, typically do not pay an access fee. Therefore, the road price is expected to reflect largely the costs of the trucking operator (for example, labour costs, vehicle costs and fuel costs, as well as a profit margin). The road freight industry in Australia is highly competitive[174], and as such, this road price may be the market price for the transport of that particular task by road on the North Coast corridor.[175]

The rail price

The rail price represents the final price paid by beneficial freight owners (or forwarders) to transport containerised freight by rail, for the same particular transport task (origin–destination pair) on the North Coast Route.[176] The total rail price consists of two components—an above-rail component, which represents the charges of the above-rail operator, and a below-rail component, which represents the charges of the below-rail operator (Queensland Rail).

Queensland Rail's consultant, HoustonKemp, stated:

[172] 'Containerised freight' refers to the type of goods that would be transported in containers by rail haulage (see section 5.4.3). The precise packaging of these goods for transport (e.g. the use of rail containers) may differ between road and rail transport.

[173] For example, from Brisbane to Mackay via the Bruce Highway.

[174] See for example, BITRE, *Road and rail freight: competitors or complements?,* information sheet 34, Australian Government, July 2009, p. 9.

[175] However, the precise dollar amount of the road price, or the nature of the market for the transport of containerised freight by road on the North Coast corridor, is not critical to support this analysis and is therefore not discussed further.

[176] For example, from Brisbane (Acacia Ridge) to Mackay via the North Coast Route.

> Unlike other systems, Queensland Rail does not have a direct relationship with end customers on the North Coast Line.[177]

The reference to 'end customers' appears to refer to the beneficial freight owners (or forwarders) who ultimately acquire rail transport services to transport their goods. In the QCA's analysis of the dependent above-rail freight haulage market, these 'end customers' are customers in the above-rail freight haulage market (see Figure 3).

The QCA understands that on the North Coast Route, above-rail freight haulage operators (such as Pacific National and Linfox) contract with Queensland Rail directly for access, and negotiate a below-rail access price.[178] Above-rail haulage operators then add their above-rail charges (for example, labour costs, rollingstock costs and fuel costs, as well as a profit margin) to the below-rail access price to produce a final total rail price, which is the price offered to the 'end customers', the beneficial freight owners (or forwarders).

The total rail price is represented by the blue bar labelled 'Rail price 1' in Figure 7. This bar has been split into a below-rail and above-rail component to represent the analysis above (note the diagram is for illustrative purposes only and does not seek to represent the actual share of the total price between the above-rail and below-rail operators).

Queensland Rail's ability and incentive to exercise market power is constrained with respect to customers in the above-rail haulage market (end customers) on the North Coast corridor

Based on the evidence submitted by stakeholders, the QCA considers that rail transport competes with road transport for the transport of containerised (intermodal) freight on the North Coast corridor, and competes primarily on price.

For this contestable freight task, the road price ($X in Figure 7) acts as a constraint on the rail price. This is because these goods can technically be transported by either road or rail. Therefore, if the total rail price exceeds the road price, end customers (e.g. beneficial freight owners) can choose to transport their goods by road instead, and rail operators will lose market share to road operators for the transport of this freight.

As a result, the above-rail price and below-rail price are collectively constrained by the road price. It is open for the above-rail operator and below-rail operator to seek to increase their *share* of the total rail price; however, the absolute *amount* of this total rail price cannot rise above the constraint of the road price. If it does, end customers may switch from using rail transport to using road transport, and this will in the long run negatively affect both the above-rail and below-rail operators.

Queensland Rail emphasised this point:

> The alternative offered by road means that end customers have alternative avenues open to them other than using Queensland Rail's systems. This provides end customers with significant countervailing power, as the option of road transport means that they can make a credible threat to withdraw from negotiations with Queensland Rail (or an above rail provider) and switch to using road if a competitive price and reasonable terms and conditions are not offered by Queensland Rail for the below rail service.[179]

[177] Queensland Rail, sub. 33, attachment B, p. 21.
[178] Currently, under Queensland Rail's 2016 Access Undertaking, there are no reference tariffs that apply to services on the North Coast Line.
[179] Queensland Rail, sub. 33, p. 26, para. 139.

The QCA considers that Queensland Rail is constrained in its ability and incentive to exercise market power with respect to the *end customers* on the North Coast corridor by competition from road transport.

In the QCA's analysis of the dependent above-rail freight haulage market, these 'end customers' are the customers in that market (see Figure 3). This is because if Queensland Rail sought to raise the below-rail price, and the above-rail operator is assumed to pass on this increase in full[180], the total rail price may exceed the road price, and if it does, end customers may simply switch from rail transport to road transport to transport their goods.

Queensland Rail's ability and incentive to exercise market power is not constrained with respect to above-rail operators in the above-rail freight haulage market

The QCA considers that Queensland Rail *is not* constrained in its ability and incentive to exercise market power against the above-rail freight haulage operators on the North Coast Line by competition from road transport. These above-rail haulage operators are the suppliers in the dependent above-rail freight haulage market, but customers in the primary market for the service (see Figure 3).

Given that rail competes with road for the transport of containerised (intermodal) freight on the North Coast corridor, the above-rail operator and the below-rail operator together face a collective constraint on the total rail price that can be charged—that constraint is the road price for the equivalent transport task (origin–destination pair).

In a future without declaration, Queensland Rail is likely to seek to exercise its market power, where it is possible to do so, in order to maximise its profits. It may seek to exercise this market power by raising the below-rail access charge that it charges the above-rail operator on the North Coast Route, and seek to claim a larger share of the total rail price (this scenario is illustrated as 'Rail price 2' in Figure 7).

In this scenario, the above-rail operator is unlikely to be able to switch to using road infrastructure, in response to the increase in the below-rail access charge, as rollingstock cannot be converted for use on roads. The above-rail operator will have made significant sunk investments into long-life assets, such as locomotives and wagons, which are often specifically configured for use for the transport task on the North Coast Route (e.g. narrow gauge, specific tonne axle loads) and which are unlikely to be easily redeployed elsewhere. As Pacific National noted:

> PN has sunk investment into long-lived infrastructure, the use of which relies on access to QR's below-rail infrastructure. Where customers require haulage along routes served by the QR infrastructure, and in order for PN to utilise its sunk assets, PN has no option but to acquire rail track network access from QR. This places QR in a position where it can exercise market power, and creates a hold-up risk …
>
> This is the case even where PN faces competition in haulage markets. Due to the sunk asset-specific and long-lived nature of its investment, there is no real prospect of PN switching away from the use of the QR infrastructure … PN cannot credibly make a threat to withdraw from negotiations with QR, regardless of the degree of competition from road operators. To illustrate, consider the credibility of a threat by PN to stop using QR's below-rail infrastructure, and to redeploy its rolling stock to offer freight services by road – such a threat clearly would not be

[180] The situation where the above-rail operator 'absorbs' the below-rail price increase (i.e. does not pass on the below-rail price increase in full) is considered below.

> credible, given the sunk, asset-specific and long-lived nature of PN's investment in rolling stock and other above-rail infrastructure.[181]

The QCA considers that in this case, if Queensland Rail raised the below-rail access charge, the above-rail operator cannot make a credible threat to exit the market or switch to road transport in response. Furthermore, the above-rail operator faces the collective constraint (the road price), and cannot simply pass through the below-rail access charge increase. If the total rail price exceeds the road price, the above-rail operator is likely to lose end customers (who may switch to road transport to transport their goods).

For an existing above-rail operator, arguably this scenario can be regarded as a transfer of wealth between the above-rail operator and the below-rail operator, with little direct impact on competition in the above-rail market. However, the QCA considers that the critical issue is that a potential above-rail operator seeking to enter the above-rail market, or an existing operator seeking to reinvest in the market, can foresee this risk—that any future (sunk) investments it makes may be exposed to the risk of expropriation by the below-rail operator in a future without declaration.[182] Queensland Rail may have an incentive to solve this problem before the investment, however, Queensland Rail's ability to solve this 'hold-up' problem is limited (this is discussed in detail in section 5.6.3).

Ranbury also discussed this risk in its report on the North Coast Line capacity improvement study:

> Likewise, a lack of strategy to invest in a meaningful way in the [North Coast] corridor [by Queensland Rail], will signal to Rail Operators as well as current and future rail freight customers that there is little incentive for them to invest in their business for a rail intermodal freight future. There is a high stranding risk in the above-rail business for the contestable freight market, which is not protected by the long-term take-or-pay contracting arrangements that apply in the bulk haul market. The contestable intermodal market involves only short term contracting arrangements with even the major customers, which is a significant impediment to investment in long life rail assets.[183]

Therefore, the QCA does not consider that competition from road will be an effective constraint on Queensland Rail's ability and incentive to exercise market power against the above-rail operators in the above-rail freight haulage market. The QCA considers that above-rail operators in the above-rail freight haulage market may be exposed to the risk of hold-up in a future without declaration. The hold-up issue is discussed in detail in section 5.6.2.

5.5.3 Other constraints on Queensland Rail's ability and incentive to exercise market power

Queensland Rail argued (in addition to the issues discussed at sections 5.5.1 and 5.5.2 above) that it has no ability or incentive to exercise market power to adversely affect competition in any dependent market because it is materially constrained by a range of other factors. These include:

- Queensland Rail's statutory obligations and position as a statutory authority and recipient of Transport Services Contract (TSC) payments
- access arrangements

[181] Pacific National, sub. 37, p. 10.
[182] A discussion of the sunk nature of investments in rollingstock on the North Coast Route is in sections 5.4.4 and 5.6.2.
[183] Queensland Rail, sub. 33, attachment C, pp. 186–87.

- the threat of regulation or declaration
- dependent markets are already effectively competitive.

Each of these factors will be considered in turn.

Queensland Rail's statutory obligations and position as a statutory authority

Queensland Rail submitted that its statutory obligations, its position as a statutory authority, and its obligations under the TSC would constrain it in the provision of below-rail services:

> As a statutory authority, Queensland Rail is one of the avenues through which the Queensland Government achieves its rail policy objectives. One such objective is to facilitate the efficient movement of freight through expanding the use of rail. Increasing access charges would be inconsistent with this objective.
>
> In the event of conduct by Queensland Rail that compromised the Queensland Government's objectives (for example, limiting access to its network), the responsible Ministers have powers including in particular the powers under the QRTA Act [*Queensland Rail Transit Authority Act 2013* (Qld)] to control strategic and operational plans (with which Queensland Rail must comply); and issue written directions to Queensland Rail.[184]

Pacific National disagreed, stating:

> Ongoing regulation is required to ensure QR operates and provides access to its rail track network infrastructure efficiently – the disciplines currently imposed by regulation (such as non-discrimination and ringfencing) would not arise simply by virtue of QR's position as a statutory authority, the fact that some downstream customers may have more limited ability to pay, or the existence of spare capacity in some parts of the system.[185]

The QCA recognises Queensland Rail's position as a statutory authority, and its obligations under the *Queensland Rail Transit Authority Act 2013* (Qld). However, the QCA also notes that under section 10 of the *Queensland Rail Transit Authority Act 2013* (Qld), Queensland Rail is required to carry out its functions as a commercial enterprise (except its community service obligations).

The QCA does not have visibility over the government rail policies and objectives to which Queensland Rail refers. Generally, the QCA notes that government policies are subject to change and ministerial powers may be discretionary. The QCA considers that Queensland Rail's general obligations under the statute are not an effective long-term constraint on its ability and incentive to exercise market power in a future without declaration.[186]

Access arrangements

The QCA has given consideration to whether the access arrangements that are to apply in a future without declaration would constrain Queensland Rail's ability to exercise market power. In doing so, the QCA has given consideration to the access agreements applied by Queensland Rail, including its deed poll and access framework.

As discussed in section 5.4.5, Queensland Rail's access agreements are not evergreen in nature. That is, they do not provide access seekers with the option to continue to access the service

[184] Queensland Rail, sub. 8, p. 4, para. 25(a)(ii)(c); sub. 33, p. 32, paras 152–54.
[185] Pacific National, sub. 37, p. 14.
[186] In contrast, in relation to the Tablelands system, the QCA considered that specific provisions of the *Transport Infrastructure Act 1994* (Qld), which imposed specific obligations on Queensland Rail in relation to passenger services, were likely to be an effective constraint on Queensland Rail's ability to exercise market power in relation to the above-rail passenger market on that system (see section 9.5).

based on the terms of access set out in the initial agreements. Users are required to renegotiate the terms of access at the time contractual arrangements expire, generally under the same principles applicable to an access seeker acquiring a service for the first time (subject to specific provisions in the access framework). Additionally, due to the fact that negotiations between the parties are bilateral, Queensland Rail's behaviour during negotiations is not transparent to other access seekers.

As outlined in Part B, Chapter 4, the QCA considers that the access framework is not an effective constraint on Queensland Rail's ability to expropriate rents[187] from access seekers at the time of renegotiating access contracts. The QCA considers that, in a future without declaration, the risk of hold-up will adversely affect the environment for competition in dependent markets.

The threat of regulation or declaration

Queensland Rail considered that the threat of regulation, with its associated compliance and regulatory costs, would deter it from exercising any market power to hinder competition in dependent markets.[188] Queensland Rail submitted that in a future without declaration, it would be materially constrained in the provision of below-rail services by 'the threat of regulation or declaration under Parts 3 or 5 of the QCA Act'.

In contrast, Pacific National, Glencore and the South West Producers considered that the threat of declaration or regulation does not provide an effective long-term constraint on Queensland Rail's ability and incentive to exercise market power in a future without declaration.

Pacific National stated:

> In sectors where there is a threat of regulation only, monopoly service providers have been found to be exploiting their position undeterred by the threat of future intervention. The threat of regulation also has a very long lead time so is not enough in itself to constrain damaging behaviour in the short to medium term.[189]

The South West Producers stated:

> As the South West Producers continue to note, the threat of redeclaration is not a real one. That is because in this hypothetical scenario the QCA would have already determined during the current declaration review process that, despite QR having no effective constraints, the service should not be declared applying the very same declaration criteria which would apply in any future application for declaration.[190]

While Queensland Rail did not specifically elaborate on how Part 3 of the QCA Act may apply to its activities, the South West Producers disagreed with Queensland Rail's submission, stating:

> The potential application of a Part 3 price monitoring and pricing principles investigation is very similar to the IPART price monitoring regime about which the NCC stated in the Newcastle shipping channel revocation draft decision that while 'these requirements may provide some very limited constraint of PNO's pricing practices by promoting transparency' they were 'not a substitute for the type of access regulation contemplated by the National Access Regime' and were not a 'direct regulatory constraint that acts to set or limit the prices that PNO may charge'.[191]

[187] In the case of the above-rail freight haulage market, this may be the possibility of expropriation of the firms' sunk costs, instead of rents. However, the hold-up problem also arises in these markets.
[188] Queensland Rail, sub. 8, p. 4, para. 25(a)(ii)(f); sub. 33, pp. 32–33, para. 155.
[189] Pacific National, sub. 37, p. 12.
[190] South West Producers, sub. 40, p. 28.
[191] South West Producers, sub. 40, pp. 28–29.

Glencore agreed with the South West Producers' submission.[192]

Examples of contrasting decisions in considering the effectiveness of the threat of declaration in constraining the ability and incentive of a service provider to exercise market power were provided by Queensland Rail and Pacific National; these decisions were made in the context of the regulation of gas pipelines in Australia.[193] It appears that whether the threat of declaration is considered to be an effective constraint in these decisions depended upon a case-by-case assessment of the particular characteristics of the market under consideration and the behaviour of the entity in question.

The QCA notes that Part 3 and Part 5 of the QCA Act serve different purposes. The access regime in Part 5 of the QCA Act is a comprehensive framework specifically designed to facilitate access to monopoly infrastructure services (where the service meets the access criteria). In contrast, Part 3 of the QCA Act provides for the declaration of monopoly business activities and the investigation and reporting by the QCA about pricing practices relating to monopoly business activities.[194]

The QCA does not consider that, on its own, the threat of declaration would constrain Queensland Rail from exercising market power.

If the threat of declaration could be relied upon to curtail the exercise of market power by Queensland Rail, the QCA considers that this would have manifested in Queensland Rail's deed poll and access framework, offered at a time when the threat of declaration is clear.

In relation to the service supplied by DBCT Management, the QCA has found that the response of DBCT Management to the present threat of declaration indicates that the threat of declaration is a factor impacting upon DBCT Management's conduct (Part C, section 3.3.5). Further, the QCA has found that the threat of declaration will provide a constraint when coupled with DBCT Management's deed poll and access framework, which allows the QCA to be satisfied that access as a result of declaration would not promote a material increase in competition in dependent markets (Part C, sections 3.3.7 and 3.4).

Central to this conclusion is the fact that DBCT Management, following the QCA's draft recommendation, modified its deed poll and access framework to enshrine the key elements of its pricing methodology in the deed poll (i.e. they cannot be modified during the term of the deed poll). This demonstrates a responsiveness to the threat of declaration that has caused the QCA to give greater weight to this factor in deciding whether criterion (a) is satisfied in relation to DBCT.

In contrast, Queensland Rail has maintained its pricing methodology in its access framework, where it can be unilaterally modified by Queensland Rail within the limits set out in the deed poll. In any event, the form of the deed poll and access framework are not an effective constraint on Queensland Rail's ability to exercise monopoly power (section 4.4). This indicates that the possibility of declaration cannot be relied upon to constrain Queensland Rail in its dealings with access seekers as effectively as for DBCT Management.

The QCA considers that the threat of declaration, on its own, would not mitigate the risk of 'hold-up' for access seekers at the time of contract renewal. The risk of hold-up for an access seeker at the time of contract renewal is unlikely to be alleviated by the knowledge that it can apply for declaration should Queensland Rail seek to propose price increases, within the

[192] Glencore, sub. 41, pp. 19–20.
[193] See Queensland Rail, sub. 33, p. 32, footnote 113; Pacific National, sub. 37, p. 12, footnote 11.
[194] See s. 13A of the QCA Act.

boundaries set out in the access framework. The risk of hold-up for an access seeker remains, with the access seeker deterred from utilising Queensland Rail's services.[195]

In the case of DBCT Management, the QCA has found that the threat of declaration combined with the deed poll and access framework is sufficient to constrain DBCT Management from exercising market power in a manner that would materially impact competitive conditions in a dependent market. The QCA is not similarly satisfied in relation to Queensland Rail, as the QCA has found that the DBCT Management deed poll and access framework deliver a degree of certainty around access charges which is lacking in the Queensland Rail deed poll and access framework.

Both of these conclusions involve judgments about the extent to which the service provider is likely to be constrained by the threat of declaration in the context of the access arrangements they have put in place, and the extent to which this can be expected to curtail its ability and incentive to exercise market power. Taking into account the differences between the deed polls and access frameworks offered by DBCT Management and Queensland Rail, and the circumstances in which they were provided, the QCA is satisfied that the threat of declaration can be relied upon to constrain DBCT Management more effectively than it can for Queensland Rail.

Dependent markets are already effectively competitive

Queensland Rail submitted that key relevant dependent markets are already competitive, and that it is well established that if a dependent market is effectively competitive, access as a result of declaration is unlikely to promote a material increase in competition:

> As noted in paragraph 103 above, it is well accepted that criterion (a) has no application to a dependent market that is workably or effectively competitive …
>
> Although Queensland Rail does not consider that it is necessary to definitively define dependent markets for the purposes of criterion (a) in this instance, Queensland Rail notes that key relevant dependent markets are effectively competitive, and would be with and without declaration such that there can be no material increase in competition as a result of declaration. For example, it is accepted that coal is an internationally traded commodity with prices set by reference to international spot prices. Similarly, sugar is an internationally traded product, with the returns to sugar producers in Australia (predominantly in Queensland) determined primarily by the world futures prices for sugar. Declaration of Queensland Rail's services cannot be said to have affected the level of competition in those markets to date and thus the accepted approach of concluding that criterion (a) cannot be met where dependent markets are effectively competitive should be applied.[196]

In response to Queensland Rail's reference to global coal markets, the South West Producers said:

> As discussed in their last submission, the South West Producers continue to consider it is clear that (consistent with market realities, and judicial and regulatory precedent discussed in detail in previous submissions) there are in fact a number of other dependent markets distinct from such coal markets [global thermal coal markets].

[195] Any impacts on investment decisions in dependent markets as a result of the risk of hold-up will materialise prior to Queensland Rail potentially engaging in conduct that warrants a declaration application.

[196] Queensland Rail, sub. 8, p. 5, paras 28, 32; sub. 33, pp. 46–47, paras 224–25.

> Critically, the question which falls to be answered under criterion (a) is not whether declaration would promote a material increase in competition in the thermal coal market, but whether it would promote a material increase in competition in *any* dependent market.[197]

The QCA notes that there may be a number of dependent markets in which access (or increased access) to the service as a result of declaration may not promote a material increase in competition. However, criterion (a) is satisfied if access (or increased access) to the service as a result of declaration would promote a material increase in competition in *at least one market*, other than the market for the service.

5.5.4 Conclusions on Queensland Rail's ability and incentive to exercise market power

The QCA considers that Queensland Rail has the ability and incentive to exercise market power in a way that may adversely affect competition in the dependent above-rail freight haulage market in a future without declaration.

This prompts the question of whether competition would be adversely affected if Queensland Rail exercised this market power. For criterion (a) to be satisfied, the QCA must be satisfied that access (or increased access), on reasonable terms and conditions, as a result of a declaration of the service would promote a material increase in competition in at least one dependent market.

Therefore, the following sections contain a detailed analysis of the state of competition in the above-rail freight haulage market in a future with and without declaration.

5.6 Competition in the above-rail freight haulage market in a future with and without declaration

5.6.1 A future with declaration

The QCA considers that a future with declaration will continue to provide for access to the rail network on reasonable terms and conditions due to ongoing regulatory oversight. The regulatory regime under Part 5 of the QCA Act is intended to take into account the interests of the access provider and access seekers/users, while providing an effective constraint on Queensland Rail's ability and incentive to exercise market power in a way that may adversely affect competition in dependent markets.

The QCA considers that the protections given by the regulatory framework are an effective long-term constraint on Queensland Rail's market power. In particular, the regulatory regime in a future with declaration would be able to provide assurance and certainty to access seekers and users that Queensland Rail's services will be provided on reasonable terms and conditions and there is a statutory process within which terms and conditions of access can be negotiated (including to address sunk investments). Additionally, declaration can maintain an appropriate balance between the legitimate interests of the service provider and access seekers/users in the presence of sunk investments, and mitigate the risk of hold-up for access seekers. Mitigating the risk of hold-up for access seekers is likely to be a critical factor in supporting efficient entry to and efficient participation in the above-rail freight haulage market, thereby materially promoting competition (the QCA's approach to the concept of materiality is discussed in section 5.6.4 below).[198]

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[197] South West Producers, sub. 40, p. 16.

[198] Efficient participation in the market includes actions undertaken by incumbent market participants, such as investing in operational efficiencies and innovations, as well as re-investment into the market at the time of contract renewal.

5.6.2 A future without declaration: the hold-up problem

Overview of the hold-up problem

As a business, Queensland Rail has an incentive to maximise profits. In a future with declaration, its ability and incentive to exercise its market power in order to maximise profits will be constrained by the regulatory regime. In a future without declaration, the QCA considers that Queensland Rail will not face any effective long-term constraints on its ability and incentive to exercise market power in order to maximise profits. In particular, the QCA considers that the access arrangements applied by Queensland Rail will not act as an effective constraint.

It is in this environment that market participants will face decisions to enter or operate in the above-rail freight haulage market on the North Coast Route in a future without declaration. In particular, a new entrant to the above-rail freight haulage market will have to incur significant sunk costs. These include investments in physical assets, such as long-life rollingstock assets (which typically have a 20- to 25-year life)[199] and the associated maintenance and provisioning facilities, as well as ongoing investments in innovation to improve the competitiveness of the service offering of the firm against other competitors in the market.[200] Given the specific operational characteristics of the North Coast Route, such as a narrow-gauge track with specific tonne axle loads, such assets cannot readily be switched to alternative uses elsewhere. The presence of sunk, transaction-specific investments gives rise to the 'hold-up problem', commonly described in the economics literature on natural monopoly regulation:

> The basic story is as follows: the users of a monopoly firm routinely have the opportunity to take some irreversible action which will significantly increase the value of or demand for the monopolist's products or services. The users or consumers, however, fear that once they have taken that action and incurred the associated sunk cost, the monopolist will engage in "ex post opportunism" – raising the price for the monopolist service, expropriating the additional benefit or value achieved. Fearing this expropriation, the users or consumers are reluctant to put themselves in a position where they can be exploited by the monopolist. As a result, they fail to take socially efficient actions, or they take other actions which are less socially beneficial, but with lower risk of expropriation. The failure to take efficient actions results in a material economic welfare loss.[201]

The QCA has identified that the most likely circumstance for Queensland Rail to exercise market power after an investment has been made is at the contract renewal stage. Specifically, if an access seeker decides to enter (or to expand its operations in) the market, it will incur significant sunk costs through the need to invest in long-life rollingstock assets. The 20–25-year useful life of rollingstock can be contrasted with the typical length of a below-rail access agreement of around 10 years.[202] Therefore, at some point during the useful life of the rollingstock, it would be expected that the below-rail access agreement will be due for renewal. Below-rail access agreements with Queensland Rail have historically not contained evergreen

[199] See, for example, Glencore, sub. 5, p. 13; South West Producers, sub. 16, p. 14; QRC, sub. 7, p. 19; Watco, sub. 48, p. 4; GrainCorp, sub. 52, p. 6.

[200] Pacific National (sub. 37, p. 5) gives the example of investments in innovations by competing above-rail operators, including the introduction of electronically controlled pneumatic braking, increased locomotive power, safer operation of over-length trains and innovation in the design and configuration of train consists.

[201] D Biggar, 'Is protecting sunk investments by consumers a key rationale for natural monopoly regulation?', *Review of Network Economics*, vol. 8, no. 2, 2009, p. 13.

[202] See for example, QRC, sub. 7, p. 19; Watco, sub. 49, p. 1.

renewal clauses (see section 5.4.5).[203] This means that any terms contained in the original access agreement (entered into in the first period) may not necessarily be replicated in the new access agreement. Therefore, when the below-rail access agreement is due for renewal, in subsequent periods after the above-rail operator has entered the market, the above-rail operator would be in a less favourable bargaining position relative to Queensland Rail, as it has made significant sunk investments in rollingstock assets that are not readily used elsewhere.[204]

In these subsequent periods, an exercise of market power by Queensland Rail against an above-rail operator may arguably be regarded as a transfer of wealth between the parties, with little impact on competition. However, the QCA considers that the critical issue is that in the first period, the above-rail operator can foresee this risk that any sunk investments it makes in the first period will be exposed to the risk of expropriation by the monopolist in subsequent periods. The QCA considers that this risk is sufficiently material that an efficient potential entrant will likely be deterred from entering the market in the first place. In this context, the Queensland Resources Council stated:

> [O]ne needs to understand that, in order to produce or extract a commodity like coal, this requires a major sunk investment in mining equipment and infrastructure. These sunk investments give rise to what are known as "quasi-rent" which are subject to the threat of hold-up. The threat of expropriation of rents by a monopoly service provider in such a situation would only in extreme circumstances result in a pure transfer. More likely, even the threat of such expropriation can limit future investment and innovation by the upstream firms'.[205]

The prospect of Queensland Rail exercising its market power in future contracting periods creates a significant degree of uncertainty for potential market participants at the time they are considering investment, raising the hurdle rate required to justify the investment and potentially deterring efficient entry, investment and participation in the market. Furthermore, all market participants are exposed to this risk in a future without declaration: incumbent operators also face increased risk and uncertainty at the time of their contract renewals, due to the absence of evergreen renewal rights. This may undermine incentives for future efficient actions by those operators compared to the situation with declaration.[206] These circumstances impact the environment in which access seekers will make an investment.

The presence of this risk of hold-up means that socially optimal investments will not proceed, or there will be an underinvestment. Queensland Rail may have an incentive to solve this hold-up problem ex ante—for example, it may be profit maximising for Queensland Rail to sell unused network capacity to new or renewing users, assuming it is not constrained to charging a uniform price.[207] However, as will be discussed below, the QCA's view is that it will be difficult for Queensland Rail to credibly commit ex ante to solve the hold-up problem (for example through

[203] In the absence of information to the contrary, the QCA has proceeded on the basis that this practice is likely to continue in the future, that is, that below-rail access agreements in the future are likely to also not contain evergreen renewal clauses.

[204] An argument may be made that Queensland Rail would also have made sunk investments, for example in improvements or expansions to the below-rail infrastructure to accommodate the above-rail operator's needs. However, the QCA considers that Queensland Rail may be able to offer use of its below-rail infrastructure to another above-rail operator (e.g. a competitor operator), whereas the above-rail operator may face greater difficulties in attempting to find an alternative use for its narrow-gauge rollingstock.

[205] QRC, sub. 20, p. 14.

[206] Pacific National, sub. 9, pp. 6–7.

[207] Under the 2016 access undertaking, Queensland Rail is not required to charge a uniform price on the North Coast Line or any other system except for West Moreton, where there is a reference tariff for coal trains. On the non-West Moreton systems, prices are negotiated between Queensland Rail and the customers seeking below-rail access.

a long-term contract). For instance, events could develop in the future where the benefits to Queensland Rail of expropriating the value of the investment at that later time exceeds the benefits of continuing to abide by status quo arrangements. The QCA considers that it is this risk—that significant sunk investments in rollingstock made by the above-rail operator will be expropriated—that will lead to a material adverse effect on competition in the above-rail haulage market in a future without declaration.

In contrast, the QCA considers that the access regime that would apply in a future with declaration is an effective long-term constraint on Queensland Rail's ability and incentive to exercise market power. Access (or increased access), on reasonable terms and conditions, as a result of declaration would materially improve the environment for competition by encouraging efficient entry and actions (through a stable and predictable environment[208]). Such an environment would in turn promote a material increase in competition in the above-rail freight haulage market on the North Coast Route (the QCA's approach to materiality is discussed below in section 5.6.4).

A further discussion of the economic theory of hold-up is in Appendix A.

Stakeholder submissions

Users of the Queensland Rail service generally supported the QCA's analysis in the draft recommendation of the hold-up problem. In relation to the North Coast Route service, Pacific National stated:

> QR's submissions on criterion (a) largely ignore the risk of hold-up due to the large, long-lived and sunk nature of users' investments. This is a key reason why ongoing declaration and regulation of access will promote competition …
>
> The risk of hold-up is illustrated by the circumstances facing PN. PN has invested well over $1 billion in above rail infrastructure in Queensland. Much of this infrastructure has very long lives and only recently deployed …
>
> Rail investment is largely sunk, most of the infrastructure could not be deployed elsewhere if PN were to cease operating in Queensland. This is primarily because rollingstock is configured for electric infrastructure (which is unique to Queensland) and a narrow gauge track which is not widely deployed in Australia. Consequently, PN is in a very weak bargaining position when seeking to re-negotiate the terms of access with a monopoly supplier such as QR.[209]

Queensland Rail disagreed with the QCA's analysis in the draft recommendation of the hold-up problem, and argued that 'there is no two-period hold-up problem arising in respect of Queensland Rail's services provided using the North Coast Line, Mount Isa Line and West Moreton System'.[210] These submissions are considered in detail below.

5.6.3 Queensland Rail's submission that there is no hold-up problem

In response to the QCA's analysis of the hold-up problem in the draft recommendation, Queensland Rail argued that there is no hold-up problem arising in respect of Queensland Rail's services:

> The HoustonKemp Expert Report describes why there is no two-period hold-up problem arising in respect of Queensland Rail's services provided using the North Coast Line, Mount Isa Line and West Moreton System. The reasons include that:

[208] For example, the access regime in the QCA Act is transparent and can only be modified by parliament.
[209] Pacific National, sub. 37, pp. 8–9.
[210] Queensland Rail, sub. 33, pp. 38–39, paras 190–92.

(1) users can (and do) negotiate longer term contracts where required; and

(2) Queensland Rail does not have an incentive to take advantage of users in the second round of negotiations given Queensland Rail is involved in multiple rounds of negotiations with multiple users. Taking advantage of users in second round negotiations would give rise to reputational damage, which would in turn erode Queensland Rail's financial viability.

As outlined by HoustonKemp, if the two-period hold-up problem described by the QCA did exist, it would arise under the current regulatory arrangements. Given the revenues resulting from Queensland Rail's access prices are well below the ceiling limits, Queensland Rail could, if it had the ability and incentive to do so, increase prices in the second round under the current regulatory arrangements. It does not do so.[211]

The HoustonKemp report discussed the points raised by Queensland Rail under three categories:

In summary:

- contracting is a solution to the hold-up problem – Queensland Rail has a strong financial incentive to negotiate contracts that are acceptable to access seekers;
- Queensland Rail is in a 'multi-round' negotiation – extorting access seekers/holders would likely damage Queensland Rail's reputation, thereby reducing its long run financial viability; and
- even if the hold-up problem does exist, existing regulation provides limited protection to consumers and it is not clear if price regulation is an effective or efficient solution.[212]

The QCA considers each of these points below.

Contractual solutions to hold-up

Queensland Rail submissions

HoustonKemp argued that there is a mutual incentive for Queensland Rail and access seekers to agree to a contract:

One obvious solution to the hold-up problem would be to sign contracts with terms and conditions that meet the needs of the access seeker, e.g. duration of the contract and options for renewal.

As discussed above, Queensland Rail has a strong incentive to maximise throughput, and so increase the volume on its network, given that it has spare capacity. Put another way, Queensland Rail has an incentive to avoid the hold-up problem. Similarly, access seekers that believe there could be a hold-up problem also have an incentive to mitigate the hold-up problem.

It follows that there is a mutual incentive for Queensland Rail and the access holder to negotiate an access agreement that is acceptable to both parties, regardless of Queensland Rail's declaration status.[213]

Long-term contracts

Queensland Rail argued that, in a future without declaration, the hold-up problem could be alleviated by the signing of long-term contracts between itself and an access seeker. For example, given that the useful life of rollingstock is typically 20 years (or more), an above-rail operator could enter into a 20-year contract, which matches the useful life of the rollingstock.

[211] Queensland Rail, sub. 33, p. 39, paras 191–92.
[212] Queensland Rail, sub. 33, attachment B, p. 14.
[213] Queensland Rail, sub. 33, attachment B, p. 13.

The QCA considers that while such contracts may be suitable in theory, long-term contracts (i.e. with terms that match the asset lives) are not commonly observed in practice, as it is difficult to write a complete contract for such a long period of time. For example, Biggar noted:

> Finally, a monopolist might seek to prevent the hold-up problem by committing itself through a long-term contract … But long-term contracts have their own problems. To begin with, negotiating a long-term contract is costly, so the transactions costs are high, particularly when there are a large number of buyers. In the long-run, the costs and demand facing the monopolist may vary significantly, according to factors which cannot be foreseen at the time the contract was signed. It is impossible to negotiate and specify actions to be taken in every possible future contingency – long-term contracts are inevitably incomplete.[214]

In addition, Crocker and Masten noted:

> Although parties will design contracts to balance the need for adaptation with the cost of effecting adjustments, the ability to define precise obligations in response to changing events in ways that can be enforced at low cost means that contracts will, on the one hand, tend to be inflexible and, on the other, leave considerable opportunity to cheat on the agreement or to attempt to evade performance.[215]

The QCA considers that in practice, long-term contracts (of the type described above) are unlikely to be an effective solution to the hold-up problem due to their incompleteness and complexity. Specifically, complete contracting is unlikely, due to the inherent uncertainty about the circumstances that may prevail after the contract is entered into. In a world with uncertainty, writing a complete contract would require extensive consideration of all relevant contingencies, as well as detailed negotiations with the transacting party about the distribution of value for each contingency. As a result, writing such a complete contract would likely be prohibitively costly.[216] Moreover, due to the very low probability of most contingencies, such an exercise would likely not be cost-effective.

For example, the Australian Freight Rail Operators' Group, in a submission to the Productivity Commission, noted the implications of long-term contracts for an above-rail operator in seeking access to rail infrastructure:

> One option would be to lock in infrastructure charges through a very long-term contract. However, there are a number of obvious problems with this approach. To begin with, devising such a contract when the long term prospects for rail are so uncertain poses substantial difficulties. Additionally, the above-rail operator entering into such a contract would be exposed to the risk that better terms would be offered to its competitors in later periods, a risk that MFN [most favoured nation] clauses can help address, but not fully offset. Finally, the experience of above-rail operators is that it is difficult to secure such contracts on reasonable terms with government-owned entities.[217]

In addition, the South West Producers noted:

> Rail access with long term take or pay components is not something coal producers can commit to for a term that would prevent the hold-up problem – which would effectively need to be a

[214] D Biggar, 'Is protecting sunk investments by consumers a key rationale for natural monopoly regulation?', *Review of Network Economics*, vol. 8, no. 2, 2009, p. 19.

[215] Crocker, KJ & Masten, SE, 'Regulation and administered contracts revisited: Lessons from transaction-cost economics for public utility regulation', *Journal of Regulatory Economics*, vol. 9, no. 1, 1996, pp. 5–39.

[216] If a contract is 'complete', then it will never require revision, and enforcement is always possible. In particular, the contract specifies all possible contingencies. As a complete contract contains no gaps or missing contingencies, it would perfectly govern the exchange between parties as circumstances unfolded over time.

[217] Freight Rail Operators' Group, submission to the Productivity Commission, *Road and Rail Freight Infrastructure Pricing*, 1 November 2006, accessed 9 August 2019, https://www.pc.gov.au/inquiries/completed/freight/submissions/freight_rail_operators_group_/subdd086.pdf.

> whole of mine life contract. Issues as varied as natural disasters, thermal coal prices, foreign exchange rates, Australia or international climate policies, trade or tariff policies of key Asian export destinations, Australian environmental, taxation, royalties or industrial relations mean that contracts for more than 10 year terms impose significant risk on the coal producer either:
>
> (a) having a shorter than anticipated mine life – so that the producer would have a substantial 'take or pay tail' of liability trailing after any decision to cease production; or
>
> (b) having a longer than anticipated mine life – so that the producer would be exposed to the two period economic hold-up problem anyway despite trying to resolve it with a longer term contract.
>
> …
>
> QR also has no incentives to provide renewal rights (other than at significant cost to the user) as by doing so it is thereby quarantining capacity which could otherwise be contracted by other users.[218]

The QCA considers that a long-term contract could not anticipate every possible contingency, nor is it necessarily efficient for it to do so. Fundamentally, there is a tension between devising a contract structure that enables parties to adapt to uncertainties that eventuate in order to realise potential gains ('flexibility'), and devising one that at the same time reduces the scope for rent-dissipating efforts to redistribute existing value ('opportunism'). The longer the contract required, as in the case with long-lived sunk investments, the greater the need to allow for adaptation and adjustment in the face of changing market conditions. Relevantly, in commercial practice, there are few examples of long-term contracts being agreed between suppliers and users, and these tend to reflect special circumstances.[219] In particular, it is difficult to entirely eliminate the need for contract renegotiation in the context of a very long-term contract.

In the current situation, if the agreed (incomplete) contract needs to be renegotiated at a time in the future without declaration, the QCA considers that Queensland Rail will have the superior bargaining position, and the above-rail operator may be exposed to the risk of expropriation. While Queensland Rail could choose not to exercise this bargaining power ex post, it does not seem possible for Queensland Rail to credibly commit ex ante that it will not do so at that later time. For example, it does not seem that Queensland Rail would be able to credibly commit ex ante (e.g. at the time of signing a 20-year contract) that firstly, such a long-term contract will never need to be renegotiated during its term[220]; and secondly, that if such a renegotiation occurs, it would not expropriate investment value from the other negotiating party at that future time.

The problem is that events could develop in the future where the benefits to Queensland Rail of expropriating the value of an investment at that later time exceed the benefits of continuing to abide by the status quo arrangements. The QCA considers that it is this risk—that significant sunk investments in rollingstock made by the above-rail operator will be expropriated—that will lead to a material adverse effect on competition in the above-rail freight haulage market in a future without declaration. For example, existing customers or potential entrants into a market might either delay, or forgo, new investment that would otherwise be economically efficient.

[218] South West Producers, sub. 40, pp. 21–22.

[219] Coal supply contracts between mine-mouth electric utilities in the United States and adjacent coal mines tend to have long terms (e.g. 35 years), but they are complex contracts and some of them have renegotiation provisions. See Joskow, P, 'Vertical integration and long-term contracts: the case of coal-burning electric generating plants', *Journal of Law, Economics and Organization*, vol. 1, no. 1, 1985, pp. 33–80.

[220] Noting that renegotiation may occur at the request of either, or both parties.

Additionally, stakeholders might expend considerable time and costs engaging in otherwise wasteful and inefficient activities in trying to protect their share of investment value.

In a future with declaration, the supporting regulatory structure would enable independent regulatory oversight in relation to material price and non-price terms. The QCA considers that this oversight would be sufficient to constrain Queensland Rail's ability and incentive to exercise market power. These protections offered in a future with declaration would materially improve the environment for competition by encouraging efficient entry and actions (through a stable and predictable environment), which would in turn promote a material increase in competition in the above-rail freight haulage market on the North Coast Route.

A further discussion of the economic theory of long-term contracts in the context of the hold-up issue is in Appendix A.

Reputational damage

Queensland Rail submissions

HoustonKemp argued that Queensland Rail does not have an incentive to take advantage of market power in the subsequent rounds of negotiations due to the risk of reputational damage:

> The notion that expropriating sunk costs can damage an access provider financially is supported by the Productivity Commission (PC) in its inquiry report into the Electricity Network Regulatory Framework ...
>
> In other words, by developing a 'bad brand image' through expropriating the sunk costs of small users, a network business risks losing future revenue. As a result, it is in the best interests of a network business to maintain a 'positive image' and not seek to expropriate sunk costs.
>
> This logic can be applied to the situation faced by Queensland Rail. If Queensland Rail chose to expropriate the sunk costs of access seekers or access holders, its reputation would be damaged and thus future access seekers or users would be less willing to sign a contract with Queensland Rail. Given the long-lived nature of Queensland Rail's network, this could result in stranded assets where access revenue no longer covers the incremental cost of keeping the system open.[221]

In contrast, Pacific National argued that:

> PN does not consider that a monopolist should be left unregulated, on the basis that it might be expected to self-regulate its behaviour to avoid reputational damage. Economic theory and experience tell us the risk of reputational damage will not constrain a monopolist's behaviour. Rather, a monopolist will act on its incentive and ability to exploit its market power.[222]

HoustonKemp contended that in a future without declaration, Queensland Rail's incentives to exercise its market power to hold up its customers would be constrained by potential, adverse reputational effects. Given Queensland Rail would likely be entering into negotiations with multiple access seekers over time, such negotiating tactics would damage its long-run financial viability. The flow-on effects would likely undermine the investment incentives of existing users and reduce the entry of new users.[223]

The QCA's view is that there are two broad issues to be discussed in considering the effectiveness of the reputational mechanism (i.e. a firm's desire to maintain a good reputation) in constraining Queensland Rail's ability and incentive to exercise market power. These issues are:

[221] Queensland Rail, sub. 33, attachment B, p. 14.
[222] Pacific National, sub. 37, p. 12.
[223] Queensland Rail, sub. 33, attachment B, p. 13.

- a firm's incentive to maintain a good reputation depends on a cost-benefit analysis—this analysis is a dynamic exercise, which may yield different incentives over time
- the operation of the reputation mechanism, which depends on the availability of information.

The benefits and costs of maintaining a good reputation

At the time of renewal of an access agreement in a future without declaration, Queensland Rail may face an opportunity to maximise its profits by exercising its market power to expropriate the value of a customer's investment. As with many commercial decisions, whether such a decision will be made is likely to depend on an analysis of the benefits of undertaking the expropriation compared to the costs of doing so.

The risk of reputational damage is one of a range of costs that a firm is likely to consider in making a decision.[224] In general, the cost of reputational damage may be characterised as consisting of two parts:

- *future losses from termination of the specific relationship*—given the transaction-specific capital in a relationship, terminating the relationship means the potential loss of the discounted value of the (future) quasi-rents from the investments already made[225]
- *future losses from general foregone business due to reputational damage*—the transactor perpetrating hold-up will confront higher costs of doing business in the future as future transacting partners will demand more favourable and explicit contract terms, or a future transactor may not enter the market altogether.[226]

A firm would consider these costs in the context of the benefits that may be gained from undertaking an expropriation (e.g. the additional profits to be gained). If the overall benefits of expropriating the investment exceed the overall costs at that time, including the costs of reputational damage, then the firm would have an incentive to expropriate value from the investment.

Moreover, this cost–benefit analysis is a dynamic exercise. Over time, as long as the expected costs of the hold-up (including the costs of reputational damage) exceed the expected benefits (e.g. profits), Queensland Rail is unlikely to seek to expropriate a user's investment. However, changes in market conditions and firm-specific factors may arise in the future, which could cause the expected benefits of hold-up to exceed its costs (including the costs of reputational damage). Expropriation of the customer's investments may then be the appropriate business decision.

In particular, in the case of the above-rail operators accessing Queensland Rail's service, the significant sunk investment in long-life rollingstock means that their commercial relationship with Queensland Rail is likely to be long-term (e.g. 20 years or more). Such long time frames result in inherent uncertainties over future developments, and increases the chance that circumstances will develop that may result in the benefits of hold-up for Queensland Rail exceeding its costs. Given the long time frames involved in the above-rail freight haulage market, the QCA considers that Queensland Rail cannot credibly commit ex ante that the risk of

[224] Other costs may include, for example, legal costs associated with settling a dispute raised by the customer.
[225] That is, the customer whose investment is being expropriated may decide to exit the market and terminate the relationship altogether. Any future benefits from this specific relationship are thus foregone.
[226] That is, future customers may be reluctant to enter the market if they see that other customers were held up in the past.

damage to its reputation will always serve as a sufficient constraint on its ability to exercise market power to expropriate any investment ex post—that is, that the costs of reputational damage will always be greater than the benefits.

Events that are not foreseeable at present may develop in the future, so that the benefits from expropriation exceed the costs (including the costs of reputational damage). The QCA considers that it is this risk that significant sunk investments in rollingstock made by the above-rail operator will be expropriated—a risk foreseeable to potential market entrants—that will lead to a material adverse effect on competition in the above-rail freight haulage market in a future without declaration.

In contrast, in a future with declaration, the QCA considers that the supporting regulatory structure would be sufficient to constrain Queensland Rail's ability and incentive to exercise market power to expropriate the value of a customer's investment. In turn, this will provide assurance to customers seeking to enter (or re-invest in) the market that their investment will not be exposed to the risk of hold-up, thereby materially improving the environment for competition by encouraging efficient market entry and investment.

The availability of information

A well-functioning and effective reputation mechanism depends on sufficient and available information on the firm's performance. Such mechanisms are most commonly associated with markets that feature repeated and frequent transactions. However, transactions between an above-rail operator and Queensland Rail (i.e. the signing of a contract for access) are infrequent and are spread across time. As a result, the 'repeat' purchase feature that is characteristic of markets with effective reputation mechanisms is not present.

Additionally, given these transactions are not contemporaneous (i.e. it is rare that two above-rail operators would be seeking to sign/renew their contract with Queensland Rail at the same time), it is less likely that firms learn from other firms about 'bad behaviour' on the part of Queensland Rail.

In a future without declaration, access seekers are unlikely to have transparency of certain access terms provided to other access seekers, including pricing terms. Rather, Queensland Rail would bilaterally negotiate with individual customers within the terms of the access framework. The QCA's view is that in such circumstances it would not be in the commercial interests of Queensland Rail to share information, particularly if it has exercised or is intending to exercise market power against a customer, as to share such information would be damaging to its reputation. Indeed, it may be that the publication of certain information, such as commercial terms, is contractually prohibited. In circumstances where there is limited availability of information, the QCA considers that the threat of reputational damage is not an effective constraint on Queensland Rail's ability and incentive to exercise market power.

In any case, notwithstanding the availability of information in a future without declaration, the QCA nevertheless considers that the cost–benefit analysis outlined above applies. That is, circumstances could arise where the cost–benefit analysis results in Queensland Rail deciding to expropriate the investment of a customer, whether information-sharing was available (where the act will result in reputational damage) or not (where the act will not necessarily result in reputational damage).

In contrast, the regulatory regime under Part 5 of the QCA Act provides an effective negotiate–arbitrate framework that requires and facilitates the sharing of information. Additionally, this regulatory regime would be sufficient to constrain Queensland Rail's ability and incentive to exercise market power to expropriate the value of a customer's investment. The QCA considers

that these protections and certainties of access offered in a future with declaration would materially improve the environment for competition by encouraging efficient entry and actions (through a stable and predictable environment), which would in turn promote a material increase in competition in the above-rail freight haulage market on the North Coast Route.

A further discussion of the economic theory of reputation effects in the context of the hold-up issue is in Appendix A.

Existing regulation provides limited protections against hold-up

Queensland Rail submissions

Queensland Rail's consultant HoustonKemp argued that in any case, existing regulatory arrangements provide limited protection against the hold-up problem:

> We also note that existing regulatory arrangements provide limited protection against the hold-up problem, since Queensland Rail is currently allowed to increase prices in the 'second round' because its revenue is below the regulatory ceiling limit. Put another way, Queensland Rail can already impose significant increases in access charges under current arrangements, since the revenue it currently collects is far below the cost of providing rail services.
>
> The PC inquiry [Productivity Commission inquiry into the Electricity Network Regulatory Framework] points out that economic regulation is not a definitively effective means to prevent the hold-up problem … Put another way, even if there is a hold-up problem, it is not clear that price regulation would be an efficient or effective means of resolving it.[227]

Regulation as the second-best solution

The QCA notes that no revenue ceiling has been set, or verified by the QCA, for Queensland Rail's railway systems, with the exception of the West Moreton system.[228] In a future with declaration, there is no requirement under the QCA Act for there to be an approved reference tariff (or ceiling price) in relation to any of Queensland Rail's rail systems. Under the 2016 access undertaking, only coal users accessing the West Moreton system and Metropolitan system are subject to a reference tariff approved by the QCA. Users on all other systems, including the North Coast Line, gain access under the negotiate–arbitrate regime in the QCA Act, where access prices and non-price terms are negotiated with Queensland Rail. Thus, the existing regulatory arrangements do not rely solely on ceiling limits to constrain Queensland Rail's ability and incentive to exercise market power.

The QCA considers that access seekers will be in a less favourable negotiating position with Queensland Rail at the time of renegotiating access contracts in a future without declaration. That is, an access seeker will be susceptible to hold-up after it has committed to entering the market and has incurred considerable sunk costs.

The QCA Act expressly provides a means of addressing this negotiating power imbalance and includes overarching obligations, established by Part 5 of the QCA Act, which apply to Queensland Rail in a future with declaration. Relevantly, the presence of regulation does not necessarily mean direct intervention by the QCA to set prices. Rather, it provides an incentive for Queensland Rail to offer reasonable terms and conditions in order to avoid the process of arbitration, and it seeks to more appropriately balance the bargaining power of access seekers with the bargaining power of Queensland Rail, through the requirements for Queensland Rail to provide information and follow transparent processes. Moreover, it is open for the QCA to approve an access undertaking that outlines terms of access to address any negotiating power

[227] Queensland Rail, sub. 33, attachment B, p. 14.
[228] Queensland Rail, sub. 33, attachment B, p. 10, figure 3.1.

imbalance that exists between Queensland Rail and access seekers. Additionally, where an access seeker and Queensland Rail cannot agree on terms, either party may have recourse to a transparent arbitration regime established by the QCA Act. The QCA considers that the negotiate–arbitrate regime in the QCA Act is able to credibly constrain Queensland Rail's ability and incentive to exercise market power in a future with declaration, and thus support efficient entry to and efficient participation in the above-rail freight haulage market, thereby materially promoting competition.

The QCA analysis of the benefits of declaration is supported by stakeholders. For example, Glencore stated:

> By contrast, Glencore strongly supports the QCA's view that a third party access regime under Part 5 of the QCA Act would, in a future with declaration, provide a credible constraint on QR's [Queensland Rail's] use of market power.
>
> While there is no tariff for [the] Mount Isa Rail Access Service, that does not mean that declaration provides users of that service with no pricing protection (as QR and Houston Kemp appear to assert).
>
> To the contrary:
>
> (a) access seekers have a right to have the QCA arbitrate access disputes (including as to pricing); and
>
> (b) at each access undertaking renewal, users of the Mount Isa Rail Access [Service] have the potential to seek a reference tariff. Although Glencore has never sought a reference tariff, it has considered doing so in the past and strongly considers that the mere presence of that option provides a constraint on QR's behaviour.
>
> The right to have the QCA arbitrate access dispute[s] means that users have certainty that they have a right to obtain a reasonable and appropriate price where negotiations fail.[229]

The South West Producers agreed with Glencore, and said:

> Similarly, through the undertaking process, the terms of access QR offers (in its standard access agreement), and terms of the undertaking have become more favourable and appropriate than those proposed by QR. They provide a guaranteed reasonable position for obtaining access to all new entrants.
>
> Even for non-reference services, or disputes over non-pricing terms, the ability to have the QCA arbitrate access disputes is a critical constraint that removes the potential for exercise of monopoly power.[230]

Similarly, Watco stated:

> Declaration promotes long term access certainty on fair and reasonable terms, a right to have QCA arbitrate access disputes, efficient access pricing and the potential to have reference tariffs, which all promote competition in dependent markets, particularly in regional Queensland agricultural freight markets and above rail operations.[231]

The QCA considers that regulation is a second-best solution in circumstances where the conditions for effective competition are absent. Queensland Rail's status as a natural monopoly means that there are currently no credible market-based constraints on its ability and incentive to exercise market power. In these circumstances, appropriate regulation is needed to act as a constraint on its market power, in relation to both pricing and non-pricing terms.

[229] Glencore, sub. 41, p. 24.
[230] South West Producers, sub. 40, p. 39.
[231] Watco, sub. 48, p. 4.

HoustonKemp also noted that the Productivity Commission concluded that economic regulation is not a definitively effective means of preventing the hold-up problem in its 2013 report into electricity network regulation. The Productivity Commission suggested alternative solutions to the hold-up problem: ex post action based on common law breaches of the duty of good faith and fair dealing; specific competition laws; and ex ante oversight of particular long-term contracts that risk anti-competitive outcomes.[232]

The first two options appear to rely on ex post legal remedies. While these alternatives might provide some relief ex post, the problem here is that the 'damage is already done' with respect to dynamic efficiency. That is, once hold-up occurs, any adverse impacts on dynamic efficiency (e.g. delayed or foregone investment) would already have been realised. Therefore, these two options do not satisfactorily address possible dynamic efficiency concerns. The third option involving ex ante oversight of long-term contracts presumably involves (at least) regulatory monitoring of some type. However, it is not clear how a regulator would have visibility of private contracts in order to fulfil an effective monitoring role.

The QCA's view is that declaration, and the operation of the associated regulatory regime, is likely to be the more effective way to address hold-up concerns in Queensland Rail's circumstances.

5.6.4 Promote a material increase in competition

Materiality

Criterion (a) requires that access (or increased access) to the service, on reasonable terms and conditions, as a result of declaration would promote a *material increase* in competition in at least one market (emphasis added). In Queensland, the words 'material increase' were first introduced into criterion (a) by the *Motor Accident Insurance and Other Legislation Amendment Act 2010* (Qld). The explanatory notes to that Act state that the purpose of the amendment to criterion (a) was to:

> amend section 76(2)(a) to clarify that access (or increased access) to the service should be expected to promote a material increase in competition in order for this criterion to be satisfied. This will prevent the declaration of services where only a trivial increase in competition is expected to result …

Therefore, the QCA considers that the threshold of materiality will require a non-trivial increase in competition.

The QCA considers that the concept of promoting a material increase in competition involves an improvement in the opportunities and environment for competition, such that competitive outcomes are materially more likely to occur in a future with declaration, compared to a future without declaration. Promoting a material increase in competition is not necessarily equivalent to promoting the greatest number of competitors in the market—strong competition may exist between a few firms. Rather, it involves the possibility that efficient entry and efficient participation by firms would be promoted in a future with declaration, compared to a future without declaration. If efficient entry is likely to be promoted in a future with declaration (compared to a future without declaration), the QCA considers that this would indicate that access as a result of declaration would promote an increase in competition that is material. A

[232] Productivity Commission, *Electricity Network Regulatory Frameworks*, inquiry report no. 62, 2013, Appendix B, p. 6, https://www.pc.gov.au/inquiries/completed/electricity/report/27-electricity-appendixb.pdf.

detailed discussion of the literature and jurisprudence of criterion (a), as well as the QCA's approach to criterion (a), is in Overview—Chapter 2.

In the case of the North Coast Route service, the QCA considers that access (or increased access) to the service, on reasonable terms and conditions, as a result of declaration would promote a material increase in competition in the dependent above-rail freight haulage market.

A decision to enter (or re-invest in) the above-rail freight haulage market will involve substantial sunk investments. In a future without declaration, the presence of sunk investments gives rise to the hold-up problem. The QCA considers that the risk of hold-up in the presence of substantial sunk investments is sufficiently material that it is likely to discourage efficient firms from entering the market. In contrast, declaration and the associated access regime are able to credibly constrain Queensland Rail's ability and incentive to exercise market power and credibly address the hold-up risk.

The QCA considers that the credible constraint on the risk of hold-up in the presence of substantial sunk investments will promote a non-trivial, material improvement in the environment for competition in the above-rail freight haulage market on the North Coast Route. The environment for competition in a future with declaration is likely to promote efficient entry (and efficient investment) by all market participants, such that competitive outcomes in the above-rail freight haulage market are materially more likely to occur.

If efficient entry is likely to be promoted in a future with declaration (compared to a future without declaration), this would indicate that access as a result of declaration would promote an increase in competition that is material. In this way, the QCA is satisfied that access as a result of declaration would promote a material increase in competition in the above-rail freight haulage market on the North Coast Route.

Conclusion on the hold-up problem in the above-rail freight haulage market on the North Coast Route

In the case of the North Coast Route service, the QCA considers that the uncertainties facing market participants in a future without declaration would affect all participants across the market, including more efficient firms. Conversely, the certainties and protections offered by the access regime in a future with declaration would promote efficient entry and efficient participation in the dependent above-rail freight haulage market.

Several stakeholders made submissions to the effect that participants in the above-rail freight haulage market would face considerable uncertainties as to the terms of access in a future without declaration.[233] For instance, Pacific National warned that in a future without declaration:

> Queensland Rail would be incentivised to remove any pricing transparency around the cost of access to the network, increase access charges and reduce network service performance standards in a way that would be damaging to competition in downstream markets.
>
> In addition … access dispute mechanisms in Part 5 of the QCA Act [will no longer apply] and could result in QR using its monopoly position to negotiate pricing, terms and conditions.[234]

Pacific National also highlighted the benefits of declaration in its experience:

[233] For example, South West Producers, sub. 4, pp. 31–32; Glencore, sub. 5, p. 13; Pacific National, sub. 9, p. 12; Aurizon Coal, sub. 21, p. 2; Pacific National, sub. 37, pp. 8–9; Watco, sub. 48, pp. 2, 4–5; Linfox, sub. 50, para. 2.1; GrainCorp, sub. 52, pp. 6–7.

[234] Pacific National, sub. 9, p. 12.

> In this context, it will be important for the QCA to consider the benefits that declaration and the resultant competition has delivered. These extend well beyond simply constraining the exercise of market power and ensuring that a balanced risk profile underpins the setting of terms and conditions for access. Declaration has facilitated the introduction of important structural and behavioural constraints … and has underpinned the growth of competition in related upstream and downstream markets …[235]
>
> The experience of PN in Queensland over the last decade [in entering the Queensland above rail market] clearly demonstrates how declaration and regulation by the QCA has been effective in creating an environment in which the scope for rail freight competition can develop and grow. Put simply, PN's ability to grow its business in Queensland has been critically dependent on the stable operation of Queensland's regulatory framework under Part 5 of the QCA Act.[236]

The QCA considers that in a future without declaration, Queensland Rail will not face any effective long-term constraints on its ability and incentive to exercise market power in relation to access terms. In a future without declaration, there will be an imbalance of negotiating power between Queensland Rail and access seekers/users in the presence of sunk investments. The QCA acknowledges that commercial firms face a range of risks and uncertainties in decision-making on a daily basis. However, an imbalance in bargaining power could inhibit the ability of access seekers/users to effectively manage risks, including the risk of hold-up, which have a significant effect on the expected profitability of entry into (and operations within) the market. The presence of these risks, and an imbalance in the ability of access seekers/users to address these risks in a future without declaration, are likely to deter efficient entry or efficient investments by market participants.

In contrast, the QCA considers that a future with declaration provides a transparent statutory process under the QCA Act[237] within which terms and conditions of access can be negotiated. This process provides market participants with greater certainty that access will be provided on reasonable terms and conditions, including to address sunk investments and mitigate the risk of hold-up for access seekers. As such, the QCA considers that the protections offered by the access regime in a future with declaration will lead to a material improvement in the environment for competition in the above-rail freight haulage market, compared to a future without declaration.

5.7 Conclusion

The QCA considers that access (or increased access) to the North Coast Route service, on reasonable terms and conditions, as a result of declaration, would promote a material increase in competition in the dependent above-rail freight haulage market on the North Coast Route. This is because the opportunities and environment for competition in the above-rail freight haulage market will be materially enhanced in a future with declaration, given the constraints declaration imposes on Queensland Rail's ability and incentive to exercise market power, compared to a future without declaration.

The QCA considers that criterion (a) is satisfied in respect of the North Coast Route service, in relation to the dependent above-rail freight haulage market.

[235] Pacific National, sub. 9, p. 4; sub. 37, pp. 3–4.
[236] Pacific National, sub. 9, p. 6; sub. 37, p. 5.
[237] The provisions of the QCA Act can only be changed by parliament.

6 CRITERION (A)—THE MOUNT ISA ROUTE SERVICE

6.1 Part of the existing declared service and the dependent markets

The QCA has assessed the following part of the existing declared service and the following dependent market:

Table 4 The Mount Isa Route service and the dependent market

Dependent market	*Part of the existing declared service upon which the market is dependent*	*Facility for the relevant part of the service*
The North West Queensland minerals tenements market	Mount Isa Route service, that is use of the Mount Isa Route	Mount Isa Line Those parts of the North Coast Line that interconnect the Mount Isa Line and the Port of Townsville (together, the Mount Isa Route)

6.2 Geographical description of the Mount Isa Route

The Mount Isa Line extends from Mount Isa east to Stuart (approximately 10 km south of Townsville), and includes the Flynn to Phosphate Hill branch line. From Stuart, the Mount Isa Line joins the North Coast Line.[238] Access to the North Coast Line between Stuart and Townsville (an approximately 10 km section of track) allows users to access the Port of Townsville, from which most of the goods transported on the Mount Isa Line are exported.

6.3 Dependent markets

The QCA considers that relevant dependent markets of the Mount Isa Route service include:

- the North West Queensland minerals tenements market
- the above-rail freight haulage market on the Mount Isa Route
- the market for mining inputs in the North West Queensland minerals region.[239]

The QCA is satisfied that each of these relevant dependent markets are separate from the market for the service.

Queensland Rail did not comment on the identification of the North West Queensland minerals tenements market as a relevant dependent market, in its submission in response to the QCA's draft recommendation. Glencore supported the QCA's identification of the North West Queensland minerals tenements market as a relevant dependent market, saying:

> QR has not contested the existence of the North West Queensland minerals tenements market in any of its submission [sic].

[238] Queensland Rail, *Mount Isa System Information Pack*, October 2016, p. 5, https://www.queenslandrail.com.au/business/acccess/Documents/Mount%20Isa%20system%20information%20pack%20-%20Issue%203%20-%20October%202016.pdf.

[239] See also Glencore, sub. 5, p. 9; sub. 41, p. 13.

> However, for completeness Glencore reconfirms that it considers the QCA is correct there is clearly a separate market for North West Queensland minerals tenements, being tenements for non-coal minerals in what is commonly referred to as the North West Queensland minerals province …[240]

The QCA considers that one major relevant market dependent on the Mount Isa Route service is the North West Queensland minerals tenements market. Consequently, the analysis in this chapter focuses on this market. It may be the case that criterion (a) is also satisfied in relation to the other two dependent markets identified by the QCA. However, given the QCA's conclusions in relation to the North West Queensland minerals tenements market, detailed analyses are not included of other possible dependent markets in which criterion (a) may (or may not) be satisfied.

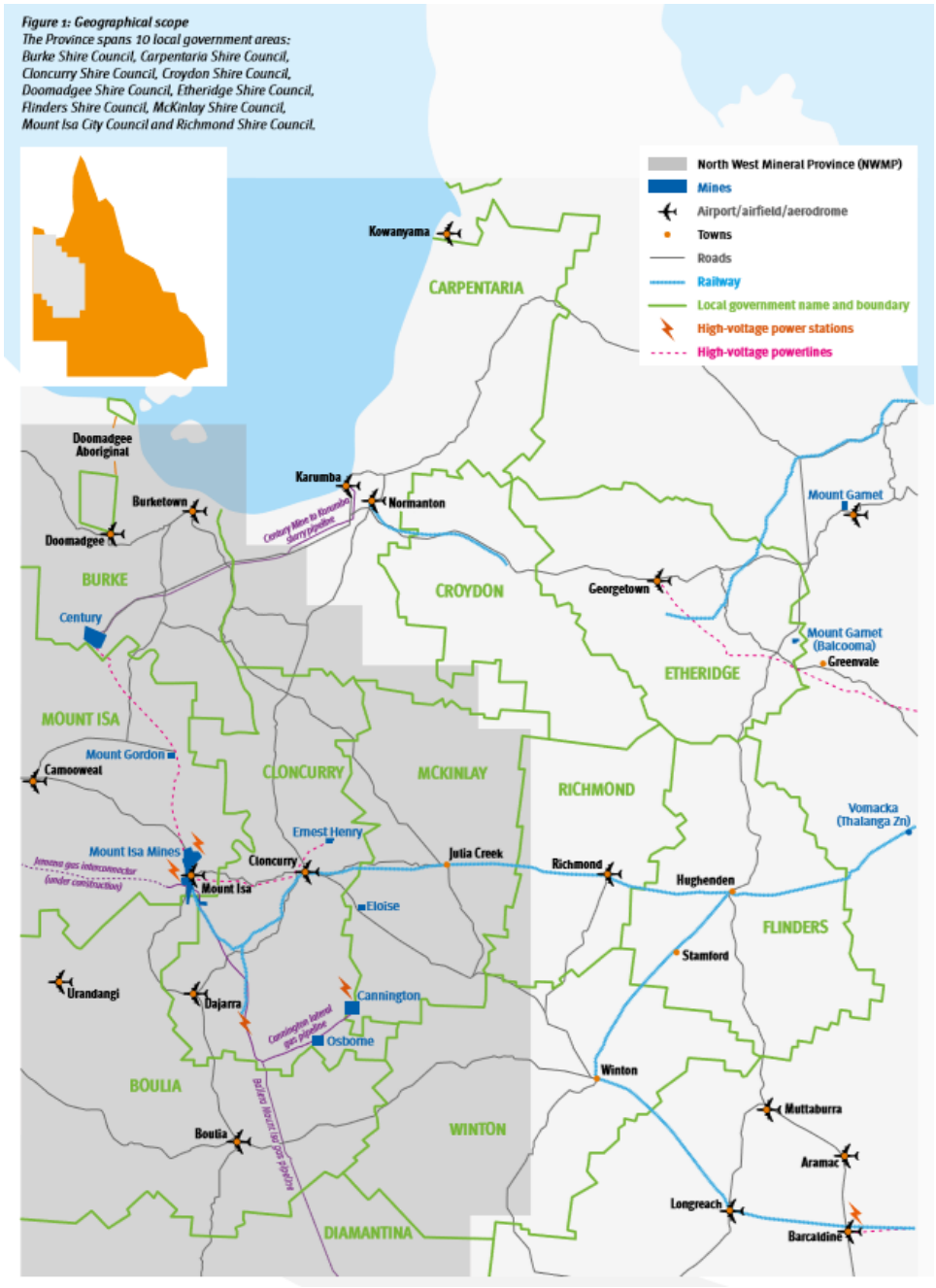
6.4 North West Queensland minerals tenements market

6.4.1 The market

The North West Minerals Province (NWMP) encompasses an area centred around Mount Isa in Queensland's north-west region, covering a land area of approximately 375,000 square kilometres (Figure 8).

[240] Glencore, sub. 41, p. 12.

Figure 8 The North West Minerals Province



Source: Department of State Development, Manufacturing, Infrastructure and Planning, A Strategic Blueprint for Queensland's North West Minerals Province, 2018.

The NWMP contains approximately 75 per cent of Queensland's base metal and minerals endowment, including copper, lead, zinc, silver, gold and phosphate deposits, and is recognised as a prospective area with the potential for further discoveries across a range of commodities.[241]

[241] Department of State Development, Manufacturing, Infrastructure and Planning, *A Strategic Blueprint for Queensland's North West Minerals Province*, Queensland Government, 2018, p. 5, https://www.statedevelopment.qld.gov.au/resources/plan/nwmp/nwmp-strategic-blueprint.pdf; Department of Natural Resources and Mines, *Annual exploration program 2017–18*, Queensland Government, 2017, p. 10,

A tenement is the right to carry out prospecting, exploration or mining activity in respect of a specific piece of land—a right created through licence issued by the state. Tenements are limited in time and area, with constraints on the ability of the tenement holder to tie up a tenement that it has no intention to develop. The tenement holder may also choose to sell part or all of its rights in the tenement to another party, including the rights to mine any deposits.

Within Queensland, three types of mining licences can be granted over any particular minerals tenement:

- an exploration permit for minerals, granted for up to five years—which permits the holder to use advanced exploration methods to determine the quantity and quality of minerals present
- a mineral development licence, granted for up to five years—which permits the holder to conduct geoscientific programs (e.g. drilling), mining feasibility studies and metallurgical testing to evaluate the development potential of the defined resource
- a mining lease, issued for a period depending on the identified reserves and projected mine life—which permits the holder to conduct larger scale mining operations.[242]

The QCA considers that there is a market for minerals tenements in the North West Queensland region encompassing the NWMP. The sellers in this market are the Queensland Government (through tender processes), and existing tenement holders who wish to sell their tenements. The buyers in this market are explorers, developers and producers of minerals who seek to acquire such tenements (these may be large established mining firms or smaller 'junior' miners and investors).[243]

Conceptually, the existence of a market for mining tenements has been recognised in the literature.[244] Stakeholders to this review have identified the existence of a market for minerals tenements in the North West Queensland region.[245] The QCA notes that in its concurrent review of the declaration of the DBCT service, the QCA has separately considered a market for exploration tenements and a market for development tenements (see Part C, Chapter 4). This was due to the detailed data provided to the QCA by stakeholders in relation to the DBCT service.

For the purposes of this analysis of the Queensland Rail service, the QCA does not consider that it is necessary to explore the distinction between the functional dimensions of the North West Queensland minerals tenement market. Moreover, stakeholders have not provided the detailed information in relation to the North West Queensland minerals tenements market that would enable the QCA to conduct such an analysis. For the purposes of this analysis, the QCA considers that the functional dimension of the North West Queensland minerals tenement market

https://www.dnrm.qld.gov.au/__data/assets/pdf_file/0008/1280474/annual-exploration-program-report-2017-18.pdf.

[242] Business Queensland, Mineral and coal authorities, 2018, https://www.business.qld.gov.au/industries/mining-energy-water/resources/minerals-coal/authorities-permits/applying/authorities.

[243] Glencore, sub. 5, p. 9; sub. 41, p. 13. For an example of tenement releases in the NWMP, see Department of Natural Resources and Mines, *Annual exploration program 2017–18*, 2017, pp. 10–11, accessed 2 July 2019, https://www.dnrme.qld.gov.au/__data/assets/pdf_file/0008/1280474/annual-exploration-program-report-2017-18.pdf.

[244] See for example *In the matter of Fortescue Metals Group Limited* [2010] ACompT 2; NCC, *Revocation of the declaration of the shipping channel service at the Port of Newcastle*, final recommendation, July 2019.

[245] Glencore, sub. 5, p. 9.

includes the market for all three types of mining authorities. Stakeholders have also adopted this approach of defining the market for mineral tenements.[246]

6.4.2 Entry into the market

The decision of a buyer to enter the North West Queensland minerals tenement market (e.g. to buy a tenement) is heavily dependent on their valuation modelling for the tenement, with regard to three primary factors:

- anticipated revenue
- mine operating costs
- infrastructure and logistics costs.[247]

Due to the relative remoteness of the NWMP region to the nearest export port (a distance of approximately 1,000 km from Mount Isa to the Port of Townsville), freight costs are likely to be high.[248] In particular, for a prospective buyer of a minerals tenement, the relative proportion of freight costs (both for mining inputs as well as mineral outputs) in comparison to likely revenue from the tenement is likely to be an important component of the overall decision-making process for acquiring the tenement.[249]

6.4.3 Relevant features of the current Mount Isa Route service

Two above-rail operators

The QCA understands that Pacific National and Aurizon Operations currently provide above-rail freight haulage services on the Mount Isa Route, accessing the below-rail service provided by Queensland Rail to haul end customers' products. Glencore's copper, zinc and lead businesses are the largest end users by volume on the Mount Isa Line, and Glencore's haulage task is undertaken by Pacific National.[250]

Structure of below-rail access agreements

In the Queensland bulk haulage industry, miners can (and do) enter directly into below-rail access agreements with the below-rail service provider (Queensland Rail).[251] The rights under those contracts are then allocated to that miner's nominated above-rail access provider.[252] The QCA understands that this contract structure may be suitable for miners with large volumes or a

[246] See Glencore, sub. 5, p. 9 (in relation to tenements for minerals) and South West Producers, sub. 4, pp. 20–21 (in relation to tenements for coal). Based on these submissions, the QCA is satisfied that there are clearly different markets for minerals tenements and coal tenements in Queensland. For the Mount Isa Route, the relevant dependent market is clearly the market for minerals tenements, as defined above.

[247] Glencore, sub. 5, p. 10.

[248] Under the 2016 access undertaking, there is no reference tariff for services on the Mount Isa Route. Below-rail access charges are negotiated between the access seeker and Queensland Rail. There is no publicly available data on the current below-rail access charges on the Mount Isa Route. Therefore, in the absence of stakeholder submissions, total freight costs for any particular user cannot be precisely quantified.

[249] Glencore, sub. 5, p. 10.

[250] Glencore, sub. 5, p. 4; Pacific National, sub. 37, p. 5; Glencore, submission to the QCA, *Queensland Rail's 2015 Draft Access Undertaking, draft decision*, December 2015, p. 1, https://www.qca.org.au/wp-content/uploads/2019/05/30170_Glencore-sub-on-2015-DAU-DD-Public_Redacted-1.pdf.

[251] A majority of third party access agreements on the CQCN are held by miners; the access agreements on the West Moreton system are also directly held by the two mines, Yancoal and New Hope. See QRC, sub. 7, p. 31; Aurizon Coal, sub. 21, p. 1.

[252] Contractually, the miners have the right to run trains on the below-rail network, but in a practical sense, an above-rail provider is engaged to run those trains on the miner's behalf. See QRC, sub. 7, p. 31.

portfolio of mines, who require certainty of train paths and can meet the volumes required consistently on an on-going basis.

Alternatively, an above-rail haulage provider can directly enter into access agreements with the below-rail service provider for the use of the below-rail service.[253] The above-rail haulage operator is then responsible for contracting with end users (e.g. miners) to haul their product. The QCA understands that this contract structure may be more suitable for miners with smaller or more variable volumes, who cannot guarantee haulage volumes (and train path usage) on a long-term basis.

In the absence of submissions, the QCA lacks information on the types of current contractual arrangements between miners and Queensland Rail on the Mount Isa Route. However, Glencore previously indicated that it negotiates directly with Queensland Rail regarding the below-rail price for its tonnages on the Mount Isa Route.[254] In the analysis below, where possible, the QCA considers both types of contract structures.

No evergreen renewal rights in access agreements

Typically, below-rail access agreements are for a 10-year period and mine life is approximately 25–30 years.[255] The QCA understands that below-rail access agreements with Queensland Rail on the Mount Isa Route do not include 'evergreen' renewal clauses. On expiry of existing agreements, a train operator or end customer would have to negotiate new terms of access within the bounds of an approved access undertaking. Therefore, existing terms under these agreements (e.g. in relation to pricing, capacity allocation or usage of facilities) will progressively expire, and existing terms will not necessarily be replicated in future agreements.

Under the current access regime (primarily regulated under Queensland Rail's Access Undertaking 1, 2016), use of the below-rail services on the Mount Isa Line are not subject to a QCA-approved reference tariff. Prices are individually negotiated with each user of the below-rail service, within the guidance of the pricing rules outlined in the 2016 Access Undertaking. Furthermore, the QCA Act allows all access seekers (as well as the access provider) to refer access disputes (including disputes regarding pricing) to the QCA for arbitration.[256] The access regime also provides for the approval of a reference tariff. Where approved, a reference tariff can facilitate access negotiations by providing a basis for the negotiation of access charges.

Spare capacity exists on the Mount Isa Line and the North Coast Line

Queensland Rail data shows that there is currently existing spare capacity on the Mount Isa Line and North Coast Line, and stakeholders commented that 'all of the projections [of future foreseeable demand] could be met by the existing capacity of the Mount Isa Line, specifically noting that the Mount Isa Line has sufficient capacity to meet the high demand forecast'.[257] The QCA considers the effect of spare capacity on Queensland Rail's ability and incentive to exercise market power in section 5.5.1.

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[253] Pacific National, sub. 37, p. 5.

[254] Glencore, sub. 41, p. 17; Glencore, submission to the QCA, *Queensland Rail's 2015 Draft Access Undertaking*, 5 June 2015, p. 3, https://www.qca.org.au/wp-content/uploads/2019/05/28099_Glencore-Submission-on-QR-2015-DAU-June-15-1.pdf.

[255] Glencore, sub. 5, p. 15; QRC, sub. 7, p. 19.

[256] See QCA Act, Part 5, division 5 (Access disputes about declared services) and s. 101.

[257] Glencore, sub. 5, p. 15; Queensland Rail, sub. 33, attachment B, p. 18; and Queensland Rail, sub. 33, attachment A, pp. 9–11 in respect of spare capacity on the North Coast Line.

6.5 Queensland Rail's ability and incentive to exercise market power

Whether access (or increased access) to the service, on reasonable terms and conditions, as a result of declaration would promote competition in the North West Queensland minerals tenements market depends firstly on whether Queensland Rail has market power that could be used to adversely affect competition in the dependent market; and secondly on whether Queensland Rail has an ability and incentive to exercise that market power, in a future without declaration.[258]

The QCA considers that as a business, Queensland Rail has an incentive to maximise profits. The QCA considers that Queensland Rail does have market power that could be used to adversely affect competition in markets dependent on the Mount Isa Route service, including the North West Queensland minerals tenements market. This is because Queensland Rail is the natural monopoly provider of a service that the market participants in the North West Queensland minerals tenements market rely upon to realise the value of their tenements.

Glencore agreed with the QCA's analysis in the draft recommendation:

> Glencore agrees with the QCA's analysis that consideration of criterion (a) requires an analysis of whether QR has market power and whether it has the ability or incentive to exercise such market power.
>
> It is absolutely clear from the QCA Draft Decision that QR does have market power in respect of the Mount Isa Rail Access Service. QR is a monopoly supplier of that service and is clearly not constrained given that there are no viable substitutable services (including for the transport of bulk commodities from Mount Isa to the Port of Townsville).
>
> Consequently, the critical question is whether QR has the ability or incentive to exercise such market power with or without declaration …[259]

Queensland Rail argued that in a future without declaration, it would be constrained in its ability and incentive to exercise that market power to adversely affect competition in any way. It argued, similar to the arguments it raised for the North Coast Line, that it was materially constrained in the provision of below-rail services for the purposes of transporting freight on the Mount Isa Line, including by:

- Competition by road operators, which provides a substitute service in respect of the transportation of freight other than some bulk commodities over long distances. Parties requiring freight transportation services can readily shift to moving freight by road rather than rail in the event of an increase in access price and/or decline in quality of service provided.
- Queensland Rail's statutory obligations and position as a statutory authority, including obligations to have approved and comply with strategic and operational plans.
- The threat of regulation or declaration under Parts 3 or 5 of the QCA Act.

The nature of these constraints are largely as discussed above in relation to the North Coast Line. Further, as highlighted by HoustonKemp, Queensland Rail is constrained by customers' ability to pay and countervailing power on the Mount Isa Line.[260]

These arguments are considered under three broad categories, and will be discussed in detail below:

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[258] For example, NCC, *Declaration of Services, A guide to declaration under Part IIIA of the Competition and Consumer Act 2010 (Cth)*, April 2018 edn, p. 33, para. 3.26; *Duke Eastern Gas Pipeline* [2001] ACompT 2 at [116]; Queensland Rail, sub. 33, p. 19, para. 100; South West Producers, sub. 40, p. 19; Glencore, sub. 41, p. 14.

[259] Glencore, sub. 41, p. 14.

[260] Queensland Rail, sub. 33, p. 33, paras 158.1–158.3.

(1) Queensland Rail is materially constrained in the provision of below rail services by road freight operators.

(2) Queensland Rail is constrained by customers' ability to pay and countervailing power on the Mount Isa Route.

(3) Queensland Rail is constrained by other factors, such as:

(a) its statutory obligations and position as a statutory authority

(b) the threat of regulation or declaration.

The operation of access arrangements in a future without declaration as a possible constraint on Queensland Rail's ability and incentive to exercise market power is considered in section 5.5.3.

6.5.1 Competition between road freight and rail freight transport

Queensland Rail argued that it has no ability or incentive to exercise market power to adversely affect competition in any dependent market that relies on the Mount Isa Line, because it is materially constrained in the provision of below-rail services by road freight operators. Queensland Rail highlighted the 'challenges of rail specific to the freight carried on the Mount Isa Line', and provided examples of 'increasing competition from road operators on the Mount Isa Line'.[261]

The nature of the freight task on the Mount Isa Route

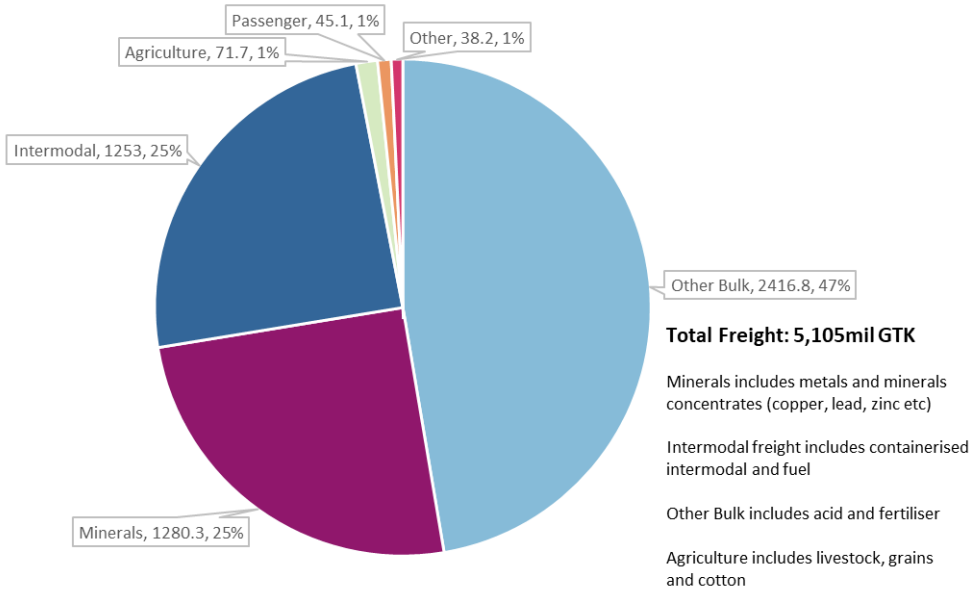
Queensland Rail provided data for the main types of traffic carried on the Mount Isa Line in 2016–17 as follows:

- Minerals, including refined copper and lead, and lead and zinc concentrates formed 25 per cent of total gtk.
- Other bulk freight, including acid, fertiliser and cement formed 47 per cent of total gtk.
- Intermodal, primarily industrial products used as mining inputs formed 25 per cent of total gtk.
- Agriculture, long distance passenger services and other freight together formed 3 per cent of total gtk.[262]

A breakdown of the types of traffic transported on the Mount Isa Line in 2016–17 is shown in Figure 9.

[261] Queensland Rail, sub. 33, pp. 33–34, paras 162–66.
[262] Queensland Rail, *2016–17 Annual Performance Report*, Queensland Rail Access Undertaking 1, December 2017, p. 18.

Figure 9 Mount Isa Line freight volumes by commodity (and passengers), 2016–17 (million gtk)



Source: Adapted from Queensland Rail, 2016–17 Annual Performance Report, Queensland Rail Access Undertaking 1, December 2017, p. 18.

For the purposes of this analysis, the QCA has applied this data to the Mount Isa Route.

The Mount Isa Route is primarily used to transport mining inputs from the Port of Townsville to the NWMP, and to transport minerals products (e.g. ores and concentrates) from the mines of the NWMP to the Port of Townsville for export. In addition, bulk granular fertiliser is railed from Phosphate Hill to Townsville, and sulphuric acid and bulk sulphur are railed from Townsville and Mount Isa to Phosphate Hill as an input into fertiliser production.

Bulk and non-bulk freight carried on the Mount Isa Route

The QCA considers that the majority of freight transported on the Mount Isa Route can be classified as 'bulk freight', which generally involves large volumes of homogenous product, typically liquid or crushed material (e.g. minerals, acid, fertiliser), transported in mass quantities, without packaging, which tend to be relatively non-perishable and non-fragile. Applying the above data, this bulk freight includes mineral ores, concentrates, acid and fertiliser, and makes up 72 per cent of total gtk carried.

Road transport does not effectively compete with rail transport for bulk freight on the Mount Isa Route

The QCA considers that for bulk products on the Mount Isa Route, rail is the preferred transport mode (discussed in section 5.5.2). This is particularly the case where large volumes of product need to be transported.

In the case of the Mount Isa Route, the nature of the goods produced by the tenements, being high-volume bulk minerals, combined with a substantial distance to port, means that rail transport offers a cost advantage over road transport. The average per kilometre cost of road freight is approximately constant with respect to distance, whereas rail transport is associated with significant economies of scale, with costs decreasing with increasing freight volumes and

distances.[263] The North West Queensland minerals tenement market is a substantial distance away from the nearest export port—the distance from Mount Isa to the Port of Townsville is over 1,000 km. For freight travelling greater than 600–1,000 km, rail transport is significantly cheaper than road.[264]

This is supported by Glencore, which stated:

> For all of the bulk minerals services contracted by Glencore, rail transport is the only economic mode of transport ... road haulage does not provide any competitive constraint on rail costs for bulk minerals …[265]

The natural cost advantage of rail for transporting freight (both bulk and non-bulk) over the long distances on the Mount Isa Route means that users of the Mount Isa Route service depend upon rail transport as the primary mode of transporting their freight, both for moving mining inputs into a tenement and for transporting minerals output out to port.

Rail transport may compete with road transport for some intermodal freight on the Mount Isa Route

Some intermodal freight on the Mount Isa Route may face competition from road transport (as with intermodal freight on the North Coast Route, discussed in section 5.5.2). However, the evidence that stakeholders presented on this topic is mixed.

Intermodal freight on the Mount Isa Route typically consists of:

- industrial products used as mining inputs, such as cement, which can be palletised and transported on intermodal services
- liquid fuels transported in tank containers
- smaller volumes of minerals and metals, which can be transported in containerised form.[266]

Queensland Rail provided examples of lead, cement and fuel being transported by road, and noted that the final remaining bulk fuel rail service on the Mount Isa Line ceased in 2016–17.[267] Glencore acknowledged that some non-minerals freight such as fuel and cement have been utilising road transport from the Townsville region to the NWMP:

> Glencore does not dispute that there are some mining inputs which it is economic to transport by road. However, that clearly involves the acquisition of a different product for a different purpose and does not change the fact that for bulk minerals, road haulage is not a competitive constraint (i.e. cost savings or synergies arising from backhaul deliveries has not made road competitive for bulk minerals).[268]

Based on the information before it, the QCA considers that there is evidence to suggest that the transport of some mining inputs, particularly as intermodal freight, can switch between road and rail transport.

However, there is little publicly available evidence as to the magnitude (i.e. volumes carried) of the road task compared to the rail task in the transport of these goods, particularly given the long distances involved on the Mount Isa Route. For example, it may be that the majority of

[263] Bureau of Infrastructure, Transport and Regional Economics (BITRE), *Road and rail freight: competitors or complements?*, information sheet 34, Australian Government, 2009, p. 8.
[264] ACCC, *Pacific National/Linfox—Proposed acquisitions of intermodal assets from Aurizon*, Statement of Issues, March 2018, p. 13.
[265] Glencore, sub. 17, p. 8; sub. 41, p. 7.
[266] Queensland Rail, sub. 33, attachment A, pp. 3, 12.
[267] Queensland Rail, sub. 33, pp. 34–35, paras 163–66.
[268] Glencore, sub. 41, p. 9.

intermodal freight between Townsville and the NWMP is carried by rail, despite some freight (e.g. fuel and cement) carried by road (or vice versa). In the absence of evidence on this issue, the degree of competition between road and rail for the transport of mining inputs as intermodal freight is unclear.

The evidence in relation to switching between road and rail for the transport of minerals and metals also appears to be somewhat equivocal. Queensland Rail submitted that the mode in which some mineral freight is transported has shifted from bulk freight to intermodal freight:

> There has been a trend towards miners moving minerals concentrates as containerised freight on intermodal trains, to avoid the costs of specific bulk wagons and loading/unloading facilities. However, moving minerals concentrates in containers is less efficient (and more costly and thus less competitive) than a bulk transport solution.[269]
>
> …
>
> Investment in the Port Access Road in Townsville allowed high capacity Type 2 Road Trains direct access to the port, which has facilitated mode shift of minerals products from the Mount Isa Line catchment. Also, smaller scale mines on the Mount Isa Line wanting to reduce upfront capital costs on train loading and unloading facilities may choose an intermodal logistics solution that road can compete on.[270]

Similarly, Queensland Rail's consultant HoustonKemp stated:

> Road freight provides an increasing constraint on rail freight along the Mount Isa system. Although the constraint from road haulage is less likely to bite for heavier, bulky items for which rail is most suited, road freight is becoming a viable option for some bulk items. In particular:
>
> - Several new, smaller scale mines along the Mount Isa system are opting for intermodal solutions such as half-height containers, reducing the up-front capital costs necessary for new mine sites to put in place transport and logistics arrangements – this is often a preferred solution, even where the total cost is lower under traditional, bulk rail wagons, and makes road a closer constraint for bulk items …[271]

Both submissions suggest that some bulk products have been transported as intermodal freight, but it is not clear whether this intermodal freight is being transported by rail or road. There is little publicly available evidence as to the degree to which road competes with rail for the transport of intermodal containerised minerals freight on the Mount Isa Line specifically, particularly given the large distances involved for this transport.

For example, intermodal freight on the Mount Isa Route largely travels the entire length of the line from Townsville to the NWMP (or vice versa); unlike the North Coast Route, there is very little stopping at intermediate locations between these two points. Additionally, the types of goods carried as intermodal freight differ—from mainly mining inputs on the Mount Isa Route to mainly retail, consumer and agricultural products on the North Coast Route. As such, the analysis of road and rail issues for intermodal freight on the North Coast Route cannot simply be applied by analogy to the containerised minerals freight on Mount Isa Route.

Therefore, the QCA considers that the transport of some intermodal freight on the Mount Isa Route, in particular mining inputs transported as containerised freight, may face competition from road transport.

[269] Queensland Rail, sub. 33, p. 34, para. 161.
[270] Queensland Rail, sub. 33, p. 35, para. 167.
[271] Queensland Rail, sub. 33, attachment B, p. 18.

Does competition from road transport constrain Queensland Rail's ability and incentive to exercise market power?

Criterion (a) requires an analysis of the effects of declaration on competition in a dependent market. A key issue is therefore whether competition from road transport operators provides an effective long-term constraint on Queensland Rail's ability and incentive to exercise market power against market participants in the North West Queensland minerals tenements market.

Inputs and outputs of a minerals tenement

Participants in the North West Queensland minerals tenements market rely upon Queensland Rail's Mount Isa Route service for the transport of mining inputs into the tenement, and for the transport of mining products out of the tenement.

The QCA considers that mining inputs may be transported as bulk or intermodal freight from the Townsville region into the NWMP. While there is evidence of competition between road and rail for the transport of specific mining inputs (e.g. cement and fuel), there is little publicly available evidence of the volumes of road freight relative to rail freight for these types of goods. In the absence of this evidence, and in accordance with the analysis in section 5.5.2, the QCA considers that because the Townsville region is a substantial distance from the NWMP, it is likely that there is a cost advantage in transporting mining inputs by rail rather than by road. This advantage is bigger when transporting large quantities/volumes of mining inputs.

The majority of mining outputs from the North West Queensland minerals tenements market is likely to be minerals in bulk form (e.g. refined copper and lead, and lead and zinc concentrates).[272] The QCA considers that road transport does not effectively compete with rail transport for bulk freight on the Mount Isa Route, and it is likely that the majority of this transport task is performed by rail.

Queensland Rail's ability and incentive to exercise market power is not constrained with respect to participants in the North West Queensland minerals tenements market

The QCA considers that Queensland Rail is not constrained in its ability and incentive to exercise market power against the participants in the North West Queensland minerals tenements market.

Figure 10 is a graphical representation of possible rail prices charged for the movement of freight on the Mount Isa Route in a future without declaration.

[272] While smaller volumes of some bulk minerals may be transported by road, this would not be sufficient to act as a competitive constraint to transportation by rail.

Figure 10 Rail prices on the Mount Isa Route in a future without declaration

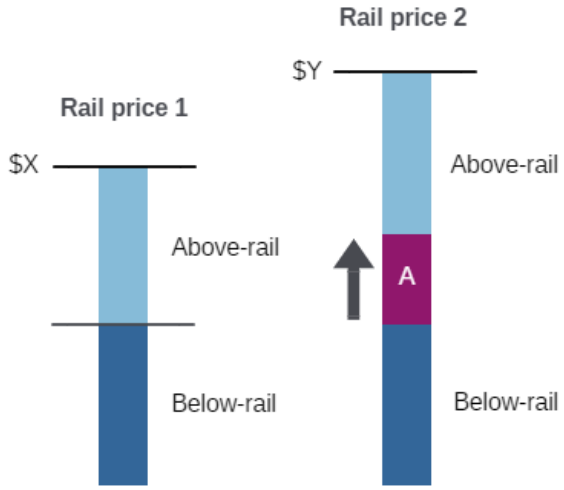


Diagram for illustrative purposes only. Not drawn to scale.

The rail price in the figure represents the final price paid by market participants (e.g. miners) in the North West Queensland minerals tenements market. The total rail price consists of two components—an above-rail component, which represents the charges of the above-rail operator, and a below-rail component, which represents the charges of the below-rail operator (Queensland Rail).[273]

Assume that the current state of the market is 'Rail price 1'. The below-rail price and the above-rail price together add to $X, the price paid by a miner to haul freight on the Mount Isa Route. In a future without declaration, Queensland Rail is likely to seek to exercise its market power, where it is possible to do so, in order to maximise its profits. It may seek to exercise this market power by raising the below-rail access charge. The QCA considers that two possible scenarios may then arise, depending upon the nature of the contracts between the miners and Queensland Rail; however, the scenarios lead to similar outcomes.

In the first scenario, miners have access agreements directly with Queensland Rail, and access rights under those contracts are allocated to that miner's nominated above-rail operator (see section 6.4.3). Therefore, the miner pays a below-rail price directly to Queensland Rail, and an above-rail price directly to the above-rail operator. In this case, if Queensland Rail raises its below-rail price, the higher price will be paid directly by the miner, and not necessarily result in an increase in the above-rail price. This scenario is illustrated by 'Rail price 2' in Figure 10, with an increased total rail price of $Y. In this case, the increase in the access charge (represented by area A) is attributable to (i.e. considered as a part of) the below-rail price.

In the second scenario, an above-rail operator may have an access agreement with Queensland Rail, and then offer their haulage services to the miner (see section 6.4.3). In this case, if Queensland Rail raises its below-rail price, it is likely that the above-rail operator will have an incentive to, and is likely able to, pass through the increase in price in full.[274] In this case, the increase in the access charge (area A) is attributable to (i.e. considered as a part of) the above-

[273] The diagram is for illustrative purposes only and does not represent the actual share of the total price between the above-rail and below-rail operators.

[274] This is because as businesses, above-rail operators are also profit maximisers. Therefore, to the extent that an above-rail operator can pass on a below-price increase to the end user (miner), the QCA considers it will do so.

rail price. However, it nevertheless leads to a total rail price of $Y, illustrated by 'Rail price 2' in Figure 10.

Additionally, there may be competition between above-rail operators such that one operator may be prepared to 'absorb' the increase in access charge (i.e. not pass on the increase in full) in order to increase its market share. In this case, the size of area A will vary such that $Y is greater than or equal to $X. In the case where $Y is equal to $X, the above-rail operators are constrained by competition in the above-rail market from passing on any of the increase in access charges. In this case, the scenario of the collective constraint discussed in section 5.5.2 applies.[275]

Where $Y is greater than $X, the following analysis applies. In the scenario represented by 'Rail price 2', a miner in the North West Queensland minerals tenements market is unlikely to be able to credibly threaten to switch the majority of its transport task (for both mining inputs and outputs) to road in response to the increase in the total rail price. This is because:

- Mining outputs are largely transported in bulk form.
- Mining inputs and outputs travel large distances on the Mount Isa Route.
- Mining inputs and outputs may need to be transported in large volumes.

In addition, a miner in the North West Queensland minerals tenements market would likely have made significant sunk investments into long-life assets, such as the mine itself and associated production facilities and equipment. These investments are unlikely to be easily deployed elsewhere.

The QCA considers that if, in this case, Queensland Rail raised the below-rail charge, and access charges increased to $Y (as in Figure 10), a miner in the North West Queensland minerals tenements market is unlikely to be able to credibly threaten to switch the majority of its transport task to road, or credibly threaten to exit the market, given its sunk investments.

In theory, the level of $Y may be a value that could extract the value of the sunk investments of the miner. For an existing miner, this scenario may be regarded as a transfer of rents between the miner, the above-rail operator or the below-rail operator (as the case may be), with little impact on competition in the North West Queensland minerals tenements market. However, the QCA considers that the critical issue is that a potential miner seeking to enter the market, or an existing miner seeking to reinvest in the market, can foresee this risk—that any sunk investments it makes may be exposed to the risk of expropriation by Queensland Rail in a future without declaration. This is the hold-up risk, which is discussed in detail in section 6.6.2.

In summary, the ability of Queensland Rail to exercise market power in future contracting periods, in a future without declaration, creates a significant degree of uncertainty for potential market participants at the time they are considering investment, raising the hurdle rate required to justify the investment, and thereby potentially preventing efficient entry and efficient participation in the North West Queensland minerals tenements market.

[275] The scenario is not discussed where an above-rail operator raises its charges, where Queensland Rail does not increase the below-rail access charge. This is because competition exists in the above-rail market. If an above-rail operator threatened to unilaterally raise its price or is otherwise not competitive in its offering, miners have the option of approaching other competitor above-rail operator. An example is on the Mount Isa Route, Glencore once switched its above-rail haulage operator from Aurizon to Pacific National. Glencore said (sub. 41, p. 8) that '[t]his was an anticipated short term cost of switching between competing rail providers, which Glencore considered was justified by the longer term improvement in price and service achieved for rail haulage'.

Therefore, the QCA considers that competition from road is not an effective constraint on Queensland Rail's ability and incentive to exercise market power against the market participants in the North West Queensland minerals tenements market. The QCA considers that market participants in this market may be exposed to the risk of hold-up in a future without declaration. The hold-up issue is discussed in detail in section 6.6.2.

6.5.2 Customers' ability to pay and countervailing power

Queensland Rail argued that it is constrained in the provision of below-rail services by customers' ability to pay and countervailing power on the Mount Isa Line.[276] Queensland Rail did not further elaborate upon this point, but referred to the HoustonKemp report, which states:

> Revenue collected from access prices on the Mount Isa system ($74 million in 2017–8) is significantly below the revenue ceiling limit ($181 million in the same year), and prices will not change materially if Queensland Rail became undeclared.[277] This is because the current regulatory arrangements do not prevent Queensland Rail from increasing access prices.
>
> It follows that the binding constraints on Queensland Rail's price setting are non-regulatory factors such as competition from road, end consumer's ability to pay and countervailing power. These factors will not change with removal of declaration and thus removing declaration, and it [sic] associated regulatory pricing constraint, would not lead to access price changes.[278]

HoustonKemp did not further elaborate upon these points in its report.

The QCA does not consider that the Queensland Rail submission or the HoustonKemp report demonstrated a customer's ability (or inability) to pay for the Mount Isa Route service, or the presence of countervailing power from users of the Mount Isa Route service.

HoustonKemp's view that 'current regulatory arrangements do not prevent Queensland Rail from increasing access prices' is discussed in detail in section 5.6.3.

Firstly, it is not clear how the ceiling revenue limit of $181 million put forward by Queensland Rail has been calculated. The QCA does not currently (and has not in the past) set a ceiling revenue limit for the Mount Isa Line.[279] In any case, whether any ceiling revenue limit is (or is not) achieved is not necessarily an indication of the absence of market power, nor an indication of the presence of countervailing power—this is because firms act to maximise profits, not revenue.

Secondly, the QCA considers that the existing regulatory regime imposes a range of constraints (in the form of both obligations on the access provider and rights to the access seeker) that prevent the service provider from exercising its market power. These requirements (e.g. in the QCA Act or the undertaking) cannot be unilaterally changed by Queensland Rail. These constraints extend beyond the setting of a ceiling revenue limit. As Glencore noted:

> However, the main pricing protection that users of QR's services have is the right to refer access disputes (including as to pricing) to the QCA for an arbitrated access determination ... Glencore

[276] Queensland Rail, sub. 33, p. 33, para. 159.

[277] This is estimated access revenue and excludes TSC and other revenue. The ceiling limit value is estimated through the application of a modified DORC valuation and is calculated using revenue and expense forecasts from Queensland Rail below-rail product forecasts, which reflect Queensland Rail's 2017–18 Corporate Plan estimates. These values are generated by Queensland Rail.

[278] Queensland Rail, sub. 33, attachment B, p. 19.

[279] The 2016 access undertaking contains pricing rules for the determination of a ceiling revenue limit, however, the QCA does not currently (and has not in the past) set a ceiling revenue limit for any of Queensland Rail's rail systems, except for the West Moreton system.

> confirms that it takes the likely QCA arbitrated outcome into account when negotiating access prices with QR and has raised the likely QCA outcome with QR as part of commercial negotiations …
>
> Glencore also notes that users of the Mount Isa Rail Access Service can raise the potential for a Mount Isa Rail Access Service reference tariff in QR access undertaking processes, which they would be anticipated to begin doing if QR was to consistently seek to engage in monopoly pricing while declaration exists.[280]

In addition, the QCA does not consider that any evidence or reasoning has been given to support the statements that 'prices will not change materially if Queensland Rail became undeclared'.[281] For example, the QCA approves access undertakings from time to time and the 2016 Queensland Rail undertaking has a range of pricing rules for developing access charges, which constrains the manner in which Queensland Rail negotiates access prices for the Mount Isa Route service.[282]

In relation to countervailing power, the QCA does not consider that customers on the Mount Isa Route have equal bargaining power with Queensland Rail, particularly at contract renewal stage.[283] This is discussed in more detail in the context of the hold-up issue in section 6.6.2.

The QCA therefore considers that Queensland Rail is not constrained in its ability or incentive to exercise market power by customers' ability to pay or countervailing power.

6.5.3 Other constraints on Queensland Rail's ability and incentive to exercise market power

Queensland Rail argued that it is materially constrained in the provision of below rail services by:

- Queensland Rail's statutory obligations and position as a statutory authority, including obligations to have approved and comply with strategic and operational plans.
- The threat of regulation or declaration under Parts 3 or 5 of the QCA Act.[284]

Similar arguments were raised by Queensland Rail in relation to the North Coast Line. The QCA considers that its analysis of these issues in relation to the North Coast Route service is also applicable to the Mount Isa Route service. The detailed discussion of this issue is in section 5.5.3.

6.5.4 Conclusions on Queensland Rail's ability and incentive to exercise market power

Based on the analysis above, the QCA considers that Queensland Rail has the ability and incentive to exercise market power in the dependent North West Queensland minerals tenements market in a future without declaration.

The following sections will consider the state of competition in the North West Queensland minerals tenements market in a future with and without declaration.

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[280] Glencore, sub. 41, p. 18.

[281] Queensland Rail, sub. 33, attachment B, p. 19.

[282] For further information on the pricing rules, refer to QCA, *Queensland Rail's Draft Access Undertaking*, decision, June 2016, Chapter 3, https://www.qca.org.au/wp-content/uploads/2019/05/30680_Secondary-Undertaking-Notice-attachment-QCA-Decision-1.pdf.

[283] That is, given that mines and rollingstock typically have useful lives of 25+ years, and access agreements with Queensland Rail have typically been for 10 years, at some stage during the useful life of the asset, the access agreement with Queensland Rail (presumably signed when the mine or rollingstock was first acquired) will be due for renewal.

[284] Queensland Rail, sub. 33, p. 33, paras 158.2–158.3.

6.6 Competition in the North West Queensland minerals tenement market in a future with and without declaration

6.6.1 A future with declaration

The QCA considers that a future with declaration will entail a continuation of the existing regulatory regime, whereby participants in the North West Queensland minerals tenement market are able to gain access to below-rail services for both the transportation of mining inputs and the export of mine outputs, on reasonable terms and conditions, due to ongoing regulatory oversight and the protections provided by the access regime in Part 5 of the QCA Act.

The regulatory framework in a future with declaration is an effective long-term constraint on Queensland Rail's ability and incentive to exercise market power. This will provide certainty to a potential new market entrant (or an existing tenement holder approaching renewal of its existing rail agreements or mining authorities) that access to the service will be provided on reasonable terms and conditions in the future with declaration.[285]

Freight costs, as well as non-pricing terms for the carriage of freight, are relevant to the overall decision-making process for a firm seeking to enter the market, or for an existing firm facing renewal of its rail agreement or mining authority. This is because of the relative remoteness of the NWMP region to the nearest export port (a distance of approximately 1,000 km from Mount Isa to the Port of Townsville) and the lack of effective competition from road for the transport of bulk materials, particularly large volumes over long distances.

HoustonKemp disagreed with the QCA's view in the draft recommendation that freight costs are likely to be a material component of the overall decision-making process, saying:

> Estimates provided by Queensland Rail suggests that the importance of below rail costs varies depending on commodity. For example, Queensland Rail's analysis suggests that in 2017-18, below rail costs represent around:
>
> - 0.3 per cent of estimated commodity price for cooper [sic];
> - 0.8 per cent of estimated commodity price for zinc;
> - 0.9 per cent of estimated price for lead; and
> - 5 per cent of estimated commodity price for fertiliser.
>
> In summary, below rail costs are an immaterial input costs for many of the bulk products on the Mount Isa system.
>
> Our conclusion is that with or without declaration, the volumes and access prices on the Mount Isa system will be the same. This is because Queensland Rail has the incentive to maximise volume due to spare capacity and that the access pries [sic] are not constrained by regulation, and as such would not be expected to change without regulation.[286]

In contrast, Glencore argued:

> Glencore's strong impression is that QR has the (misconceived) view that its pricing does not impact on the development of projects – such that it does not seek to set pricing in a way that incentivises or facilitates additional investment or demand.
>
> Consequently, QR's submissions amount to pure speculation that it will not be incentivised to engage in monopoly pricing, and Glencore urges great caution in determining the likely

[285] As declaration provides a process under the QCA Act and access undertakings for the setting of reasonable terms and conditions of access.
[286] Queensland Rail, sub. 33, attachment B, p. 20.

> outcomes with and without declaration in dependent markets on the basis of such speculation, when all past conduct of QR contradicts the very theoretical arguments QR and Houston Kemp raise.[287]

HoustonKemp does not describe how the below-rail prices it quotes are calculated. As prices on the Mount Isa Route are negotiated individually with access users, the QCA does not have visibility over these prices, nor Queensland Rail's calculations. However, the existing prices in 2017–18 represent prices negotiated under declaration, and thus provide some guidance on possible prices in a future with declaration as the framework and process within which prices are set will remain.[288] In contrast, existing prices may not provide guidance as to prices in a future without declaration, where Queensland Rail can exercise market power. HoustonKemp did not provide reasoning or evidence to support its argument that 'volumes and access prices on the Mount Isa system will be the same' with or without declaration. The QCA's analysis of a future without declaration is discussed below.

6.6.2 A future without declaration: the hold-up problem

As a business, Queensland Rail has an incentive to maximise profits. In a future with declaration, its ability and incentive to exercise its market power in order to maximise profits will be constrained by the regulatory regime. The QCA considers that in a future without declaration, however, Queensland Rail will not face any effective long-term constraints on its ability and incentive to exercise market power in order to maximise profits. In particular, the QCA considers that access arrangements applied by Queensland Rail will not act as an effective constraint.

It is in this environment that market participants will face decisions to enter or operate in the North West Queensland minerals tenements market in a future without declaration. In particular, a new entrant to the North West Queensland minerals tenements market will have to incur significant sunk costs. Sunk costs include the costs of exploration and preparatory activities prior to developing a mine (e.g. feasibility studies), which are site-specific. Sunk costs also include the costs of developing the mine itself—the underlying value of the mine, once developed, resides in its potential output, and is site-specific. The presence of sunk investments gives rise to the 'hold-up problem' commonly described in the economics literature.

The hold-up problem is illustrated below with respect to two types of possible entrants in the North West Queensland minerals tenements market: entrants intending to develop the tenement, and entrants intending to resell the tenement. A discussion of the economic theory of hold-up is provided in Appendix A.

Entrants intending to develop the tenement

If a potential entrant commits to entering the market and developing a tenement, it will incur considerable sunk costs in developing the mine. These costs are site-specific sunk costs, in the sense that once the investment is incurred, the costs are 'attached' to the mine. According to Glencore, the typical duration of mining operations in the NWMP is in the vicinity of 10 to 30 years, depending on the operation.[289] In contrast, the typical length of a rail haulage contract is approximately 10 years.[290] Therefore, sometime during the useful life of the mining tenement, it can be expected that the below-rail access agreement will be due for renewal. As noted in

[287] Glencore, sub. 41, p. 16.
[288] The QCA notes that an access undertaking can be amended from time to time.
[289] Glencore, sub. 5, p. 15.
[290] QRC, sub. 7, p. 19.

section 6.4.3 above, below-rail access agreements with Queensland Rail have historically not contained evergreen renewal clauses. This means that any terms contained in the original access agreement may not be necessarily replicated in any new access agreement.

Therefore, when the below-rail access agreement is due for renewal, in subsequent periods after the miner has entered the market (or committed to an expansion within it), the miner would be in a less favourable bargaining position with Queensland Rail. The miner has already made significant sunk investments in developing the mining tenement, and will continue to largely rely on access to the Mount Isa Route service in order to import mining inputs and to export mine outputs. Without continued access to the Mount Isa Route service, a miner faces the risk that its asset (the tenement) will be stranded.

In a future without declaration, the QCA considers that Queensland Rail will not face any effective long-term constraints on its ability and incentive to exercise market power in these subsequent periods when the access agreement is due for renewal. For example, Queensland Rail may raise access charges, or offer less favourable non-price access terms (e.g. train path allocations). This is a point argued by Glencore, which said:

> [I]n the absence of declaration there will be:
>
> (a) a significant increase in prices to existing users;
>
> (b) a much higher likelihood of differential pricing with a high prospect of favouring some users over others – not justified on the basis of efficiency, but rather based on commercial negotiations and/or the uncertainty of different arbitral outcomes
>
> (c) a dramatic chilling effect on investment in mines or industrial facilities reliant on the use of the rail. In particular, it is difficult to see why an investor would incur considerable amounts in exploration and development (and obtaining related regulatory approvals), if the investor is ultimately faced with an access negotiation where QR is economically incentivised to charge the producer an access price which would leave the producer only covering marginal costs (and not being able to recover the sunk costs expended to that point).[291]

In these subsequent periods, an exercise of market power by Queensland Rail against a miner may arguably be regarded as a transfer of rents between the parties, with little effect on competition. However, the QCA considers that the critical issue is that in the first period, a miner can foresee this risk that any sunk investments it makes will be exposed to the risk of expropriation by the monopolist in the subsequent periods.

The presence of this risk of hold-up means that socially optimal investments will not proceed, or there will be an underinvestment. Queensland Rail may have an incentive to solve this hold-up problem ex ante—for example, it may be profit maximising for Queensland Rail to sell unused network capacity to new or renewing users, assuming it is not constrained to charging a uniform price.[292] However, as discussed below, the QCA's view is that it will be difficult for Queensland Rail to credibly commit ex ante to solve the hold-up problem (for example through a long-term contract). The problem is that events could develop in the future where the benefits to Queensland Rail of expropriating the value of the investment at that later time exceed the benefits of continuing to abide by status quo arrangements. The QCA considers that it is this risk—that significant sunk investments made by miners into their mining tenements will be

[291] Glencore, sub. 17, p. 14.

[292] For instance, under the 2016 access undertaking, Queensland Rail is not required to charge a uniform price on the North Coast Line or any other system except for the West Moreton system, where there is a reference tariff for coal trains. On the non-West Moreton systems, prices are negotiated between Queensland Rail and the customers seeking below-rail access.

expropriated—that will lead to a material adverse effect on competition in the North West Queensland minerals tenements market in a future without declaration (the QCA's approach to the concept of materiality is discussed below).

The ability of Queensland Rail to exercise market power in future contracting periods creates a significant degree of uncertainty around material terms (such as pricing and terms of access) for potential market participants at the time they are considering investment. This is likely to adversely affect the value of the tenements in this market, and raise the hurdle rate required to justify an investment in a tenement. The QCA considers that this risk is sufficiently material that a miner may be deterred from entering the market in the first place. As Glencore said:

> [I]t is impossible to see how investors would incur costs in exploration and development when there is such limited certainty of costs [on the Mount Isa Route service] and the knowledge that they can be held hostage to monopoly pricing at the time of seeking access.
>
> It is highly likely that the prospect of new entry will be eliminated.
>
> Even if Glencore was incentivised to continue to participate in the market due to its existing portfolio of Mount Isa mines and existing take or pay rail haulage or port commitments, that will forever entrench a position of there being few possible acquirers in the market (being the existing incumbents). This is particularly so as most (if not all) other producers in the region are producers of a single project such that once the life of those projects had expired (or prices had been increased to such a point that producers could not feasibly operate a single project in the region) they would not be incentivised to reinvest further in further tenements.[293]

The QCA considers that in a future without declaration, the hold-up problem will also apply to existing tenement holders at the time of their contract renewal (of the below-rail contract). Therefore, the QCA is concerned that in a future without declaration, existing tenement holders may begin to delay undertaking efficient actions in their existing tenements in anticipation of the possibility of such investments being held up.

Thus, the QCA is concerned that in a future without declaration, all market participants in the North West Queensland minerals tenement market will face uncertainties relating to material price and non-price terms for access to below-rail services on the Mount Isa Route, particularly at the time of contract renewal, and that these uncertainties will deter efficient entry and efficient participation across the North West Queensland minerals tenement market.

Entrants intending to resell the tenement

An argument may be made that an entrant to the North West Queensland minerals tenement market who is intending to simply hold the tenement and resell it at a later date will not incur the same sunk costs as an entrant intending to develop the tenement, and thus will not face the hold-up problem.

The QCA considers that this argument fails to appreciate the risks borne by the potential reseller. Even if a potential entrant is only seeking to acquire a tenement for future re-sale, it can foresee that any future buyer would need to incur considerable sunk costs in order to develop the tenement, and that the need to incur sunk costs would be a material part of that buyer's decision-making process. Thus, by entering the market, a reseller assumes the risk that Queensland Rail may act in an unconstrained manner in a future without declaration. If future potential entrants are deterred from entering the market due to concerns about the hold-up issue, this is likely to adversely affect the value of the reseller's investment.

[293] Glencore, sub. 17, p. 14.

The QCA considers that a potential reseller would be able to foresee this risk at the time of entry, and would likely be deterred from entering the market in the first place. In this sense, the uncertainties in relation to access terms in a future without declaration are likely to also deter efficient entry and efficient participation by resellers in the North West Queensland minerals tenement market.

Queensland Rail's submission that there is no hold-up problem

In response to the QCA's analysis of the hold-up problem in the draft recommendation, Queensland Rail argued that there is no hold-up problem arising in respect of the services provided by the North Coast Line, Mount Isa Line and West Moreton systems.[294] Queensland Rail's submissions on this issue are summarised in section 5.6.3. Glencore disagreed with each of the points raised by Queensland Rail, and argued that they did not address the hold-up problem.[295]

Queensland Rail's arguments are not specific to the Mount Isa Line, but instead apply to each of the services provided by the North Coast Line, Mount Isa Line and West Moreton systems. As such, the QCA refers to its detailed consideration of the arguments raised by Queensland Rail in section 5.6.3 above. In summary, the QCA considers that the issues raised by Queensland Rail are unlikely to sufficiently address the risk of hold-up in a future without declaration. A further discussion of the economic literature relating to hold-up problem is provided in Appendix A.

6.6.3 Promote a material increase in competition

Materiality

In the case of the Mount Isa Route service, the QCA considers that access (or increased access) to the service, on reasonable terms and conditions, as a result of declaration would promote a material increase in competition in the North West Queensland minerals tenements market. The QCA's approach to the concept of materiality is discussed in section 5.6.4.

A decision to enter (or re-invest in) the North West Queensland minerals tenements market will involve substantial sunk investments. In a future without declaration, the presence of sunk investments gives rise to the hold-up problem. The QCA considers that the risk of hold-up in the presence of substantial sunk investments is sufficiently material that it is likely to discourage efficient firms from entering the market. In contrast, the QCA considers that declaration, and the associated access regime, is able to credibly constrain Queensland Rail's ability and incentive to exercise market power and address the hold-up risk.

The QCA considers that the credible constraint on the risk of hold-up in the presence of substantial sunk investments will promote a non-trivial, material improvement in the environment for competition in the North West Queensland minerals tenements market. The environment for competition in a future with declaration is likely to promote efficient entry (and efficient investment) by all market participants, such that competitive outcomes in the North West Queensland minerals tenements market are materially more likely to occur.

If efficient entry is likely to be promoted in a future with declaration (compared to a future without declaration), the QCA considers that this would indicate that access (or increased access) to the service, on reasonable terms and conditions, as a result of declaration would promote an increase in competition that is material. In this way, the QCA is satisfied that access

[294] Queensland Rail, sub. 33, p. 39, paras 191–92, sub. 33, attachment B, pp. 13–14.
[295] Glencore, sub. 41, pp. 16–18.

as a result of declaration would promote a material increase in competition in the North West Queensland minerals tenements market.

Conclusion on the hold-up problem in the North West Queensland minerals tenements market

In the case of the Mount Isa Route service, the QCA considers that the uncertainties facing market participants in a future without declaration would affect all participants across the market, including more efficient firms. Conversely, the QCA considers that the certainties and protections offered by the access regime under declaration would promote efficient entry and efficient participation in the North West Queensland minerals tenements market.

The QCA considers that in a future without declaration, Queensland Rail will not face any effective long-term constraints on its ability and incentive to exercise market power in relation to access terms. In a future without declaration, there will be an imbalance of negotiating power between Queensland Rail and access seekers/users in the presence of sunk investments. The QCA acknowledges that commercial firms face a range of risks and uncertainties in decision-making on a daily basis. However, an imbalance in bargaining power could inhibit the ability of access seekers/users to effectively manage risks, including the risk of hold-up, which have a significant effect on the expected profitability of entry into (and operations within) the market. The presence of these risks, and an imbalance in the ability of access seekers/users to address these risks in a future without declaration, are likely to deter efficient entry or efficient investments by market participants.

In contrast, the QCA considers that a future with declaration provides a transparent statutory process under the QCA Act[296] within which terms and conditions of access can be negotiated. This process provides market participants with greater certainty that access will be provided on reasonable terms and conditions, including to address sunk investments and mitigate the risk of hold-up for access seekers. As such, the QCA considers that the protections offered by the access regime in a future with declaration will lead to a material improvement in the environment for competition in the North West Queensland minerals tenements market, compared to a future without declaration.

6.7 Conclusion

The QCA considers that access (or increased access), on reasonable terms and conditions, as a result of a declaration of the Mount Isa Route service, would promote a material increase in competition in the North West Queensland minerals tenements market. This is because the opportunities and environment for competition in that market will be materially enhanced in a future with declaration, given the constraints declaration imposes on Queensland Rail's ability and incentive to exercise market power, compared to a future without declaration.

The QCA considers that criterion (a) is satisfied with respect to the Mount Isa Route service, in relation to the dependent North West Queensland minerals tenements market.

[296] The provisions of the QCA Act can only be changed by parliament.

7 CRITERION (A)—THE WEST MORETON ROUTE SERVICE

7.1 Part of the existing declared service and dependent markets

The QCA has assessed the following part of the existing declared service and the following dependent market:

Table 5 The West Moreton Route service and the dependent market

Dependent market	*Part of the existing declared service upon which the market is dependent*	*Facility for the relevant part of the service*
The West Moreton region coal tenements market	West Moreton Route service, that is use of the West Moreton Route	West Moreton system Metropolitan system (together, the West Moreton Route)

7.2 Geographical description of the West Moreton Route

The West Moreton system extends between Rosewood in the east and Miles in the west, and is over 314 km in length. It adjoins the Metropolitan system at Rosewood, and adjoins the Western system at Miles. The South Western system adjoins the West Moreton system at Toowoomba, and various branch lines of the Western system extend off the West Moreton system.[297]

Goods transported on the West Moreton system typically travel east, where access to the Metropolitan system allows users of the West Moreton system to access the Port of Brisbane, from which most of the goods transported on the West Moreton system are exported.

7.3 Dependent markets

The QCA considers that relevant dependent markets of the West Moreton Route service include:

- the West Moreton region coal tenements market
- the above-rail freight haulage market on the West Moreton Route
- the Port of Brisbane coal handling services market.

The QCA is satisfied that each of these relevant dependent markets are separate from the market for the service.

Queensland Rail did not, in its submission in response to the QCA's draft recommendation, disagree with the identification of the West Moreton region coal tenements market as a relevant dependent market. The South West Producers supported the QCA's identification of relevant dependent markets in the draft recommendation.[298]

[297] Queensland Rail, *West Moreton System Information Pack*, October 2016, pp. 12–16, https://www.queenslandrail.com.au/business/acccess/Documents/West%20Moreton%20System%20Information%20Pack%20-%20Issue%203.1%20-%20October%202016.pdf.
[298] South West Producers, sub. 40, p. 16.

The QCA considers that one major relevant dependent market on the West Moreton Route is the West Moreton region coal tenements market. Consequently, the analysis in this chapter focuses on this market. Criterion (a) may also be satisfied in relation to the other dependent markets identified by the QCA. However, given the QCA's conclusions in relation to the West Moreton region coal tenements market, the QCA has not included detailed analyses of other possible dependent markets in which criterion (a) may (or may not) be satisfied.

7.4 West Moreton region coal tenements market

7.4.1 The market

The South West Producers highlighted the existence of a tenements market:

> As noted in the FMG Tribunal Decision, a tenements market (distinct from coal markets) exists as there is evidence of supply and acquisition of tenements (of non-operational projects), including evidence of companies which acquire tenements with a view to future divestment for a profit rather than development.[299]

The QCA considers that there is a market for coal tenements in the West Moreton region. In Queensland, a distinction is made between tenements for coal (such as in the West Moreton region) and tenements for minerals (such as in the Mount Isa region). However, as is the case for the Mount Isa region, three types of mining licences are relevant to the West Moreton region: an exploration permit for coal, a mineral development licence for coal, and a mining lease (see section 6.4.1).

The South West Producers said it is likely there are two separate markets in relation to coal tenements—one in respect of exploration and development tenements, and another in respect of production tenements. This is because there are differences between the risk profile and valuation of such tenements, resulting in them not being close substitutes.[300]

The QCA accepts that there are different functional dimensions to the market for coal tenements. The QCA notes that in its concurrent review of the declaration of the DBCT service, the QCA has separately considered a market for exploration tenements, a market for development tenements, and a market for operating mines (production tenements) (see Part C, Chapter 4). This was due to the detailed data provided to the QCA by stakeholders in relation to the DBCT service.

In the present case, stakeholders have not provided the detailed information[301] in relation to the West Moreton region coal tenements market that would enable the QCA to conduct an analysis into the functional dimensions of this market. In any case, for the purposes of this analysis of the Queensland Rail service, the QCA does not consider that it is necessary to explore the distinction between the functional dimensions of the West Moreton region coal tenements market.

For the purposes of this analysis, the QCA considers that the functional dimension of the West Moreton region coal tenements market includes all three types of mining authorities. The sellers in the West Moreton region coal tenements market are the Queensland Government and existing tenement holders. The buyers in this market are explorers, developers, and

[299] South West Producers, sub. 4, p. 20. Although not directly referenced by the South West Producers in its submission, the FMG Tribunal Decision referred to in the quote is presumably a reference to *In the matter of Fortescue Metals Group Limited* [2010] ACompT 2.
[300] South West Producers, sub. 31, p. 12; sub. 40, p. 5.
[301] That is, submissions received within the period for making submissions stated by the QCA.

producers of coal who seek to acquire such tenements (these may be large established mining firms, or smaller junior miners and investors).

The QCA considers the geographic dimension of the West Moreton region coal tenements market is the area for which the most efficient and lowest-cost point of export is via the West Moreton Route service to the Port of Brisbane—that is, the area surrounding the West Moreton Route service as seen in the map below (Figure 11).

Figure 11 Map of the West Moreton coal tenements region

Source: South West Producers, sub. 4, p. 8.

Stakeholders accepted this as the appropriate geographic dimension of the market, including its inclusion of tenements that use, or can be expected to use, the West Moreton Route service. On this, the South West Producers said the geographic scope of the market is clear and a feature resulting from:

> (1) the unique rail infrastructure constraints applicable to the West Moreton and Metropolitan rail systems (lower axle loads and smaller passing loops resulting in significantly lower payload rolling stock relative to other coal systems, reserved paths for non-coal services and passenger priority);
>
> (2) the significantly different infrastructure costs per tonne;
>
> (3) lack of connections to other coal rail systems or coal terminals;
>
> (4) the vessel constraints at the Port of Brisbane; and
>
> (5) coal quality differences – with the thermal coals produced by the mines in this region being 'harder' than most other coals. [302]

The QCA notes Queensland Rail did not dispute any particular aspects of the market definition, as Queensland Rail considered precise definitions would not impact the competition analysis (of the future with or without declaration) required.[303]

[302] South West Producers, sub. 4, p. 20; sub. 31, p. 12.

7.4.2 Entry into the market

The decision of a buyer to enter the West Moreton region coal tenements market (e.g. to buy a tenement) depends heavily on their valuation modelling for the tenement. The South West Producers described the method they use to value tenements:

> Firstly, the South West Producers, as acquirers in various tenement markets, can confirm that they value tenements using financial modelling, principally reflecting a discounted cash flow model. The critical parts of that cash flow model are:
>
> (a) expected revenue – principally determined by coal prices and US$/A$ exchange rates;
>
> (b) mine operating costs; and
>
> (c) infrastructure / logistics costs.
>
> The last of these is critically important for Port of Brisbane coal tenements.[304]

Such a valuation method is in line with market practice.

Participants in the West Moreton region coal tenements market face unique infrastructure constraints because of the market's location relative to the Brisbane metropolitan region. These constraints primarily relate to requiring access to the Metropolitan system to access the export port (e.g. there are train path limits for coal services through the Metropolitan system).

The South West Producers mentioned the importance of infrastructure costs:

> [A]s the QCA is aware from consideration of the Western system coal tariffs in the last undertaking process, the infrastructure costs for this coal supply chain are higher than any other coal supply chain in Australia. This is exacerbated by the smaller vessel size which can be loaded at the Port of Brisbane.
>
> … the South West Producers both confirm … infrastructure cost considerations being critically important to future investment decisions under consideration in respect of New Acland and Cameby Downs.[305]

Infrastructure and logistics costs are therefore likely to be a material consideration for a potential market participant in the West Moreton region coal tenements market (the materiality of costs are considered in more detail in section 7.6.2).

7.4.3 Relevant features of the current West Moreton Route service

Above-rail operators and exporting mines

Aurizon Operations (Aurizon Coal) currently operates above-rail coal haulage services on the West Moreton Route, accessing the below-rail service provided by Queensland Rail to haul end customers' coal. The QCA understands that from late 2019, the above-rail haulage operator Watco will also be traversing the West Moreton Route as it carries agricultural products from the South Western and Western systems (which connect to the West Moreton Route).[306]

Two mining companies are currently producing and exporting thermal coal from the West Moreton region—New Hope (which owns the New Acland and Jeebropilly mines) and Yancoal (which owns Cameby Downs mine). All coal currently transported on the West Moreton Route to the Port of Brisbane originates from these three mines. There are other mines in the region,

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[303] Queensland Rail, sub. 33, p. 20, para. 107.
[304] South West Producers, sub. 4, pp. 20–21.
[305] South West Producers, sub. 4, p. 21; sub. 31, p. 13.
[306] Watco, sub. 48, p. 2.

but these are either co-located with (and exclusively supply) a nearby power station, or have closed.[307]

Structure of below-rail access agreements

The QCA understands that existing mining companies in the West Moreton region contract directly with Queensland Rail for access rights to below-rail infrastructure on the West Moreton Route. The mines separately contract with Aurizon Coal as their nominated rail operator.[308] Thus, in the analysis below, reference is made to the miners requiring access to this service through negotiating directly with Queensland Rail on below-rail access terms.

No evergreen renewal rights in access agreements

Typically, below-rail access agreements are for a 10-year period, compared to the typical life of a coal mine, which is around 10 to 30 years.[309] Below-rail access agreements do not include 'evergreen' renewal clauses. On expiry of existing agreements, miners would have to negotiate new terms of access within the bounds of an approved undertaking.[310] Therefore, existing terms under these agreements (e.g. in relation to pricing, capacity allocation or usage of facilities) will progressively expire, and existing terms will not necessarily be replicated in future agreements.

Under the 2016 access undertaking, a QCA-approved reference tariff applied for coal-carrying train services operating on the West Moreton system and the Metropolitan system.[311] A reference tariff can facilitate access negotiations by providing a basis for negotiation of the below-rail access charges.

Spare capacity and utilisation of the service

According to Queensland Rail, the current capacity of the West Moreton system is around 9.5 mtpa—and it is not operating at full capacity:[312]

> The capacity limitation for the West Moreton System is the available capacity on the Toowoomba Range, where West Moreton, South Western and Western Systems traffic converges. There is currently spare capacity on the Toowoomba Range and through the Metropolitan System to the Port of Brisbane.
>
> Coal services used 68% of available paths in 2016-17. The New Acland mine is nearing exhaustion and there is uncertainty as to whether it will continue operations beyond 2020.
>
> There is capacity for additional freight services on the West Moreton System.
>
> Overall 70% of available paths on the Toowoomba Range were used (coal and non-coal) in 2016-17, however, this was due to a record grain season. The four year average utilisation is [sic] for non-coal freight was 46% of the weekly 16 return preserved paths.[313]

Queensland Rail submitted that there is excess capacity on its network, which is one of the reasons that demonstrate it does not have the ability or incentive to exercise market power.[314] The QCA considers these issues below.

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[307] South West Producers, sub. 4, pp. 35–37.
[308] Contractually, the miners have the right to run trains on the West Moreton system and the Metropolitan system, but in practice, Aurizon Coal is engaged to run trains on the miners' behalf: South West Producers, sub. 4, p. 14; Aurizon Coal, sub. 21, p. 1; QRC, sub. 7, p. 31.
[309] South West Producers, sub. 4, p. 35; QRC, sub. 7, p. 19.
[310] South West Producers, sub. 4, p. 28.
[311] See Queensland Rail's Access Undertaking 1, 2016, section 3.5 and schedule D.
[312] Queensland Rail, sub. 33, attachment A, p. 6, and attachment B, p. 25.
[313] Queensland Rail, sub. 33, attachment A, pp. 3–4.

7.5 Queensland Rail's ability and incentive to exercise market power

Whether access (or increased access) to the service, on reasonable terms and conditions, as a result of declaration would promote a material increase in competition in the West Moreton region coal tenements market depends firstly on whether Queensland Rail has market power that could be used to adversely affect competition in the dependent market; and secondly on whether Queensland Rail has an ability and incentive to exercise that market power, in a future without declaration.[315]

Queensland Rail submitted it has no ability or incentive to exercise market power in any dependent markets because it is no longer vertically integrated, there is excess capacity on the network and there are material market and other constraints on Queensland Rail other than regulation.[316]

In relation to the West Moreton system, Queensland Rail said:

> In the low tonnage scenario, it is likely that the level of access charge required to cover the costs of providing Queensland Rail's services would exceed the ability of the remaining mine to pay… As described by HoustonKemp, in these circumstances, and given the West Moreton System would be underutilised, Queensland Rail would have very strong incentives to negotiate a price with the remaining mine that maximises utilisation and to promote competition in dependent markets so as to maximise demand for services on the West Moreton System (including by facilitating access to the system).
>
> In the high tonnage scenario, for the reasons outlined in the HoustonKemp Expert Report, Queensland Rail still has a strong incentive to increase mining output and it is not clear that the use of the West Moreton System satisfies criterion (a).[317]

The South West Producers said it is clear that Queensland Rail does have market power and would be incentivised to increase prices to realise monopoly profits, reduce service levels and seek more favourable terms in a future without declaration. It responded to the constraints Queensland Rail raised and provided reasons why it did not consider any of these would be effective, for example:

> It is absolutely clear that QR does have market power. In respect of the West Moreton corridor coal rail access service they are a monopoly supplier in the market, and there are (on QR's own admission), no viable substitute services.[318]

The South West Producers also said:

> In circumstances where it is clear that QR is not competitively constrained, and in the absence of declaration does not face regulatory constraints, and QR is otherwise motivated by commercial profit maximising incentives, it is clear that QR would have both the incentive and ability to exercise its market power in the absence of declaration.[319]

The QCA considers that as a business, Queensland Rail has an incentive to maximise profits. Additionally, Queensland Rail is the natural monopoly provider of a service that the market participants in the West Moreton region coal tenements market rely upon to realise the value

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[314] Queensland Rail, sub. 33, p. 15, para. 79.2; sub. 8, p. 4, para. 25.
[315] For example, NCC, *Declaration of Services, A guide to declaration under Part IIIA of the Competition and Consumer Act 2010 (Cth)*, April 2018 edn, p. 33, para. 3.26; *Duke Eastern Gas Pipeline* [2001] ACompT 2 at [116]; Queensland Rail, sub. 33, p. 19, para. 100; South West Producers, sub. 40, p. 19; Glencore, sub. 41, p. 14.
[316] Queensland Rail, sub. 33, p. 21, para. 109.
[317] Queensland Rail, sub. 33, p. 35, paras 169–71.
[318] South West Producers, sub. 40, p. 19.
[319] South West Producers, sub. 31, p. 14.

of their tenements. The possible constraints on Queensland Rail's ability and incentive to exercise market power are considered below under three broad categories:

(1) competition from road freight operators

(2) market factors, such as the uncertainty around future volumes of coal that will be transported on the West Moreton Route

(3) other factors, such as:

  (a) Queensland Rail's statutory obligations and position as a statutory authority

  (b) the threat of regulation or declaration.[320]

The operation of access arrangements in a future without declaration as a possible constraint on Queensland Rail's ability and incentive to exercise market power is considered in section 5.5.3.

7.5.1 Competition between road freight and rail freight transport

Queensland Rail submitted that it is materially constrained in the provision of below-rail services on its network by competition from road operators. However, it acknowledged this was not the case for users of the West Moreton system:

> Queensland Rail is materially constrained in the provision of below rail services to freight operators. Most significantly, for all freight other than some bulk commodities being transported over long distances (such as coal on the West Moreton System), Queensland Rail faces intense and increasing competition from road operators.[321]

This view is consistent with the position the South West Producers put forward:

> [R]oad haulage does not provide an effective constraint on the terms QR could offer in the absence of declaration due to:
>
> (1) The significant price constraints for haulage of bulk products including coal; and
>
> (2) The unique non-price constraints on utilising road haulage to transport coal to the Port of Brisbane (Port of Brisbane leasing arrangements government policy, environmental, safety and social licence to operate issues arising from transport through the Metropolitan region).[322]

The nature of the freight task on the West Moreton Route

Queensland Rail provided data for the main types of traffic carried on the West Moreton system in 2017–18 as follows:

- Coal formed 98 per cent of total gtk carried.
- Agriculture, long distance passenger services and other freight together formed 2 per cent of total gtk carried.[323]

A breakdown of the types of traffic transported on the West Moreton system in 2017–18 is shown in Figure 12. For the purposes of this analysis, the QCA has applied this data to the West Moreton Route.

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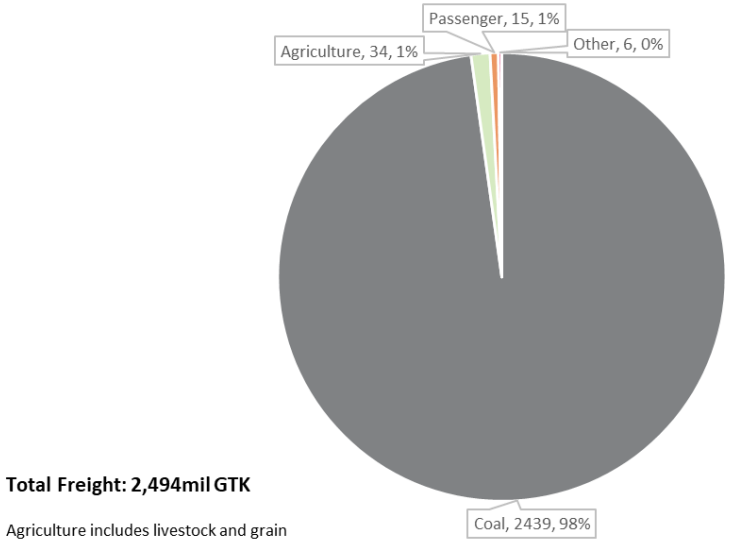
[320] Queensland Rail, sub. 33, pp. 35–36, paras 169–174.
[321] Queensland Rail, sub. 33, p. 22, para. 122.
[322] South West Producers, sub. 31, pp. 13–14.
[323] Queensland Rail, *2017–18 Annual Performance Report*, Queensland Rail Access Undertaking 1, December 2018, p. 7, https://www.queenslandrail.com.au/business/acccess/Compliance%20and%20reporting/2017-18%20QCA%20Annual%20Performance%20Report.pdf.

Figure 12 West Moreton system freight volumes by commodity, 2017–18 (million gtk)



Source: Adapted from Queensland Rail, 2017–18 Annual Performance Report, Queensland Rail Access Undertaking 1, December 2018, p. 7.

Competition from road transportation is not an effective constraint

The Queensland Rail data shows that the significant majority of freight carried on the West Moreton Route is coal (98 per cent of total gtk carried), which is transported in bulk form to the Port of Brisbane for export. The QCA considers that for bulk products, rail is the preferred transport mode (section 5.5.2). This is particularly the case where large volumes of product need to be transported—approximately 6.5 million net tonnes of coal were transported on the West Moreton Route service in 2017–18.[324]

In addition to rail having a natural cost advantage to transport bulk goods, coal miners in the West Moreton region are entirely dependent on the use of rail haulage, in particular the use of the West Moreton Route, to transport coal to the Port of Brisbane. This is due to the unique non-price constraints prohibiting the use of road haulage to transport coal (particularly large volumes of coal) through the Brisbane metropolitan region. For example, the South West Producers noted:

> In actual fact there are of course numerous non-price constraints on utilising road haulage including:
>
> (a) government policy, environmental, safety and social licence to operate issues which would make a large volume of trucking practically impossible; and
>
> (b) it is a condition of the QBH coal terminal's lease at the Port of Brisbane that it is prohibited from receiving coal by road haulage delivery without the Port of Brisbane's consent (which the South West Producers understand from previous discussions is highly unlikely to be given).[325]

Therefore, the QCA considers that participants in the West Moreton region coal tenements market rely upon access to the West Moreton Route service for the transport of coal products out of the tenements. Based on the evidence before it, the QCA considers that road transport cannot (and does not) compete with rail transport for the haulage of coal from the West

[324] Queensland Rail, *2017–18 Annual Performance Report*, Queensland Rail Access Undertaking 1, December 2018, p. 7.
[325] South West Producers, sub. 4, p. 15.

Moreton region coal tenements market. Therefore, competition from road transport operators does not provide an effective long-term constraint on Queensland Rail's ability and incentive to exercise market power against market participants in the West Moreton region coal tenements market.

7.5.2 Market factors and other constraints

Queensland Rail submitted that it is 'materially constrained by market and other factors in the provision of below rail services'.[326] These can be considered under two broad categories:

(1) whether market factors, including the volume uncertainty and customers' ability to pay, will constrain Queensland Rail's ability and incentive to exert market power

(2) whether Queensland Rail is constrained by other factors, such as:

  (a) its statutory obligations and position as a statutory authority

  (b) the threat of regulation or declaration.

Market factors

Stakeholder submissions

Queensland Rail submitted that, as outlined in its expert report, there is considerable uncertainty around future volumes of coal that will be transported on the West Moreton system, with the most likely scenarios within the next five years being:

- an increase to 9 mtpa across two mines with the development of the New Acland mine (high tonnage scenario), or
- a decrease to 2 mtpa with the closure of the New Acland mine (low tonnage scenario).[327]

If the high tonnage scenario eventuates, Queensland Rail said, for the reasons outlined in the HoustonKemp Expert Report, it still has a strong incentive to increase mining output. If the low tonnage scenario eventuates, Queensland Rail said 'ability to pay' constraints would suppress the access prices that could be imposed, and it would be incentivised to maximise demand:

> As described by HoustonKemp, in these circumstances, and given the West Moreton System would be underutilised, Queensland Rail would have very strong incentives to negotiate a price with the remaining mine that maximises utilisation and to promote competition in dependent markets so as to maximise demand for services on the West Moreton System …[328]

The South West Producers said there is no credible evidence that Queensland Rail has incentives to increase volumes, or is likely in the future to conduct itself in a way that incentivises volumes. For instance, the South West Producers said that in the past (at the time of the Wilkie Creek mine closure), Queensland Rail did not approach access pricing in this way:

> QR's response was to increase tariffs at the next available opportunity to seek to recover the same revenue from the remaining users. That is the opposite pricing response to what would be expected from a service provider incentivised to increase volume, who would presumably reduce tariffs to seek to attract and restore demand.[329]

[326] Queensland Rail, sub. 33, p. 22, para. 122.
[327] Queensland Rail, sub. 33, p. 35, para. 169.
[328] Queensland Rail, sub. 33, p. 35, paras 169–70.
[329] South West Producers, sub. 40, pp. 4, 24.

The South West Producers considered that 'it is theoretically true that the South West Producers' ability to pay means there is a limit to the prices which QR can charge', but they then noted that:

> the South West Producers experience is that when this constraint has actually arisen in the past, it has been largely ignored by QR, including at the cost of a previous West Moreton producer closing and noting that access pricing was a material factor in that decision.
>
> That either indicates that QR is not actually constrained in its behavior by this issue, or is simply unable to accurately determine the price point at which this constraint exists.[330]

As such, the South West Producers said Queensland Rail's incentives for most (if not all) of the declaration period will be to engage in monopoly pricing, not to increase volume. They argued that even if it is assumed that Queensland Rail has incentives to increase volumes, that initial incentive (once volume has been increased) will be replaced with an incentive to use the next contracting period to expropriate monopoly profits.[331]

QCA analysis

The QCA notes the current uncertainty regarding future volumes of coal to be transported on the West Moreton Route service.[332] Queensland Rail contended that in a future without declaration, where the 'low tonnage scenario' eventuates:

- it has strong incentives to maximise volumes, including 'to negotiate a price with the remaining mine that maximises utilisation and to promote competition in dependent markets so as to maximise demand for services on the West Moreton System'[333]
- it is constrained by customers' ability to pay under the low tonnage scenario, which 'suppress the access prices that can be imposed by Queensland Rail'.[334]

Queensland Rail's arguments regarding the low tonnage scenario on the West Moreton Route are similar to its statements regarding the presence of excess capacity on the rest of its network, for example:

> Queensland Rail has excess capacity on its network. A non-vertically integrated service provider with excess capacity has strong economic incentives to maximise utilisation on its network (so as to recover some proportion of its fixed costs) and thus has an incentive to promote (rather than limit) competition in downstream markets.
>
> As detailed in the HoustonKemp Expert Report, Queensland Rail has significant spare capacity on each of its systems. HoustonKemp observes that a consequence of spare capacity (in combination with the constraint imposed by market factors and, in the case of the West Moreton System under the low tonnage scenario, ability to pay constraints) is that an access seeker that can be charged any positive margin over the incremental cost of providing the service represents a contribution to Queensland Rail's substantial fixed cost base. As such, Queensland Rail has an incentive to maximise demand for its services (rather than price).[335]

The issue of excess capacity as a possible constraint on Queensland Rail's behaviour is discussed in detail in section 5.5.1. In particular, the QCA notes that in the low tonnage scenario on the

[330] South West Producers, sub. 16, p. 7.
[331] South West Producers, sub. 40, pp. 4, 25.
[332] See for example, Queensland Rail's submission in the 2020 draft access undertaking process: Queensland Rail, *DAU2 West Moreton System low volume coal reference tariff*, submission, November 2019, pp. 5, 29, https://www.qca.org.au/wp-content/uploads/2019/05/queensland-rail-revised-west-moreton-coal-pricing-proposal.pdf.
[333] Queensland Rail, sub. 33, p. 35, para. 170.
[334] Queensland Rail, sub. 33, p. 22, para. 122.
[335] Queensland Rail, sub. 33, p. 22, paras 118–19.

West Moreton Route service, the presence of spare capacity does not imply that Queensland Rail would not behave in a profit-maximising manner. This is particularly the case under the hold-up problem (discussed below in section 7.6.2). The nature of the sunk investments required to enter the West Moreton region coal tenements market means that once the investment is sunk, the miner's willingness to pay increases significantly, relative to that prior to its investment. This is because miners in the West Moreton region coal tenements market rely upon access to the West Moreton Route service for the export of their coal, and to realise the value of their investment. As such, a customer's ability to pay is not necessarily a constraint on Queensland Rail's ability and incentive to exercise market power under the low tonnage scenario. The dynamic nature of the hold-up problem means that the risk of hold-up arises even in the presence of excess capacity.

The QCA therefore considers that Queensland Rail would not be constrained in its ability or incentive to exercise market power by customers' ability to pay or market factors such as the presence of excess capacity under the low tonnage scenario.

Other factors

The QCA has considered whether Queensland Rail is constrained by other factors, including its statutory obligations and the threat of declaration. These issues were raised by Queensland Rail broadly and have been discussed previously by the QCA in section 5.5.3:

- Queensland Rail's statutory obligations and position as a statutory authority
- the threat of regulation or declaration.

To the extent that these matters do not raise additional or different concerns specific to the West Moreton Route service, the QCA considers the same reasoning and conclusions apply here.

As such, the QCA's view is these factors would not effectively constrain Queensland Rail from exercising market power in a way that could adversely affect competition in dependent markets, including the West Moreton region coal tenements market.

7.5.3 Conclusion

Based on the analysis above, the QCA considers that Queensland Rail does have the ability and incentive to exercise market power in the dependent West Moreton region coal tenements market in a future without declaration.

7.6 Competition in the West Moreton region coal tenements with and without declaration

7.6.1 A future with declaration

The QCA considers that in a future with declaration, participants in the West Moreton region coal tenements market would be able to gain access to the below-rail service on reasonable terms and conditions, due to ongoing regulatory oversight and the protections provided by the access regime in Part 5 of the QCA Act.

The South West Producers referred to a range of issues that they described as 'protections which assist with promoting and providing the opportunity for competition which currently exist as a result of declaration':

> (a) the QCA is responsible for setting [West Moreton] system coal reference tariffs and has a clearly established methodology for setting those tariffs at an efficient level…

(b) the QCA is responsible for setting reasonable standard terms of access – as per the standard access agreement terms;

(c) a transparent queueing process which provides an even playing field for all access seekers;

(d) a more transparent operating regime – including through the operating requirements manual;

(e) the disclosure and reporting regime – which provides transparency and accountability and should assist in improving performance and informing access negotiations;

(f) the QCA Act and undertaking provide rights to bring access disputes where an access seeker cannot reach agreement with QR on obtaining access to the QR Network;

(g) other protections that the QCA Act provides for declared services generally, such as obligations to:

(i) negotiate access requests in good faith

(ii) try to meet the reasonable requirements of users; and

(iii) the prohibition against preventing or hindering access or use of the services.[336]

The South West Producers said these protections are critical to provide a credible constraint on Queensland Rail's use of market power and provide a guaranteed reasonable position for obtaining access to all new entrants. Even for non-reference services, or disputes over non-pricing terms, the ability to have the QCA arbitrate access disputes is a critical constraint that removes the potential for the exercise of monopoly power.[337]

The QCA considers the regulatory framework in a future with declaration is an effective long-term constraint on Queensland Rail's ability and incentive to exercise market power. These protections will provide certainty to a potential new market entrant (or an existing tenement holder approaching renewal of its existing rail agreements or mining authorities) that access to the service would be provided on reasonable terms and conditions now and into the future with declaration. In particular, the regulatory regime in a future with declaration establishes a transparent statutory process within which terms and conditions of access can be negotiated (including to address sunk investments and mitigate the risk of hold-up for access seekers). Additionally, declaration can maintain an appropriate balance between the legitimate interests of the service provider and access seekers/users in the presence of sunk investments. Mitigating the risk of hold-up is likely to be a critical factor in supporting efficient entry to and efficient participation in the West Moreton region coal tenements market, thereby materially promoting competition.

7.6.2 A future without declaration: the hold-up problem

As a business, Queensland Rail has an incentive to maximise profits. In a future with declaration, its ability and incentive to exercise its market power in order to maximise profits will be constrained by the regulatory regime. The QCA considers that in a future without declaration Queensland Rail would not face any effective long-term constraints on its ability and incentive to exercise market power in order to maximise profits. In particular, the QCA considers that access arrangements applied by Queensland Rail will not act as an effective constraint.

It is in this environment that market participants will face decisions to enter or operate in the West Moreton region coal tenements market in a future without declaration. In particular, a

[336] South West Producers, sub. 4, p. 28.
[337] South West Producers, sub. 40, p. 39.

new entrant to the West Moreton region coal tenements market will have to incur significant sunk costs. Sunk costs include the costs of exploration and preparatory activities prior to developing or expanding a mine, which are site-specific to the tenement. Sunk costs also include the costs of developing the mine itself—the underlying value of the mine, once developed, resides in its potential output, and is site-specific. The presence of sunk investments gives rise to the 'hold-up problem' commonly described in the economics literature.

Participating in the coal tenements market requires considerable investment in exploration, development and production over time, given mines are long-life projects that require significant upfront development costs. A typical coal mine has a 10- to 30-year useful life, compared with the 10-year typical term of a rail access agreement; as a result, at some point during the useful life of the coal tenement, it can be expected that the below-rail access agreement will be due for renewal.[338] Therefore, when a potential new market entrant is considering investment, it will face the prospect that, having incurred these sunk costs, Queensland Rail will have the ability to exercise market power in setting access prices and other terms and conditions of access at the time of contract renewal.

The costs of accessing below-rail infrastructure, along with expected mine revenue and operating costs, are critical to the valuation of coal tenements and to the decision to invest, or continue to invest, in this market (at all stages, including exploration, development and production). Transport costs are particularly important for coal mines from the West Moreton region, as coal miners in the West Moreton region are entirely dependent on the use of rail haulage to transport coal to the Port of Brisbane due to unique non-price constraints prohibiting the use of road haulage to transport coal through the Brisbane metropolitan region. For example, based on the West Moreton reference tariff from Queensland Rail's 2016 access undertaking, the costs of below-rail access accounts for as much as 10 to 20 per cent of the final free-on-board price of export thermal coal.[339] Therefore, below-rail costs are a material component of the decision-making process for entry into or operations in the market.

At the time of contract renewal, an exercise of market power by Queensland Rail against a miner may arguably be regarded as a transfer of rents between parties, with little effect on competition. However, the critical issue is that in the first period, a miner can foresee the risk that any sunk investments it makes will be exposed to the risk of expropriation by the monopolist in subsequent periods.

The presence of this risk of hold-up means that socially optimal investments will not proceed, or there will be an underinvestment. Queensland Rail may have an incentive to solve this hold-up problem ex ante—for example, it may be profit maximising for Queensland Rail to sell unused network capacity to new or renewing users, assuming it is not constrained to charging a uniform price.[340] However, as will be discussed below, the QCA's view is that it will be difficult for Queensland Rail to credibly commit ex ante to solve the hold-up problem (for example through a long-term contract). The problem is that events could develop in the future where the

[338] South West Producers, sub. 4, p. 35; sub. 31, p. 14.

[339] This calculation is based on the reference tariffs applicable from 19 July 2018 to 30 June 2019, for a reference train service departing Cameby Downs mine, travelling fully loaded on the 'down' train path and empty on the return 'up' train path: see https://www.queenslandrail.com.au/business/acccess/Tariffs/4.%20Ref%20Tariffs%202019%20RE%201.0%20(Queensland%20Rail).pdf.

[340] For instance, under the 2016 access undertaking, Queensland Rail is not required to charge a uniform price on its systems, except for the West Moreton system, where there is a reference tariff for coal trains. On the non-West Moreton systems, prices are negotiated between Queensland Rail and the customers seeking below-rail access.

benefits to Queensland Rail of expropriating the value of the investment at that later time exceed the benefits of continuing to abide by status quo arrangements. The QCA considers that it is this risk—that significant sunk investments made by miners into their mining tenements will be expropriated—that will lead to a material adverse effect on competition in the West Moreton region coal tenements market in a future without declaration (the QCA's approach to the concept of materiality is discussed below).

The ability of Queensland Rail to exercise market power in future contracting periods creates a significant degree of uncertainty around material terms (such as pricing and terms of access) for potential market participants at the time they are considering investment. This is likely to adversely affect the value of the tenements in this market, and raise the hurdle rate required to justify an investment in a tenement. The QCA considers that this risk is sufficiently material that the miner may be deterred from entering the market in the first place. This view is supported by the South West Producers who submitted that the uncertainty around terms of access in a future without declaration means that:

> it is impossible to see how producers would incur costs in exploration and development [of a tenement] in the face of such limited certainty of costs of the West Moreton coal rail access service and the knowledge that they can be held hostage to monopoly pricing at the time of seeking access. It is highly likely that the prospect of new entry would be eliminated.[341]

Existing tenement holders would also face higher risks in a future without declaration, with greater uncertainty around future terms of access on the expiry of existing contracts, given that there are no evergreen renewal clauses in existing contracts. Therefore, the QCA is concerned that in a future without declaration, existing tenement holders may begin to delay taking efficient actions in their existing tenements in anticipation of the possibility of such investments may be expropriated.

Thus, the QCA is concerned that in a future without declaration, all participants in the West Moreton region coal tenements market will face uncertainties relating to material price and non-price terms for access to below-rail services on the West Moreton Route, particularly at the time of contract renewal, and that these uncertainties will deter efficient entry and efficient participation across the West Moreton region coal tenements market.

Queensland Rail's submission that there is no hold-up problem

In response to the QCA's analysis of the hold-up problem in the QCA draft recommendation, Queensland Rail argued that no hold-up problem arises in respect of Queensland Rail's services provided using the North Coast Line, Mount Isa Line and West Moreton system.[342] Queensland Rail's submissions on this issue are discussed in the North Coast Route service analysis (section 5.6.3). The South West Producers disagreed with each of the points raised by Queensland Rail, and argued that they did not address the hold-up problem.[343]

Queensland Rail's arguments are not specific to the West Moreton Route service, and instead apply to each of the services provided using the North Coast Route, Mount Isa Route and West Moreton Route. As such, to avoid repetition, the QCA refers to its detailed consideration of the arguments raised by Queensland Rail in section 5.6.3. In summary, the QCA considers that the issues raised by Queensland Rail are unlikely to be sufficient to address the risk of hold-up in a

[341] South West Producers, sub. 16, p. 14.
[342] Queensland Rail, sub. 33, p. 39, para. 191–92; sub. 33, attachment B, pp. 13–14.
[343] South West Producers, sub. 40, pp. 20–25.

future without declaration. A further discussion of the economic literature relating to the hold-up problem is provided in Appendix A.

7.6.3 Promote a material increase in competition

Materiality

In the case of the West Moreton Route service, the QCA considers that access (or increased access) to the service, on reasonable terms and conditions, as a result of declaration would promote a material increase in competition in the West Moreton region coal tenements market. The QCA's approach to the concept of materiality is discussed in section 5.6.4.

A decision to enter (or re-invest in) the West Moreton region coal tenements market will involve substantial sunk investments. In a future without declaration, the presence of sunk investments gives rise to the hold-up problem. The QCA considers that the risk of hold-up in the presence of substantial sunk investments is sufficiently material that it is likely to discourage efficient firms from entering the market. In contrast, the QCA considers that declaration, and the associated access regime, is able to credibly constrain Queensland Rail's ability and incentive to exercise market power and address the hold-up risk.

The QCA considers that the credible constraint on the risk of hold-up in the presence of substantial sunk investments will promote a non-trivial, material improvement in the environment for competition in the West Moreton region coal tenements market. The environment for competition in a future with declaration is likely to promote efficient entry (and efficient investment) by all market participants, such that competitive outcomes in the West Moreton region coal tenements market are materially more likely to occur.

If efficient entry is likely to be promoted in a future with declaration (compared to a future without declaration), the QCA considers that this would indicate that access (or increased access) to the service, on reasonable terms and conditions, as a result of declaration would promote an increase in competition that is material. In this way, the QCA is satisfied that access as a result of declaration would promote a material increase in competition in the West Moreton region coal tenements market.

Conclusion on the hold-up problem in the West Moreton region coal tenements market

In the case of the West Moreton Route service, the QCA considers that the uncertainties facing market participants in a future without declaration would affect all participants across the market, including more efficient firms. Conversely, the QCA considers that the certainties and protections offered by the access regime in a future with declaration would promote efficient entry and efficient participation in the West Moreton region coal tenements market.

The QCA considers that in a future without declaration, Queensland Rail will not face any effective long-term constraints on its ability and incentive to exercise market power in relation to access terms. In a future without declaration, there will be an imbalance of negotiating power between Queensland Rail and access seekers/users in the presence of sunk investments. The QCA acknowledges that commercial firms face a range of risks and uncertainties in decision-making on a daily basis. However, an imbalance in bargaining power could inhibit the ability of access seekers/users to effectively manage risks, including the risk of hold-up, which have a significant effect on the expected profitability of entry into (and operations within) the market. The presence of these risks, and an imbalance in the ability of access seekers/users to address these risks in a future without declaration, are likely to deter efficient entry or efficient investments by market participants.

In contrast, the QCA considers that a future with declaration provides a transparent statutory process under the QCA Act[344] within which terms and conditions of access can be negotiated. This process provides market participants with greater certainty that access will be provided on reasonable terms and conditions, including to address sunk investments and mitigate the risk of hold-up for access seekers. As such, the QCA considers that the protections offered by the access regime in a future with declaration will lead to a material improvement in the environment for competition in the West Moreton region coal tenements market, compared to a future without declaration.

7.7 Conclusion

The QCA considers that access (or increased access), on reasonable terms and conditions, as a result of a declaration of the West Moreton Route service, would promote a material increase in competition in the West Moreton region coal tenements market. This is because the opportunities and environment for competition in that market will be materially enhanced in a future with declaration, given the constraints declaration imposes on Queensland Rail's ability and incentive to exercise market power, compared to a future without declaration.

The QCA considers that criterion (a) is satisfied with respect to the West Moreton Route service, in relation to the dependent West Moreton region coal tenements market.

[344] The provisions of the QCA Act can only be changed by parliament.

8 CRITERION (A)—THE SOUTH WESTERN ROUTE SERVICE, THE WESTERN ROUTE SERVICE AND THE CENTRAL WESTERN ROUTE SERVICE

8.1 Parts of the existing declared service and the dependent markets

The QCA has assessed the following three parts of the existing declared service and the following dependent markets in respect of each:

Table 6 The South Western, Western and Central Western Route services and the dependent markets

Dependent market	*Part of the existing declared service upon which the market is dependent*	*Facility for the relevant part of the service*
The above-rail freight haulage market on the Central Western Route	Central Western Route service, that is use of the Central Western Route	Central Western system North Coast Line that interconnects the Central Western system and the Metropolitan system and the Port of Mackay Metropolitan system (together, the Central Western Route)
The above-rail freight haulage market on the Western Route	Western Route service, that is use of the Western Route	Western system West Moreton system that interconnects the Western system and Metropolitan system Metropolitan system (together, the Western Route)
The above-rail freight haulage market on the South Western Route	South Western Route service, that is use of the South Western Route	South Western system West Moreton system that interconnects the South Western system and Metropolitan system Metropolitan system (together, the South Western Route) (together, the Central Western Route, the Western Route and the South Western Route are referred to as 'the agricultural systems')

The QCA has identified and assessed three separate dependent markets, as shown in the table above. Similar issues arise with respect to each of the three dependent markets (e.g. the type of goods carried as freight, the presence of above- and below-rail subsidies). To reduce repetition, the QCA has set out in this chapter a single analysis that applies to each of these dependent markets. Accordingly, the Central Western Route, the Western Route and the South Western

Route are referred to together as the 'agricultural systems' in this chapter, however the analysis should be understood to apply to each service in the context of its specific dependent market.

In this final recommendation, the QCA has revised its analysis of criterion (a) in relation to the agricultural systems. In the draft recommendation, the QCA noted that there was a lack of stakeholder submissions in relation to criterion (a) for the agricultural systems, and based its analysis on the limited publicly available information. In response to the QCA's draft recommendation, several users of the agricultural systems made submissions to the QCA. In addition, in its submission in response to the QCA's draft recommendation, Queensland Rail has substantially increased both the volume and detail of its arguments. In considering this substantial volume of new information, the QCA has revised its analysis of criterion (a) relating to the agricultural systems.

8.2 Geographical description of the South Western, Western and Central Western Routes

The South Western system extends south-west from Toowoomba to Thallon via Warwick. It includes the branch lines Wyreema to Millmerran, and Warwick to Wallangarra. The South Western system adjoins the West Moreton system at Toowoomba.[345] From Toowoomba, users of the South Western system traverse the West Moreton system and the Metropolitan system to access the Port of Brisbane, from which goods transported on the South Western system may be exported.

The Western system extends west from Miles to Quilpie, and includes the branch lines Westgate to Cunnamulla, Dalby to Meandarra (Glenmorgan), Miles to Wandoan and Tycanba to Jandowae. The Western system adjoins the West Moreton system at Miles. From Miles, users of the Western system may traverse the West Moreton system and the Metropolitan system to access the Port of Brisbane, or (in the case of livestock) to processors based in the greater Brisbane region.[346]

The Central Western system extends west from Nogoa to Winton via Emerald, and includes the Emerald to Clermont branch line.[347] From Nogoa, users of the Central Western system may traverse Aurizon Network's Blackwater system to connect onto the North Coast Line (and further onto the Metropolitan system), where users may access various export ports on Queensland's eastern coastline.

8.3 Dependent markets

The QCA considers that a relevant dependent market on each of the Central Western Route, the Western Route and the South Western Route (together, the agricultural systems) is the above-rail freight haulage market on that respective route—that is, the market for the transportation of freight by rail on each identified route.

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[345] Queensland Rail, *South Western System Information Pack*, October 2016, p. 5, https://www.queenslandrail.com.au/business/acccess/Documents/South%20Western%20System%20Information%20Pack%20-%20Issue%203%20-%20October%202016.pdf.

[346] Queensland Rail, *Western System Information Pack*, October 2016, p. 5, https://www.queenslandrail.com.au/business/acccess/Documents/Western%20System%20Information%20Pack%20-%20Issue%203%20-%20October%202016.pdf.

[347] Queensland Rail, *Central Western System Information Pack*, October 2016, p. 5, https://www.queenslandrail.com.au/business/acccess/Documents/Central%20West%20System%20Information%20Pack%20-%20Issue%203%20-%20October%202016.pdf.

Watco and GrainCorp considered that an above-rail freight haulage market is a dependent market of the services on the South Western, Western and Central Western systems.[348] Queensland Rail and other stakeholders did not comment on possible dependent markets of these systems.

GrainCorp identified other possible dependent markets on these systems, including 'markets for storage, containerisation and trading of grain'.[349] However, GrainCorp focused its submission on the 'above-rail markets' and did not discuss these other markets in detail.

Other dependent markets include the downstream end product markets for the goods hauled on the agricultural systems; however, these markets are varied, given the diverse range of freight carried on these systems. The QCA has not examined these markets in detail due to limited publicly available information on these markets and the absence of specific stakeholder submissions.

Notwithstanding the existence of other possible markets, the QCA considers that a major relevant dependent market on each of the agricultural systems is the above-rail freight haulage market on each respective route. Consequently, the analysis in this chapter focuses on the above-rail freight haulage markets.[350]

8.4 Above-rail freight haulage markets on the agricultural systems

8.4.1 The markets

The market for above-rail freight haulage is the market in which primary producers or freight forwarders/logistics handlers contract with operators of rollingstock to haul freight via rail from an origin to a destination point along each of the agricultural systems.

Figure 13 illustrates the above-rail freight haulage market on each of the agricultural systems.

Figure 13 Above-rail freight haulage market on each of the agricultural systems

In the above-rail freight haulage markets on the agricultural systems, the suppliers are the operators of rollingstock. Aurizon Operations and Linfox currently provide above-rail freight haulage services on the agricultural systems, and a new entrant, Watco, has commenced above-rail freight haulage services on the agricultural systems from late 2019.[351]

The customers in the above-rail freight haulage markets on the agricultural systems include primary producers (e.g. farmers and graziers); however, in practice, the customers are typically

[348] Watco, sub. 48, p. 4; GrainCorp, sub. 52, p. 6.
[349] GrainCorp, sub. 52, p. 7.
[350] In doing so, the QCA has focused on traffic with origins or destinations on the Central Western, Western or South Western systems (as the case may be).
[351] GrainCorp, sub. 52, p. 5; Watco, sub. 48, p. 4. For more detail, see section 8.4.4.

freight forwarders/logistics handlers (e.g. GrainCorp is a bulk grain handler) who are able to consolidate and coordinate produce from various primary producers in order to meet the quantity of product required to fill a train-load. The Queensland Parliament Transport, Housing and Local Government Committee noted the complexity of agricultural supply chains:

> Agricultural and livestock supply chains are characteristically complex with multiple participants who have indiscrete roles. Some examples of this complexity are provided below:
>
> - Large meat processors act as both the freight forwarder (consigning trainloads of cattle for livestock producers) and large scale freight generators (packaged meat) and therefore above rail customers
> - Large grain traders act as freight forwarders, booking rail space from other grain traders or merchants and some operate their own terminals.[352]

8.4.2 The nature of the traffic on the agricultural systems

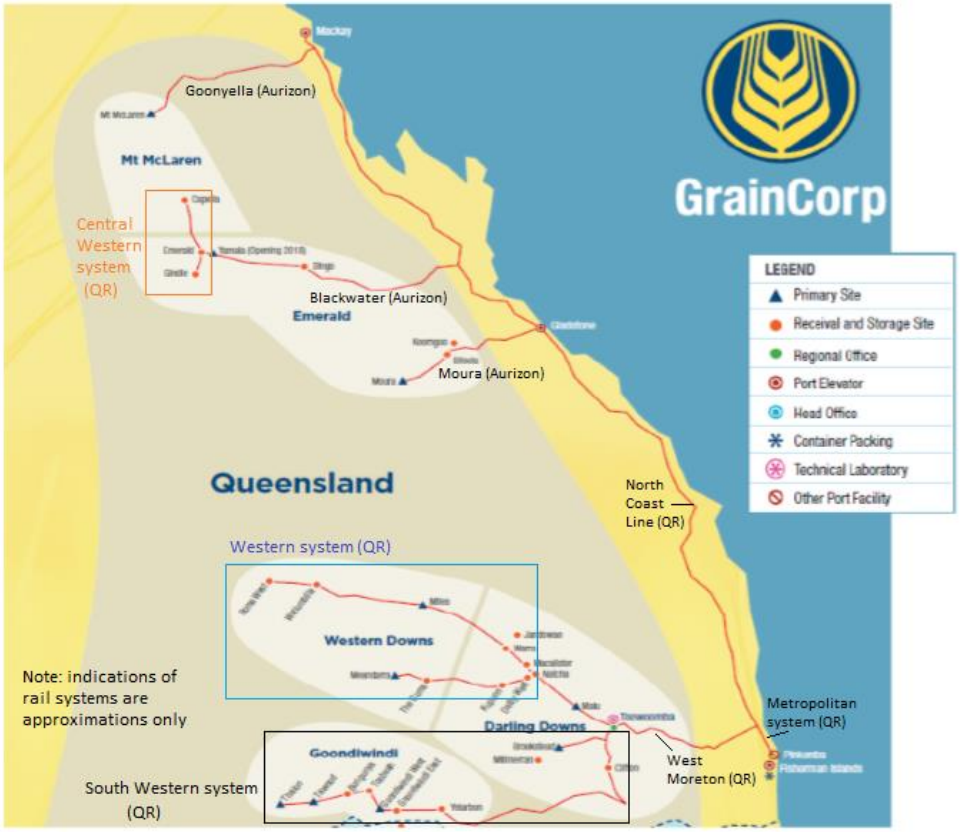
The agricultural systems are primarily used to transport agricultural products, particularly grain and livestock.

South Western Route traffic

The South Western system primarily carries grain. No freight is carried on the Wallangarra branch (from Warwick to Wallangarra).[353] Figure 14 shows a map of GrainCorp's grain operations on Queensland Rail's systems, including the South Western, Western and Central Western systems.[354]

[352] Transport, Housing and Local Government Committee, *Rail freight use by the agriculture and livestock industries*, report no. 45, Queensland Parliament, June 2014, p. 82.
[353] Queensland Rail, sub. 33, attachment A, p. 4.
[354] Indications of the rail systems have been overlaid by the QCA onto the original GrainCorp map.

Figure 14 GrainCorp's Queensland operations



Source: Adapted from GrainCorp, sub. 52, p. 4.

Grain on the South Western system is typically transported to the bulk export terminals at the Port of Brisbane (Fisherman Islands) and Pinkenba (also located in Brisbane) for export.[355] GrainCorp noted that:

> GrainCorp relies on access to the QR and Aurizon rail networks to transport grain to its export terminals. Grain for domestic consumption is not transported over these rail networks.[356]

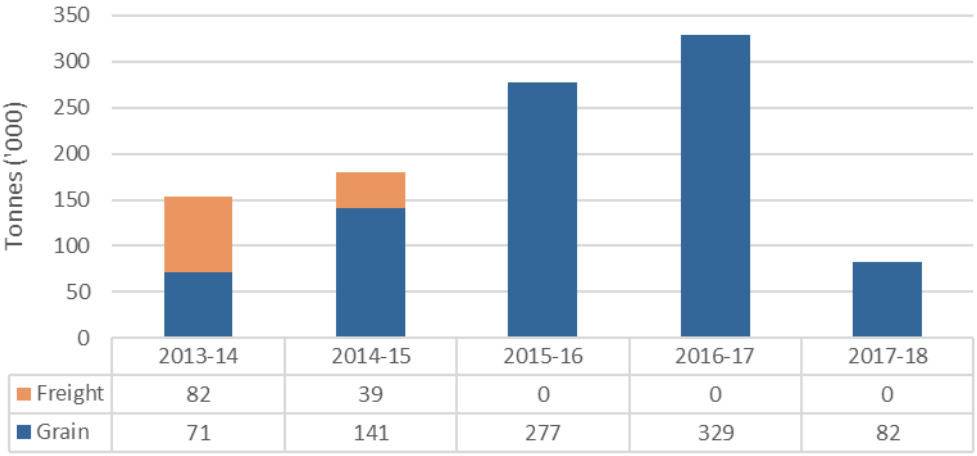
Figure 15 shows the freight volumes on the South Western system annually from 2013–14 to 2017–18.[357]

[355] GrainCorp, sub. 52, p. 4.

[356] GrainCorp, sub. 52, p. 5.

[357] Queensland Rail reports disaggregated volume data for various sections of the South Western system (e.g. the Toowoomba to Warwick section, the Warwick to Goondiwindi section etc). To avoid double-counting of volumes, the data shown represents the maximum throughput on any individual section of the system. For the South Western system, this is the data for the Toowoomba to Warwick section, as due to the nature of the South Western Route, all traffic must travel through the Toowoomba to Warwick section of the system to/from the Port of Brisbane.

Figure 15 South Western system freight volumes by commodity and year ('000 tonnes)



	2013-14	2014-15	2015-16	2016-17	2017-18
Freight	82	39	0	0	0
Grain	71	141	277	329	82

Adapted from Queensland Rail, sub. 33, attachment A, p. 7.

There is substantial variation in grain freight volumes on the South Western system from year to year. This is due to seasonal variations in agricultural production, including a combination of supply-side factors (e.g. weather) and demand-side factors (e.g. export prices), which determine the volume of grain produced and exported each year:

> Grain export volumes vary from year to year depending on weather and market conditions, but on average around 2 million tonnes per annum are exported out of Queensland, with approximately 40% of this transported by rail to export facilities.[358]

Additionally, the freight volumes for 2013–14 and 2014–15 may be attributable to containerised cotton shipments for export, which have ceased:

> There has been significant change in the transport market in the South West, with all cotton movements from the South West switching from rail to road from 2014-15.[359]

Western Route traffic

The Western system carries agricultural products, primarily grain and livestock.[360] Figure 16 shows the freight volumes on the Western system annually from 2013–14 to 2017–18.[361]

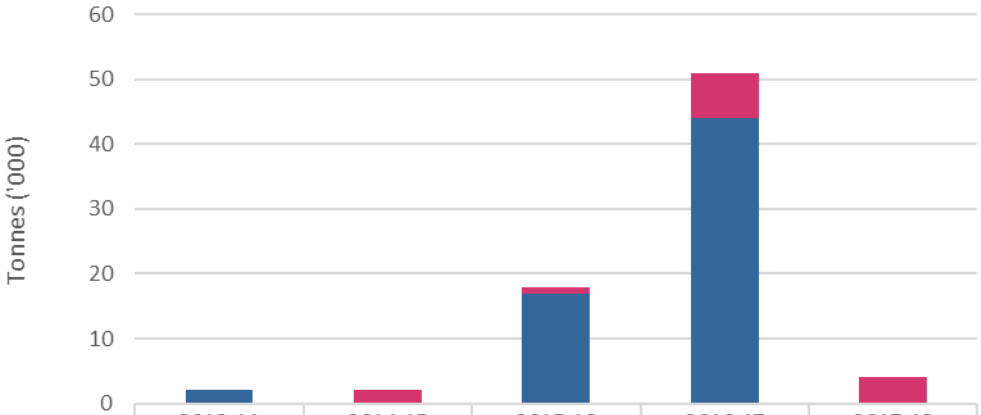
[358] GrainCorp, sub. 52, p. 11.

[359] Queensland Rail, sub. 33, p. 37, para. 180.4; Transport, Housing and Local Government Committee, *Rail freight use by the agriculture and livestock industries*, report no. 45, Queensland Parliament, June 2014, p. 18.

[360] Queensland Rail, sub. 33, attachment A, p. 4.

[361] Queensland Rail reports disaggregated volume data for various sections of the Western system (e.g. the Miles to Roma section and the Roma to Charleville section). To avoid double-counting of volumes, the data shown represents the maximum throughput on any individual section of the system. For the Western system, this is the data for the Miles to Roma section.

Figure 16 Western system freight volumes by commodity and year ('000 tonnes)



	2013-14	2014-15	2015-16	2016-17	2017-18
Livestock	0	2	1	7	4
Grain	2	0	17	44	0

Adapted from Queensland Rail, sub. 33, attachment A, p. 8.

As with the South Western system, it can be seen that there is substantial variation in grain volumes on the Western system from year to year. The QCA understands that grain on the Western system is typically transported to the Port of Brisbane (Fisherman Islands) for export.[362]

Additionally, livestock rail services operate on the Western system. These services are operated by Aurizon Operations through the Livestock Transport Services Contract with the Queensland Government. According to the Department of Transport and Main Roads (TMR):

> These rail services transport large herds of cattle from regional hubs across the State to processing on Queensland's eastern coast. The contract supports non-commercial livestock services and ensures a minimum standard is offered to the beef industry.
>
> Livestock rail services operate in:
>
> - south west region - 27 services annually …[363]

Livestock on the Western system are typically transported to the abattoirs at Dinmore (west of Brisbane) and Beenleigh (south of Brisbane).[364] The operation of the Transport Services Contract subsidies on the agricultural systems in the context of criterion (a) is discussed in section 8.4.3.

Central Western Route traffic

The Central Western system carries grain from the Clermont branch, cattle from Winton, Longreach and Clermont, and small volumes of intermodal freight (food and groceries, retail products, industrial products and agricultural inputs) into Emerald, Alpha, Barcaldine and Longreach.[365]

[362] GrainCorp, sub. 52, p. 4.

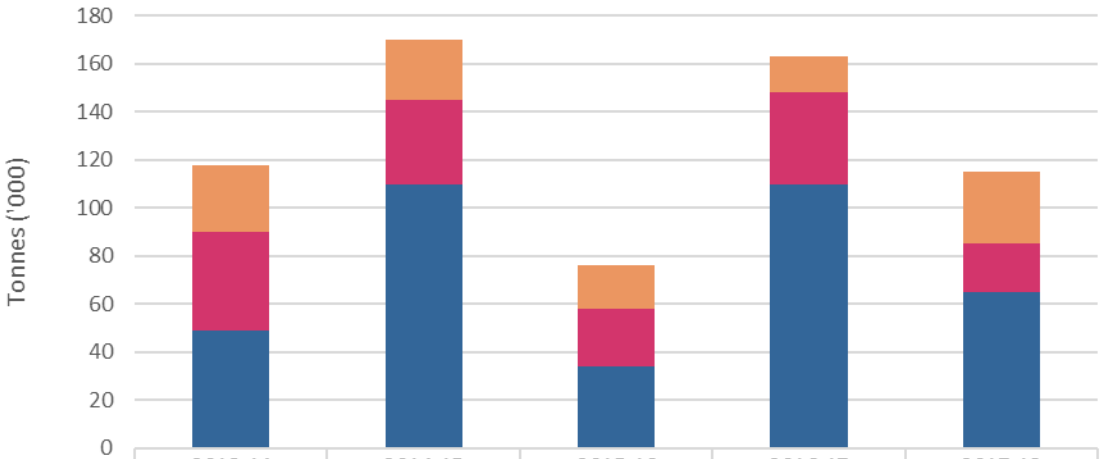
[363] Department of Transport and Main Roads, Rail Transport Contracts and Agreements, Queensland Government, 2019, accessed 25 July 2019, https://www.tmr.qld.gov.au/business-industry/Transport-sectors/Rail-services-and-infrastructure/Rail-Transport-Contracts-and-Agreements.

[364] Transport, Housing and Local Government Committee, *Rail freight use by the agriculture and livestock industries*, report no. 45, Queensland Parliament, June 2014, p. 72.

[365] Queensland Rail, sub. 33, attachment A, p. 5; Linfox, sub. 50, para. 3.5.

Figure 17 shows the freight volumes on the Central Western system annually from 2013–14 to 2017–18.[366]

Figure 17 Central Western system freight volumes by commodity and year ('000 tonnes)



	2013-14	2014-15	2015-16	2016-17	2017-18
Freight	28	25	18	15	30
Livestock	41	35	24	38	20
Grain	49	110	34	110	65

Adapted from Queensland Rail, sub. 33, attachment A, p. 13.

As with the South Western and Western systems, it can be seen that there is substantial variation in grain volumes on the Central Western system from year to year. The QCA understands that the grain on the Central Western system is typically transported to the Port of Gladstone and/or the Port of Mackay for export.[367]

Livestock rail services also operate on the Central Western system. As with the Western system, these livestock services are operated by Aurizon Operations through the Livestock Transport Services Contract with the Queensland Government. According to TMR:

> Livestock rail services operate in:
>
> - south west region – 27 services annually
> - central west region – 184 services annually
> - north west region – 114 services annually.[368]

Livestock on the Central Western system may be transported to the abattoirs in Brisbane or in Rockhampton for processing.[369] Queensland Rail announced a Yeppoon (Rockhampton area) rail line upgrade in its 2017–18 Annual and Financial Report:

> Restoring the rail line will strengthen Rockhampton's beef industry and create an additional processing plant in the region, broadening options for regional producers and providing an

[366] Queensland Rail reports disaggregated volume data for various sections of the Central Western system (e.g. the Nogoa to Emerald, Emerald to Longreach, and Longreach to Winton sections). To avoid double-counting of volumes, the data shown represents the maximum throughput on any individual section of the system. For the Central Western system, this is the data for the Nogoa to Emerald section.

[367] GrainCorp, sub. 52, p. 4.

[368] Department of Transport and Main Roads, Rail Transport Contracts and Agreements, Queensland Government, 2019.

[369] Transport, Housing and Local Government Committee, *Rail freight use by the agriculture and livestock industries*, report no. 45, Queensland Parliament, June 2014, p. 72.

> opportunity to attract new producers. The upgraded rail line will unlock access to the abattoir, allowing livestock to be transported on rail directly from the north west and central west regions of Queensland to Rockhampton for processing.[370]

Additionally, general freight services operate on the Central Western system. These general freight services are operated by Linfox through the Regional Freight Transport Services Contract with the Queensland Government. According to TMR:

> This contract ensures regional communities can access freight services at subsidised freight rates and ensures a minimum standard of service is delivered.
>
> The contract supports about 2,400 road and rail freight services each year in regional Queensland:
>
> - south west region: approximately 1,560 road freight services each year
> - central west region: 260 road freight services and 208 rail freight services on the Central West Line each year
> - north west region: 364 road freight services each year.
>
> TMR transferred the contract to Linfox in early-2019, after the previous operator, Aurizon, sold Linfox its Queensland intermodal business, which delivers contracted regional freight services.[371]

Linfox describes the types of goods it transports on the Central Western system:

> Linfox transports food & grocery, liquor, retail products, industrial products and agricultural inputs for its customers on its train services into this region [central west Queensland] to locations such as Longreach, Barcaldine, Emerald and Alpha.[372]

The QCA understands this general freight task on the Central Western system is typically carried as intermodal containerised freight, similar to that on the North Coast Line (section 5.5.2).[373]

8.4.3 Transport Service Contract subsidies

The Queensland Government provides subsidies for the delivery of both above-rail services and below-rail services in Queensland. These subsidies are provided through the TSCs, which are managed on behalf of the Queensland Government by TMR.[374]

For the purposes of the QCA's analysis, the subsidies can be generally classified into four categories:

(1) delivery of below-rail services by Queensland Rail

(2) delivery of above-rail passenger services by Queensland Rail

(3) provision of above-rail general freight services by an above-rail operator (currently Linfox—post-2019; formerly Aurizon Operations—pre-2019)

(4) provision of above-rail livestock (cattle) services by an above-rail operator (currently Aurizon Operations).

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[370] Queensland Rail, *Annual and Financial Report 2017–18*, September 2018, p. 41, accessed 25 July 2019, https://www.queenslandrail.com.au/about%20us/Documents/Queensland%20Rail%20-%20Annual%20and%20Financial%20-%20Report%20-%202017-18.pdf.

[371] Department of Transport and Main Roads, Rail Transport Contracts and Agreements, Queensland Government, 2019

[372] Linfox, sub. 50, para. 3.5.

[373] Transport, Housing and Local Government Committee, *Rail freight use by the agriculture and livestock industries*, report no. 45, Queensland Parliament, June 2014, pp. 71–72.

[374] Transport, Housing and Local Government Committee, *Rail freight use by the agriculture and livestock industries*, report no. 45, Queensland Parliament, June 2014, pp. 71–72.

(1) Subsidies for the delivery of below-rail services by Queensland Rail

Queensland Rail receives revenue under the Rail Transport Service Contract for the delivery of below-rail services and the maintenance of the network infrastructure across the Queensland Rail network.[375]

Below-rail services are the activities associated with the provision and management of rail infrastructure, including the construction, maintenance and renewal of rail infrastructure assets, and the network management services required for the safe operation of train services, including train control services and the implementation of safe working procedures.[376]

The Queensland Parliament Transport, Housing and Local Government Committee describes this subsidy as an infrastructure subsidy:

> Queensland Rail receives funds from the State Government through a Rail Transport Services Contract for investment and maintenance in below-rail assets. The key purpose of the Contract is to ensure that the state of the infrastructure network is fit for service for above-rail operators. The subsidy is provided for the gap between access fees and the cost of maintenance.[377]

Queensland Rail is required under its 2016 access undertaking to publish financial statements annually for the below-rail services provided by Queensland Rail.[378] The latest below-rail financial statement shows that in 2017–18 Queensland Rail received approximately $567 million in TSC subsidies for the delivery of below-rail services on the Queensland Rail network.[379] These subsidies were applied for below-rail services on each of Queensland Rail's systems (except for the Mount Isa Line), with approximately 0.13 per cent of the subsidy allocated to below-rail services on the West Moreton system, 27 per cent for the North Coast Line and 73 per cent for the rest of the network.[380] The Mount Isa Line is regarded as commercial, so it does not receive any below-rail subsidy—the maintenance and upgrades on the Mount Isa Line are solely funded from the access fees paid by above-rail operators/miners who use that service.[381]

(2) Subsidies for the delivery of above-rail passenger services by Queensland Rail

Queensland Rail also receives revenue under the Rail Transport Service Contract for the delivery of above-rail passenger services, including commuter Citytrain services on the Metropolitan

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[375] Under the Rail Transport Service Contract, below-rail services provided on the regional infrastructure are accounted for separately from below-rail services provided on the Brisbane Metropolitan network; however, this distinction is not critical to the QCA's analysis.

[376] Queensland Rail, *Financial Statements for the Year Ended 30 June 2018 - Below Rail Services Provided by Queensland Rail*, December 2018, p. 3, accessed 30 July 2019, https://www.queenslandrail.com.au/business/acccess/Compliance%20and%20reporting/2017-18%20Below%20Rail%20Financial%20Statements.pdf.

[377] Transport, Housing and Local Government Committee, *Rail freight use by the agriculture and livestock industries*, report no. 45, Queensland Parliament, June 2014, p. 43.

[378] Queensland Rail, *Access Undertaking 1*, approved by the QCA 11 October 2016, p. 46, https://www.queenslandrail.com.au/business/acccess/Access%20Undertaking%20and%20related%20documents/Queensland%20Rail%20Access%20Undertaking%201%202016.pdf.

[379] Queensland Rail, *Financial Statements for the Year Ended 30 June 2018—Below Rail Services Provided by Queensland Rail*, December 2018, p. 4.

[380] The 'rest of the network' includes below-rail services on the Metropolitan, South Western, Western, Central Western and Tablelands systems.

[381] Transport, Housing and Local Government Committee, *Rail freight use by the agriculture and livestock industries*, report no. 45, Queensland Parliament, June 2014, p. 43.

system, as well as long-distance travel and tourism passenger trains that operate across the regional network.[382]

Queensland Rail's latest annual report shows that in 2017–18 Queensland Rail received approximately $1.1 billion for the delivery of above-rail passenger services.[383] According to Queensland Rail, approximately 54 million trips were taken on the Metropolitan system in 2017–18, and more than 750,000 customers travelled on the regional travel and tourism passenger services (with approximately 55% of these customers travelling on the Kuranda Scenic Railway tourist service, which runs 34 km between Cairns and Kuranda on the Tablelands system).[384]

(3) Subsidies for the provision of above-rail general freight services by an above-rail operator

The Queensland Government subsidises an above-rail operator to provide rail freight services in regional Queensland through its Regional Freight Transport Service Contract.[385] According to TMR:

> This contract ensures regional communities can access freight services at subsidised freight rates and ensures a minimum standard of service is delivered.
>
> The contract supports about 2,400 road and rail freight services each year in regional Queensland:
>
> - south west region: approximately 1,560 road freight services each year
> - central west region: 260 road freight services and 208 rail freight services on the Central West Line each year
> - north west region: 364 road freight services each year.[386]

Linfox is the current above-rail (and road) operator providing regional freight services under this subsidy. TMR transferred the contract to Linfox in early 2019, after the previous operator, Aurizon Operations, sold its Queensland intermodal business to Linfox.[387]

The Regional Freight TSC subsidises the transport of general freight to regional Queensland communities, both producing and receiving freight. The goods moved include food and grocery products, retail products, manufactured products, industrial products and agricultural inputs.[388]

The value of the contract is commercial-in-confidence between TMR and the above-rail operator. The Queensland Parliament Transport, Housing and Local Government Committee estimated that the value of the Regional Freight TSC was approximately $140 million in 2012–13. However, that amount was based on a TSC that facilitated 3,224 rail services and 2,756 road

[382] For a list of these regional passenger services, see the Queensland Rail Travel website at https://www.queenslandrailtravel.com.au/.

[383] Queensland Rail, *Financial Statements for the Year Ended 30 June 2018 - Below Rail Services Provided by Queensland Rail*, December 2018, p. 15; Queensland Rail, *Annual and Financial Report 2017–18*, September 2018, p. 73 (p. 7 of the Financial Report).

[384] Queensland Rail, *Annual and Financial Report 2017–18*, September 2018, pp. 19, 42.

[385] Department of Transport and Main Roads, Rail Transport Contracts and Agreements, Queensland Government, 2019.

[386] Department of Transport and Main Roads, Rail Transport Contracts and Agreements, Queensland Government, 2019.

[387] Department of Transport and Main Roads, Rail Transport Contracts and Agreements, Queensland Government, 2019.

[388] Linfox, sub. 50, para. 3.5; Transport, Housing and Local Government Committee, *Rail freight use by the agriculture and livestock industries*, report no. 45, Queensland Parliament, June 2014, p. 71.

services at that time (compared to 2,400 road and rail services (together) under the current TSC).[389] There is no publicly available data on the value of the current contract.

Queensland Rail cannot provide above-rail freight haulage services, as it is not permitted to do so under the Queensland Rail Limited Constitution.[390] Therefore, Queensland Rail does not receive subsidies under the Regional Freight Transport Service Contract.

(4) Subsidies for the provision of above-rail livestock services by an above-rail operator

The Queensland Government subsidises an above-rail operator to provide rail freight services specifically for the transport of cattle in regional Queensland through its Livestock Transport Service Contract.[391] The Livestock TSC is exclusive to rail; that is, no cattle moved by road attract the subsidy.[392] According to TMR:

> The Queensland Government offers 325 rail cattle services each year through the Livestock Transport Services Contract with rail operator Aurizon.
>
> These rail services transport large herds of cattle from regional hubs across the State to processing facilities on Queensland's eastern coat. The contract supports non-commercial livestock services and ensures a minimum standard is offered to the beef industry.
>
> …
>
> Livestock rail services operate in:
>
> - south west region – 27 services annually
> - central west region – 184 services annually
> - north west region – 114 services annually.
> - …
>
> A procurement process for a future cattle rail contract is now underway.[393]

Aurizon Operations is the current above-rail operator providing livestock rail services under this subsidy. In relation to the transport of livestock on rail, Queensland Rail noted:

> Queensland is the only State [in Australia] where cattle are still transported by rail and the traffic is subsidised under the Livestock Transport Services Contract between the Queensland Government and Aurizon. Without such subsidies, it would not be commercially viable for these services to be provided.[394]

[389] Transport, Housing and Local Government Committee, *Rail freight use by the agriculture and livestock industries*, report no. 45, Queensland Parliament, June 2014, p. 71.
[390] Queensland Rail, *Draft Queensland Rail Access Undertaking 1*, explanatory submission, March 2012, p. 15, accessed 30 July 2019, https://www.qca.org.au/wp-content/uploads/2019/06/8354_r-qrail-qrail2012dau-expdocs2012dau-0412.pdf.
[391] Department of Transport and Main Roads, Rail Transport Contracts and Agreements, Queensland Government, 2019.
[392] Transport, Housing and Local Government Committee, *Rail freight use by the agriculture and livestock industries*, report no. 45, Queensland Parliament, June 2014, p. 72.
[393] Department of Transport and Main Roads, Rail Transport Contracts and Agreements, Queensland Government, 2019, accessed 28 January 2020. At the time of writing, it appears from the TMR website that this procurement process is still ongoing.
[394] Queensland Rail, sub. 33, p. 37, para. 180.2.

The Queensland Parliament Transport, Housing and Local Government Committee also noted that Queensland is the last state in Australia to transport livestock by rail, and that this is due to the large distances required to source and transport cattle for processing in Queensland.[395]

The value of the contract is commercial-in-confidence between TMR and the above-rail operator. The Queensland Parliament Transport, Housing and Local Government Committee estimated that the value of the Livestock TSC was approximately $28 million in 2012–13, which provided 325 rail services in that year from regional locations through to the various abattoirs.[396] There is no publicly available data on the value of the current contract.

Queensland Rail cannot provide above-rail freight haulage services, as it is not permitted to do so under its Constitution. Therefore, Queensland Rail does not receive subsidies under the Livestock Transport Service Contract.

Subsidies (3) and (4) are applicable in the above-rail freight haulage markets on the agricultural systems

Of the four categories of TSC subsidies described above, only the Regional Freight TSC (subsidy (3)) and Livestock TSC (subsidy (4)) are relevant for the QCA's analysis of the above-rail freight haulage markets on the agricultural systems. These two subsidies are provided to above-rail freight operators on the agricultural systems.

The operation of the TSC subsidies is an important part of the above-rail freight haulage markets on the agricultural systems.

8.4.4 The features of the existing above-rail freight haulage markets on the agricultural systems

Three above-rail operators on the agricultural systems

In the current markets for above-rail freight haulage services on the agricultural systems, the above-rail operators are:

- Linfox—from early 2019, Linfox has operated general freight services on the Central Western Route; these services are subsidised through the Regional Freight TSC with the Queensland Government[397]
- Aurizon Operations—currently, Aurizon Operations continues to operate livestock freight services on the Western and Central Western Routes (as well as the Mount Isa Route); these services are subsidised through the Livestock TSC with the Queensland Government, although the QCA understands that the TMR is currently undertaking a procurement process for a future Livestock Transport Services Contract[398]
- Watco—from late 2019, Watco has commenced operating grain freight services on the South Western, Western and Central Western Routes, taking over the grain rail task on these

[395] Transport, Housing and Local Government Committee, *Rail freight use by the agriculture and livestock industries*, report no. 45, Queensland Parliament, June 2014, p. 20.
[396] Transport, Housing and Local Government Committee, *Rail freight use by the agriculture and livestock industries*, report no. 45, Queensland Parliament, June 2014, p. 72.
[397] Department of Transport and Main Roads, Rail Transport Contracts and Agreements, Queensland Government, 2019; Linfox, sub. 50, paras 3.3–3.7.
[398] Department of Transport and Main Roads, Rail Transport Contracts and Agreements, Queensland Government, 2019, accessed 28 January 2020. At the time of writing, it appears from the TMR website that this procurement process is still ongoing.

systems, which was previously hauled by Aurizon Operations.[399] The QCA understands that Watco will not receive a subsidy for operating its grain freight services.[400]

Before 2019, Aurizon Operations was the only above-rail freight haulage operator on the agricultural systems. During that time, Aurizon Operations operated both subsidised regional freight and livestock freight services (pursuant to the TSCs), as well as non-subsidised commercial freight services, such as for the haulage of grain and cotton on the agricultural systems.

No evergreen renewal rights in access agreements

The QCA understands that access agreements between Queensland Rail and above-rail operators for non-subsidised services on the agricultural systems (such as Watco's haulage of grain) are typically for a period of 10 years.[401] Existing access agreements with Queensland Rail typically do not provide evergreen renewal rights for the terms of access. Terms under these agreements (e.g. in relation to pricing, capacity allocation or usage of facilities) will progressively expire and must be renegotiated for new contracts within the bounds of an approved access undertaking.

The QCA has no visibility over access arrangements for subsidised services provided by above-rail operators pursuant to a TSC. Thus, it cannot be said with certainty whether access for these subsidised services are contracted for in a similar way to commercial services (e.g. a 10 year access agreement between the above-rail operator and Queensland Rail), or whether special arrangements apply for above-rail services provided pursuant to a TSC.

Spare capacity exists on each of the agricultural systems

Data provided by Queensland Rail shows that there is currently significant spare capacity on each of the South Western, Western and Central Western systems.[402] The effect of spare capacity on Queensland Rail's ability and incentive to exercise market power is discussed in section 5.5.1.

8.5 Queensland Rail's ability and incentive to exercise market power

Whether access (or increased access) to the service, on reasonable terms and conditions, as a result of declaration would promote a material increase in competition in the dependent above-rail freight haulage markets on each of the agricultural systems depends firstly on whether Queensland Rail has market power that could be used to adversely affect competition in the dependent markets; and secondly on whether Queensland Rail has an ability and incentive to exercise that market power, in a future without declaration.[403]

In its submission in response to the QCA's draft recommendation, Queensland Rail has argued that it has no ability or incentive to exercise market power in any dependent market, including

[399] Watco, sub. 48, pp. 1–2; GrainCorp, sub. 52, p. 5.

[400] GrainCorp, sub. 52, p. 6. See also Transport, Housing and Local Government Committee, *Rail freight use by the agriculture and livestock industries*, report no. 45, Queensland Parliament, June 2014, p. 71, where the Committee said: 'There is currently no subsidy of non-livestock agricultural freight (cotton, grain, sugar etc.) in Queensland'.

[401] Watco, sub. 49, p. 1; Queensland Rail, sub. 51, pp. 1–2.

[402] Queensland Rail, sub. 33, attachment A, pp. 4–5, 7–8, 13.

[403] For example, NCC, *Declaration of Services, A guide to declaration under Part IIIA of the Competition and Consumer Act 2010 (Cth)*, April 2018 edn, p. 33, para. 3.26; *Duke Eastern Gas Pipeline* [2001] ACompT 2 at [116]; Queensland Rail, sub. 33, p. 19, para. 100; South West Producers, sub. 40, p. 19; Glencore, sub. 41, p. 14.

that it is constrained by various factors such as competition from road transport.[404] These issues are considered below in relation to the agricultural systems. The operation of access arrangements in a future without declaration as a possible constraint on Queensland Rail's ability and incentive to exercise market power is considered in section 5.5.3.

8.5.1 Competition between road freight and rail freight

Queensland Rail argued that it has no ability or incentive to exercise market power to adversely affect competition in any dependent market because it is materially constrained in the provision of below-rail services by road freight operators:

> Only a very low volume of freight is transported on the Central Western, Western and South Western Systems. The freight transported is primarily grain and livestock. As outlined above in respect of the North Coast Line, such freight is highly contestable by road.[405]

The main types of freight carried on the agricultural systems are intermodal general freight, grain and livestock. The degree of competition between road and rail for each of these freight tasks is considered below.

Grain

In Queensland, grain intended for domestic consumption is exclusively carried by road to its destinations (e.g. food manufacturers for human consumption, feedlots and farms for animal consumption).[406] The advantage of road transport in the domestic grain freight task is likely to be due to the ability of road transport to easily adapt to the demand of transporting different types and quality of grain (e.g. for human or animal consumption) to different customers, located in geographically diverse locations.

In contrast, grain intended for export is more suited to the rail task as it is typically transported in bulk form to one destination for export (e.g. the port). However, even for grain intended for export, road transport is used as a viable alternative (or complement) to rail transport across Australia. For example, GrainCorp viewed rail as providing 'baseload capacity' for grain transport, with road being used to provide 'peaking capacity' in times of high demand.[407] According to GrainCorp figures:

> Over the past decade, Queensland grain production has averaged approximately 3.5 million tonnes per annum (mtpa). Of this, around 44% is consumed in the domestic market, being for human consumption (flour etc) or for stockfeed and industrial uses. The remainder is exported.
>
> Queensland exports are usually derived from stocks that are surplus to the domestic market or of higher value to the producer than the domestic market is willing to pay (such as high protein wheat destined for the Japanese noodle market). Exports are therefore quite variable, but on average around 2mtpa are exported out of Queensland …[408]

From late 2019, the above-rail operator Watco has commenced providing grain haulage services under a seven-year contract with GrainCorp.[409] Grain will be transported from designated GrainCorp receival and loading sites on the Queensland Rail South Western, Western and

[404] Queensland Rail, sub. 33, p. 15, para. 79.
[405] Queensland Rail, sub. 33, p. 36, para. 175.
[406] GrainCorp, sub. 52, p. 5.
[407] GrainCorp, sub. 52, p. 7.
[408] GrainCorp, sub. 52, p. 4.
[409] Watco Companies, Rail Services: Australia, accessed 7 February 2020, https://www.watcocompanies.com/services/rail/australia/; *Tank News International*, 'NRE to build Watco Australia narrow-gauge locomotives', 3 December 2018, accessed 31 July 2019, https://www.tanknewsinternational.com/nre-to-build-watco-australia-narrow-gauge-locomotives/.

Central Western systems[410] to the Ports of Mackay, Gladstone and Brisbane (Fisherman Islands) for export. Figure 14 above shows a map of GrainCorp's grain operations on the Queensland Rail (and Aurizon Network) systems. This task is estimated to be approximately 1 million tonnes per annum in total (across all rail systems).[411]

In recent times, there has been a shift away from the transport of grain as a bulk commodity to containerised lots.[412] Containerisation allows producers to differentiate their product, for example in markets for organics or premium products, compared with bulk transport where grain from many producers are mixed together for transport as a homogenous good.[413] Publicly available evidence suggests that containerised grain is transported almost entirely by road—because of the low axle limits (15.75 tonne axle load and less) on the agricultural systems, containerised grain cannot be freighted by rail due to its weight.[414]

Given the evidence discussed above, the QCA considers that rail does compete with road for the transport of grain, particularly bulk grain intended for export, and competes primarily on price. Based on the evidence, road appears to be the preferred transport mode for grain intended for domestic consumption, and grain transported in containerised form (whether for domestic consumption or export).

Cattle/livestock

Queensland is the only state in Australia where cattle are transported by rail.[415] According to the Queensland Parliament Transport, Housing and Local Government Committee:

> This [the movement of cattle by rail] is due to the large distances required to source and transport cattle for processing in this State.[416] While the State Government provides a subsidy for transporting cattle to processors through a Transport Service Contract it is estimated that less than 10% of Queensland cattle are consigned to an abattoir by train.[417]

Queensland Rail also contended that these livestock rail services are only viable due to the subsidies provided:

> [T]he [rail] traffic is subsidised under the Livestock Transport Services Contract between the Queensland Government and Aurizon. Without such subsidies, it would not be commercially viable for these services to be provided.[418]

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[410] In addition, some grain will also be transported on Aurizon Network's Goonyella, Blackwater and Moura systems.
[411] Watco, sub. 48, p. 1.
[412] Transport, Housing and Local Government Committee, *Rail freight use by the agriculture and livestock industries*, report no. 45, Queensland Parliament, June 2014, p. 91.
[413] Transport, Housing and Local Government Committee, *Rail freight use by the agriculture and livestock industries*, report no. 45, Queensland Parliament, June 2014, p. 91; Lamb, K, 'Tour grapples with pinch points and growth opportunities', *Rural Weekly*, 10 July 2019, accessed 5 August 2019, https://www.weeklytimesnow.com.au/news/rural-weekly/tour-grapples-with-pinch-points-and-growth-opportunities/news-story/cfed534b7155629e70835c5750c65af8.
[414] Transport, Housing and Local Government Committee, *Rail freight use by the agriculture and livestock industries*, report no. 45, Queensland Parliament, June 2014, p. 24.
[415] Queensland Rail, sub. 33, p. 37, para. 180.2; Transport, Housing and Local Government Committee, *Rail freight use by the agriculture and livestock industries*, report no. 45, Queensland Parliament, June 2014, p. 20.
[416] Cattle train services operate on the Western and Central Western systems, with a distance of approximately 950 km from Quilpie (on the Western system) to the abattoirs in Brisbane, and a distance of approximately 870 km from Winton (on the Central Western system) to the abattoirs in Rockhampton.
[417] Transport, Housing and Local Government Committee, *Rail freight use by the agriculture and livestock industries*, report no. 45, Queensland Parliament, June 2014, p. 20.
[418] Queensland Rail, sub. 33, p. 37, para. 180.2.

Other movements of cattle in Queensland are almost entirely undertaken by road, including transporting livestock domestically and transporting livestock to the port for export. Transport tasks undertaken by road include:

- moving livestock from feedlots to abattoirs (the remaining 90% that is not carried by rail)
- moving livestock from paddock to paddock depending on the availability of feed
- moving livestock from paddocks to feedlots across the state
- moving livestock from paddocks and feedlots to ports for export.[419]

Given the evidence discussed above, the QCA considers that rail does compete with road for the transport of livestock, particularly domestic movements of livestock from feedlots to abattoirs for processing, although it may be the case that rail is only competitive with road due to the subsidies provided. Based on the evidence, road appears to be the preferred transport mode for a significant majority of the livestock transport task in Queensland.

Containerised freight

Containerised freight on the agricultural systems is mainly carried on the Central Western Route. Queensland Rail described this regional freight task as follows:

> Aurizon [now Linfox] provides subsidised freight services on the Central Western System pursuant to the Regional Freight Transport Services Contract with the Queensland Government. Without such subsidies, it would not be commercially viable for these services to be provided.[420]

The issue of competition between road and rail for the transport of containerised (intermodal) freight is discussed in detail in section 5.5.2.

Consistent with the evidence discussed in that section[421], the QCA considers that the transport of containerised (intermodal) freight on the Central Western Route (and other agricultural systems) is technically able to be carried by either road or rail. Rail does compete with road transport for the transport of containerised freight, and competes primarily on price. There is little available data on the volumes that are carried by road compared to the volumes carried by rail.

The presence of competition for this freight task was acknowledged by Linfox, the above-rail freight operator that transports containerised freight on the Central Western Route:

> Linfox transports food & grocery, liquor, retail products, industrial products and agricultural inputs for its customers on its train services into this region to locations such as Longreach, Barcaldine, Emerald and Alpha. All of this freight could be transported by road and there is a body of evidence of switching between the transport modes in these regions.[422]

Additionally, Queensland Rail presented evidence of switching between rail and road for the transport of containerised cotton freight on the South Western Route in the past:

> There has been significant change in the transport market in the South West, with all cotton movements from the South West switching from rail to road from 2014-15.[423]

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[419] Transport, Housing and Local Government Committee, *Rail freight use by the agriculture and livestock industries*, report no. 45, Queensland Parliament, June 2014, p. 15.
[420] Queensland Rail, sub. 33, p. 37, para. 180.3.
[421] For example in relation to the effect of product type and the effect of distance on the competitiveness of rail and road in transporting containerised freight.
[422] Linfox, sub. 50, para. 3.5.
[423] Queensland Rail, sub. 33, p. 37, para. 180.4.

This switch to road for the transport of containerised freight on the South Western system is reflected in Queensland Rail data, which show the transport of containerised freight on the South Western system ceasing from 2014–15.

The presence of competition between road and rail for containerised freight across regional Queensland is also reflected in the terms of the Regional Freight TSC. For example, the Regional Freight TSC supports 260 road freight services in the central west region, as well as 208 rail freight services on the Central Western system. This suggests that regional freight in the central western region is carried by a mix of road and rail (with a subsidy provided for both types of transport in order to ensure a minimum standard of service).[424]

Given the evidence discussed above, the QCA considers that rail does compete with road for the transport of containerised freight on the agricultural systems, in particular the Central Western Route.

Does competition from road transport constrain Queensland Rail's ability and incentive to exercise market power?

The QCA considers that rail transport does compete with road transport for the transport of all three of the main freight tasks on the agricultural systems: the transport of grain, livestock and containerised freight.

Figure 18 is a graphical representation of the composition of prices charged by road and rail operators on the agricultural systems for the transportation of grain, livestock or containerised freight.

Figure 18 Road and rail prices on the agricultural systems for the transport of containerised freight, grain or livestock

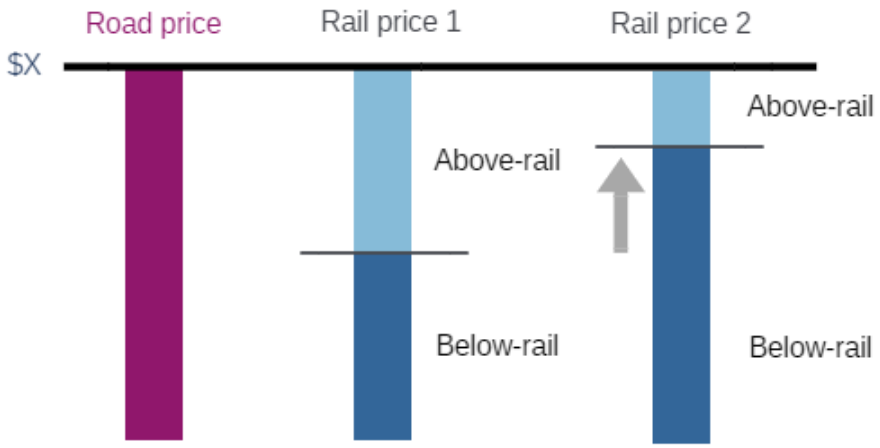

Diagram for illustrative purposes only. Not drawn to scale.

The road price

The road price represents the final price paid by freight owners or freight forwarders (e.g. bulk grain handlers) to transport their goods by road, for a particular transport task (origin-destination pair) on the agricultural systems. There is no 'below-road' price in Queensland—that is, trucks accessing major regional road networks in Queensland typically do not pay an access

[424] Department of Transport and Main Roads, Rail Transport Contracts and Agreements, Queensland Government, 2019.

fee. Therefore, the road price is expected to reflect largely the costs of the trucking operator (for example, labour costs, vehicle costs, fuel costs, as well as a profit margin).

The rail price

The rail price represents the final price paid by freight owners or freight forwarders to transport their goods by rail, for the same particular transport task (origin–destination pair) on the agricultural systems. The total rail price consists of two components—an above-rail component, which represents the charges of the above-rail operator, and a below-rail component, which represents the charges of the below-rail operator (Queensland Rail).

On the agricultural systems, above-rail operators (such as Watco) contract with Queensland Rail directly for access, and negotiate a train path allocation and below-rail access price. Above-rail haulage operators then add their above-rail charges (for example, labour costs, rollingstock costs, fuel costs, as well as a profit margin) to the below-rail access price to produce a final total rail price, which is the price offered to the 'end customers', for example freight forwarders and bulk product handlers (such as GrainCorp), or individual producers.[425]

Queensland Rail's ability and incentive to exercise market power is constrained with respect to end customers in the above-rail haulage markets on the agricultural systems

The QCA considers that rail transport competes with road transport for the transport of the three main types of freight tasks on the agricultural systems: the transport of grain, livestock and containerised freight.

For these contestable freight tasks, the road price ($X in Figure 18) acts as a constraint on the rail price. This is because the main types of goods carried on the agricultural systems (grain, livestock and containerised freight) can be transported by road or rail. Therefore, if the total rail price exceeds the road price, end customers can choose to transport their goods by road instead, and rail operators will lose market share to road operators for the transport of this freight. These end customers may include:

- in the case of grain, bulk grain handlers such as GrainCorp
- in the case of livestock, meat processors or individual producers
- in the case of containerised freight, a variety of end customers, such as retailers, wholesalers and manufacturers.

As a result, the above-rail price and below-rail price are collectively constrained by the road price. It is open for the above-rail operator and below-rail operator to seek to increase their share of the total rail price; however, the absolute amount of this total rail price cannot rise above the constraint of the road price. If it does, end customers may switch from rail transport to road transport, and this will in the long run negatively affect both the above-rail and below-rail operators.

The QCA considers that Queensland Rail is constrained in its ability and incentive to exercise market power against the end customers on the agricultural systems by competition from road transport. If Queensland Rail sought to raise the below-rail price, and the above-rail operator is assumed to pass on this increase in full, the total rail price may exceed the road price, and if it does, end customers may switch from using rail transport to using road transport to transport

[425] Watco, sub. 48, p. 2; GrainCorp, sub. 52, p. 5; Transport, Housing and Local Government Committee, *Rail freight use by the agriculture and livestock industries*, report no. 45, Queensland Parliament, June 2014, pp. 64, 74–76.

their goods. Therefore, Queensland Rail is constrained in its ability and incentive to exercise market power against these end customers.

Queensland Rail's ability and incentive to exercise market power is not constrained with respect to above-rail operators in the above-rail freight haulage markets

The QCA considers that Queensland Rail is not constrained in its ability and incentive to exercise market power against the above-rail haulage operators on the agricultural systems by competition from road transport.

As discussed above, given that rail competes with road for the transport of the main types of goods typically carried on the agricultural systems, the above-rail operator and the below-rail operator together face a collective constraint on the total rail price that can be charged—that constraint is the road price for the equivalent transport task (origin–destination pair).

In a future without declaration, Queensland Rail can exercise its market power, in order to maximise its profits. It may seek to exercise this market power by raising the below-rail access charge that it charges the above-rail operator(s) on the agricultural systems, and seek to claim a larger share of the total rail price (the 'Rail price 2' scenario in Figure 18).

In this scenario, the above-rail operator(s) cannot simply switch to using road transport in response to the increase in the below-rail access charge, as rollingstock cannot be easily converted for use on roads. The above-rail operator(s) will have made significant sunk investments into long-life assets, such as locomotives and wagons, often specifically configured for use for the transport task on the agricultural systems (e.g. narrow gauge, specific tonne axle loads), which cannot be easily redeployed elsewhere. As Watco noted:

> As a new entrant into the Queensland above rail market, Watco is having to incur significant sunk costs through investing in long-life rollingstock assets (with a typical 25 year+ life) as well as the associated maintenance and provisioning facilities. Given the specific operational characteristics of the Central Western, Western and South Western systems, such as a narrow-gauge track with specific tonnage allowances, such assets are unable to be readily switched to alternative uses elsewhere.[426]

Publicly available industry information on Watco notes the significance of the sunk investments that need to be made in order for Watco to enter above-rail markets on the agricultural systems in Queensland:

> Watco has ordered eight 1067mm-gauge [narrow gauge] diesel locomotives from National Railway Equipment Corporation (NREC), United States, for the contract, along with a new fleet of grain wagons, which will be manufactured in China. Because of the lead times required, start-up for the contract [with GrainCorp] is expected in the fourth quarter of 2019.[427]

NREC, the locomotive manufacturer, notes on its website the degree of asset specificity required to support Watco's entry, given the specific engineering requirements needed to be met in order to operate on the Queensland Rail agricultural systems, which are narrow-gauge, with specific permissible tonne axle loads and specific speed limitations:

> Watco demanded the utilisation of a proven medium-speed diesel prime mover … The Queensland Australia network requires a very specific and unique set of design parameters … The locomotives must be narrow-gauge (1.067mm). They must have six axles, each able to carry

[426] Watco, sub. 48, p. 4; GrainCorp, sub. 52, p. 6.

[427] Carter, M, 'Watco expands Australian rail freight operations', *International Railway Journal*, 3 July 2018, accessed 6 August 2019, https://www.railjournal.com/regions/australia-nz/watco-expands-australian-rail-freight-operations/; VanBecelaere, T, 'Watco signs agreement to move Eastern Australia grain', *The Dispatch*, vol. 19, no. 7, July 2018, p. 2, http://www.watcocompanies.com/pdfs/Dispatch2018/07July2018Web.pdf.

> 15.75 metric tonnes, with new NRE bogies. They must have 2,250 traction horsepower with a minimum radius curve of 80mm. They must weigh no more than 94.5 metric tonnes with dimensions that do not exceed 3,900mm in height, 2,850mm in width and 19,018 in length.
>
> Requirements also include a 12-645E3B diesel engine, an AR10/D14 main alternator, companion, 761 traction motors, a WBO compressor. The locomotive must have at least 27 percent adhesion available during traction mode with 99 percent reliability in all weather conditions and must demonstrate 250kN of adhesion-limited tractive effort.[428]

Given the significance of the sunk investments that the above-rail operator(s) would have made in entering the above-rail markets on the agricultural systems, the QCA considers that if Queensland Rail raised the below-rail access charge on these systems, the above-rail operator cannot make a credible threat to exit the market or to switch to road transport in response. Furthermore, the above-rail operator faces the collective constraint (the road price), and cannot simply pass through the below-rail access charge increase, because if the total rail price exceeds the road price, the above-rail operator is likely to begin losing end customers (who may switch to road transport to transport their goods).

For an existing above-rail operator, arguably this scenario can be regarded as a transfer of wealth between the above-rail operator and the below-rail operator, with little impact on competition in the above-rail market. However, the QCA considers that the critical issue is that a potential above-rail operator seeking to enter the above-rail market, or an existing operator seeking to reinvest in the market, can foresee this risk—that any sunk investments it makes may be exposed to the risk of expropriation by the below-rail operator in a future without declaration. This is the hold-up risk (discussed in detail in section 8.6.2).

In summary, the ability of Queensland Rail to exercise market power in future contracting periods, in a future without declaration, creates a significant degree of uncertainty for potential market participants at the time they are considering investment, raising the hurdle rate required to justify the investment, and thereby potentially preventing efficient entry and efficient participation in the above-rail freight haulage market.

Therefore, the QCA does not consider that competition from road will be an effective constraint on Queensland Rail's ability and incentive to exercise market power against the above-rail operators in the above-rail haulage markets on the agricultural systems. The QCA considers that these above-rail operators will be exposed to the risk of hold-up in a future without declaration.

8.5.2 Transport Service Contract subsidies

Subsidised above-rail services

The Regional Freight TSC and the Livestock TSC subsidies are provided to some above-rail operators for the haulage of specific goods (general freight and cattle respectively) on some parts of the agricultural systems. These subsidies add a layer of complexity when considering Queensland Rail's ability and incentive to exercise market power in the above-rail freight haulage markets on the agricultural systems.

In particular, the complexity arises because of a lack of public information relating to the terms of the Regional Freight and Livestock TSCs. This is further complicated by the fact that Queensland Rail also receives a TSC (the Rail TSC), which is separate from the Regional Freight and Livestock TSCs provided to above-rail freight operators.

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[428] *Tank News International*, 'NRE to build Watco Australia narrow-gauge locomotives', 3 December 2018, accessed 6 August 2019, https://www.tanknewsinternational.com/nre-to-build-watco-australia-narrow-gauge-locomotives/.

Some stakeholders expressed their views on the effect of the TSC subsidies on Queensland Rail's ability and incentive to exercise market power. For example, Linfox said:

> Linfox submits that conditions associated with the TSC subsidies do not provide an effective long-term constraint on Queensland Rail's ability to exercise monopoly market power and adversely affect competition in dependent markets. Government policies routinely change and the TSC funding and its conditionality, could be removed, reduced or adjusted at any time.[429]

GrainCorp said:

> While subsidies may be provided for transportation of livestock, so far as GrainCorp is aware, no subsidies are provided for grain haulage. This means that there is real potential for growth in competition for grain haulage, including in the South Western, Western and Central Western systems ...
>
> The fact that some level of subsidy is currently offered to the incumbent above rail operator for some freight tasks does not preclude new entry, nor does it mean that competition would not be promoted by ensuring that access to the below rail service is provided on reasonable terms.[430]

However, no further details on the terms or operation of the TSC subsidies are provided by stakeholders (this may be due to reasons such as commercial confidentiality).

Given this lack of publicly available information on the terms and the operation of the various TSCs (including both the below-rail and above-rail subsidies), and the interactions (if any) between them, it is unclear whether the subsidies provide any constraint on Queensland Rail's ability and incentive to exercise market power against the above-rail operators who receive these subsidies in the above-rail freight haulage markets on the agricultural systems.

Non-subsidised above-rail services

The TSC subsidies are provided to only some above-rail operators, for the haulage of specific goods, on some parts of the agricultural systems. As a result, the same above-rail operator, or another above-rail operator, may operate services on the agricultural systems that are not subsidised. Based on the information before the QCA, it appears that above-rail services for the haulage of grain on the agricultural systems currently do not receive TSC subsidies (and historically have not received subsidies), and operate on a commercial basis.[431]

The QCA considers that the presence of TSC subsidies does not affect Queensland Rail's ability and incentive to exercise market power against non-subsidised above-rail operators (or above-rail operators operating non-subsidised services) on the agricultural systems. That is, the QCA considers that Queensland Rail does have the ability and incentive to exercise market power with respect to non-subsidised above-rail operators (see section 8.5.1 above).

8.5.3 Other arguments previously raised in relation to other Queensland Rail systems

Queensland Rail submitted that there are other constraints on its ability and incentive to exercise market power to adversely affect competition in the above-rail freight haulage markets on the agricultural systems:

> The other material constraints on Queensland Rail in the provision of below rail services for the purposes of transporting freight on the Other Systems include those discussed above in respect of the North Coast Line, namely:

[429] Linfox, sub. 50, para. 3.4.
[430] GrainCorp, sub. 52, p. 6.
[431] GrainCorp, sub. 52, p. 6; Transport, Housing and Local Government Committee, *Rail freight use by the agriculture and livestock industries*, report no. 45, Queensland Parliament, June 2014, p. 71.

(1) Queensland Rail's statutory obligations and position as a statutory authority, including obligations to have approved and comply with strategic and operational plans.

(2) The threat of regulation or declaration under Parts 3 or 5 of the QCA Act.[432]

These issues have been previously raised with respect to the North Coast Line. The QCA has considered these issues in detail in the preceding sections of this report, and considers that analysis can also be applied with respect to the agricultural systems. In particular, the QCA has considered the following points raised by Queensland Rail in sections 5.5.1 and 5.5.3:

- the presence of excess capacity on the rail systems
- Queensland Rail's statutory obligations
- the threat of regulation or declaration.

8.5.4 Conclusions on Queensland Rail's ability and incentive to exercise market power

Based on the analysis above, the QCA considers that Queensland Rail has the ability and incentive to exercise market power in a way that may affect competition in the dependent above-rail freight haulage markets in a future without declaration.

This prompts the question of whether competition would be adversely affected if Queensland Rail exercised this market power. For criterion (a) to be satisfied, it must be established that access (or increased access) to the service, on reasonable terms and conditions, as a result of a declaration of the service would promote a material increase in competition in at least one dependent market. The following sections contain a detailed analysis of the state of competition in the above-rail freight haulage markets on the agricultural systems in a future with and without declaration.

8.6 Competition in the above-rail freight haulage markets in a future with and without declaration

8.6.1 A future with declaration

The QCA considers that a future with declaration will continue to provide for access to the rail network on reasonable terms and conditions due to on-going regulatory oversight. The regulatory regime under Part 5 of the QCA Act will provide an effective long-term constraint on Queensland Rail's ability and incentive to exercise market power in a way that may adversely affect competition in dependent markets. For example, Watco highlighted the benefits of declaration in its view:

> Declaration promotes long term access certainty on fair and reasonable terms, a right to have QCA arbitrate access disputes, efficient access pricing and the potential to have reference tariffs, which all promote competition in dependant markets, particularly in regional Queensland agricultural freight markets and above rail operations …
>
> On the basis of the current track access regulatory regime, Watco has witnessed the success of above rail competition in Queensland and the positive impact this has had for freight customers, the economy and the broader community. The ability for [sic] new above rail entrant like Watco to enter the Queensland market is critically dependant on the stable operation of Queensland's regulatory regime under Part 5 of the QCA Act.[433]

[432] Queensland Rail, sub. 33, p. 37, para. 181.
[433] Watco, sub. 48, pp. 4–5.

The QCA considers that the regulatory framework in a future with declaration will provide certainty to a potential new market entrant (or renewing access holder) that access to the service will be provided on reasonable terms and conditions. Declaration, and the associated access regime, provides a transparent statutory process within which terms and conditions of access can be negotiated (including to address sunk investments and mitigate the risk of hold-up for access seekers). Additionally, declaration can maintain an appropriate balance between the legitimate interests of the service provider and access seekers/users in the presence of sunk investments. Mitigating the risk of hold-up for access seekers is likely to be a critical factor in supporting efficient entry to and efficient participation in the above-rail freight haulage market, thereby materially promoting competition (the QCA's approach to the concept of materiality is discussed below).[434]

8.6.2 A future without declaration: the hold-up problem

The QCA's analysis of the hold-up problem—overview

As a business, Queensland Rail has an incentive to maximise profits.[435] In a future with declaration, its ability and incentive to exercise its market power in order to maximise profits will be constrained by the regulatory regime. In a future without declaration, the QCA considers that Queensland Rail will not face any effective long-term constraints on its ability and incentive to exercise market power in order to maximise profits.[436] In particular, the QCA considers that access arrangements applied by Queensland Rail will not act as an effective constraint—the access framework is considered in detail in Part B, Chapter 4.

It is in this environment that market participants will face decisions to enter or operate in the above-rail markets on the agricultural systems in a future without declaration. In particular, a new entrant to the above-rail haulage markets on the agricultural systems will have to incur significant sunk costs. These include investments in physical assets, which typically have a 20–25-year life, and the associated maintenance and provisioning facilities.[437] For example, Watco, a new above-rail operator entering the above-rail markets on the agricultural systems, has had to incur significant sunk investments to facilitate its entry:

> Watco has ordered eight 1067mm-gauge [narrow gauge] diesel locomotives from National Railway Equipment Corporation (NREC), United States, for the contract, along with a new fleet of grain wagons, which will be manufactured in China. Because of the lead times required, start-up for the contract [with GrainCorp] is expected in the fourth quarter of 2019.[438]

[434] Efficient participation in the market includes actions undertaken by incumbent market participants, such as investing in operational efficiencies and innovations, as well as reinvestment into the market at the time of contract renewal.

[435] Or minimise losses.

[436] The presence of TSC subsidies for some above-rail freight haulage services on the agricultural systems may affect Queensland Rail's ability and incentive to exercise market power, but this does not affect Queensland Rail's ability and incentive to exercise market power against the non-subsidised services on the agricultural system—see section 8.5.2.

[437] Watco, sub. 48, p. 4; GrainCorp, sub. 52, p. 6.

[438] Carter, M, 'Watco expands Australian rail freight operations', *International Railway Journal*, 3 July 2018, accessed 6 August 2019, https://www.railjournal.com/regions/australia-nz/watco-expands-australian-rail-freight-operations/; VanBecelaere, T, 'Watco signs agreement to move Eastern Australia grain', *The Dispatch*, July 2018, accessed 6 August 2019, http://www.watcocompanies.com/pdfs/Dispatch2018/07July2018Web.pdf.

In addition, Watco has committed to building a rail transport facility/depot in Warwick (southern Queensland) for rollingstock maintenance and storage.[439]

Given the specific operational characteristics of the agricultural systems, such as a narrow-gauge track with specific tonne axle loads, assets such as rollingstock are unable to be readily switched to alternative uses elsewhere. In particular, the below-rail infrastructure on the agricultural systems have specific infrastructure limitations, which affect the characteristics of the rollingstock able to operate on them, including:

- narrow-gauge lines, which limit the type of locomotives and rollingstock that can be used
- low axle limits (15.75 tonne axle loads (TAL) or less), compared to 20–22 TAL on the North Coast Line and Mount Isa Line, or 22–30 TAL on the Central Queensland Coal Network[440]
- restricted tunnel heights, particularly on the Toowoomba Range Crossing (for South Western system and Western system traffic), which affect the permissible height of wagons and containers
- old railway bridges—which restrict speeds and limits the tonne axle loads of rollingstock.[441]

The presence of sunk investments in assets specific to the Queensland Rail network (e.g. rollingstock and associated maintenance facilities) gives rise to the 'hold-up problem' commonly described in the economics literature.

Specifically, if an access seeker decides to enter (or increase its operations in) the above-rail freight haulage markets on the agricultural systems, it will incur significant sunk costs through the need to invest in long-life rollingstock assets. The 20–25-year useful life of rollingstock can be contrasted with the typical length of a below-rail access agreement, which is around 10 years.[442] Therefore, at some point in the middle of the useful life of the rollingstock, it might be expected that the below-rail access agreement will be due for renewal. As noted in section 8.4.4, below-rail access agreements with Queensland Rail have historically not contained evergreen renewal clauses[443]—this means that any terms contained in the original access agreement (entered into in the first period) may not necessarily be replicated in the new access agreement. Therefore, when the below-rail access agreement is due for renewal, in subsequent periods after the above-rail operator has entered the market, the above-rail operator would be in a less favourable bargaining position relative to Queensland Rail, as it has made significant sunk investments in rollingstock assets that are not able to be readily used elsewhere.[444]

The QCA considers that in a future without declaration, Queensland Rail will not face any effective long-term constraints on its ability to exercise market power. In these subsequent periods, an exercise of market power by Queensland Rail against an above-rail operator may

[439] Southern Downs Regional Council, *Major rail service company Watco invests in Southern Downs*, news release, 20 September 2018, accessed 7 August 2019, https://www.sdrc.qld.gov.au/council/alerts-news-notices/2018-news/major-rail-service-company-watco-invests-in-southern-downs.

[440] Queensland Rail, *Western System Information Pack*, October 2016, p. 21, accessed 7 August 2019, https://www.queenslandrail.com.au/business/acccess/Documents/Western%20System%20Information%20Pack%20-%20Issue%203%20-%20October%202016.pdf.

[441] Transport, Housing and Local Government Committee, *Rail freight use by the agriculture and livestock industries*, report no. 45, Queensland Parliament, June 2014, p. 15.

[442] Watco, sub. 49, p. 1; Queensland Rail, sub. 51, pp. 1–2.

[443] In the absence of information to the contrary, the QCA has proceeded on the basis that this practice will continue in the future—that is, that below-rail access agreements in the future are likely to also not contain evergreen renewal clauses.

[444] Watco, sub. 48, p. 4; GrainCorp, sub. 52, p. 7.

arguably be regarded as a transfer of wealth between the parties, with little impact on competition. However, the QCA considers that the critical issue is that in the first period, the above-rail operator can foresee this risk that any sunk investments it makes in the first period will be exposed to the risk of expropriation by the monopolist in the subsequent periods. The QCA considers that this risk is sufficiently material that a potential more efficient entrant will likely be deterred from entering the market in the first place. For example, Watco noted:

> Watco's entry into the Queensland above rail market is predicated on its proposed significant investment in new above rail rollingstock, which given the potential change in access arrangements and subsequent impact on investment risk profile, has the potential to seriously alter service provision.[445]

The presence of this risk of hold-up means that socially optimal investments will not proceed, or there will be an underinvestment. Queensland Rail may have an incentive to solve this hold-up problem ex ante—for example, it may be profit maximising for Queensland Rail to sell unused network capacity to new or renewing users, assuming it is not constrained to charging a uniform price.[446] However, as discussed below, the QCA's view is that it would be very difficult for Queensland Rail to credibly commit ex ante to solve the hold-up problem (for example through a long-term contract). The problem is that events could develop in the future where the benefits to Queensland Rail of expropriating the value of the investment at that later time exceed the benefits of continuing to abide by status quo arrangements. The QCA considers that it is this risk—that significant sunk investments in rollingstock made by the above-rail operator will be expropriated—that will lead to a material adverse effect on competition in the above-rail freight haulage markets on the agricultural systems in a future without declaration.

The ability of Queensland Rail to exercise market power in future contracting periods creates a significant degree of uncertainty for potential market participants at the time they are considering investment, raising the hurdle rate required to justify the investment and potentially preventing efficient entry and efficient participation in the market. Furthermore, all market participants are exposed to this risk in a future without declaration: incumbent operators also face increased risk and uncertainty at the time of their contract renewals, due to the absence of evergreen renewal rights. This may undermine incentives for future efficient actions by those operators compared to the situation with declaration.[447]

In contrast, the QCA considers that the access regime that would apply in a future with declaration is an effective long-term constraint on Queensland Rail's ability and incentive to exercise market power. Access (or increased access) to the service, on reasonable terms and conditions, as a result of declaration would materially improve the environment for competition by encouraging efficient entry and actions (through a stable and predictable environment). Such an environment would in turn promote a material increase in competition in the above-rail freight haulage markets on the agricultural systems (the QCA's approach to materiality is discussed below).

[445] Watco, sub. 48, p. 4.

[446] Under the 2016 access undertaking, Queensland Rail is only required to charge a uniform price (i.e. the reference tariff) for coal users on the West Moreton system and Metropolitan system. For all the other systems (including non-coal users of the West Moreton system and Metropolitan system), prices are negotiated between Queensland Rail and the customers seeking below-rail access.

[447] Pacific National, sub. 9, pp. 6–7.

Queensland Rail's submission that there is no hold-up problem

In response to the QCA's analysis of the hold-up problem in the QCA draft recommendation, Queensland Rail argued that there is no hold-up problem arising in respect of Queensland Rail's services provided using the North Coast Line, Mount Isa Line and West Moreton system.[448] Although Queensland Rail's submissions do not purport to address the hold-up issue in relation to the above-rail markets on the agricultural systems, the QCA considers that its analysis in response to these arguments applies equally to the agricultural systems.

As such, Queensland Rail's submissions on this issue, as well as the QCA's detailed consideration of them, are discussed in the North Coast Line analysis (section 5.6.3). In summary, the QCA considers that the issues raised by Queensland Rail are unlikely to be sufficient to address the risk of hold-up in a future without declaration. A further discussion of the economic literature relating to the hold-up problem is provided in Appendix A.

8.6.3 Promote a material increase in competition

Materiality

In the case of the South Western Route service, the Western Route service and the Central Western Route service, the QCA considers that access (or increased access) to the service, on reasonable terms and conditions, as a result of declaration would promote a material increase in competition in the above-rail freight haulage markets on the agricultural systems. The QCA's approach to the concept of materiality is discussed in section 5.6.4.

A decision to enter (or re-invest in) the above-rail freight haulage markets will involve substantial sunk investments. In a future without declaration, the presence of sunk investments gives rise to the hold-up problem. The QCA considers that the risk of hold-up in the presence of substantial sunk investments is sufficiently material that it is likely to discourage efficient firms from entering the market. In contrast, the QCA considers that declaration, and the associated access regime, is able to credibly constrain Queensland Rail's ability and incentive to exercise market power and credibly address the hold-up risk.

The QCA considers that the credible constraint on the risk of hold-up in the presence of substantial sunk investments will promote a non-trivial, material improvement in the environment for competition in the above-rail freight haulage markets on the agricultural systems. The environment for competition in a future with declaration is likely to promote efficient entry (and efficient re-investment) by all market participants, such that competitive outcomes in the above-rail freight haulage markets are materially more likely to occur.

If efficient entry is likely to be promoted in a future with declaration (compared to a future without declaration), the QCA considers that this would indicate that access as a result of declaration would promote an increase in competition that is material. In this way, the QCA is satisfied that access (or increased access) to the service, on reasonable terms and conditions, as a result of declaration would promote a material increase in competition in the above-rail freight haulage markets on the agricultural systems.

Conclusion on the hold-up problem in the above-rail freight haulage markets on the agricultural systems

In the case of the South Western Route service, the Western Route service and the Central Western Route service, the QCA considers that the uncertainties facing market participants in a

[448] Queensland Rail, sub. 33, p. 39, para. 191–92; sub. 33, attachment B, pp. 13–14.

future without declaration would affect all participants across the market, including more efficient firms. Conversely, the QCA considers that the certainties and protections offered by the access regime in a future with declaration would promote efficient entry and efficient participation in the dependent above-rail freight haulage markets.

The QCA considers that in a future without declaration Queensland Rail will not face any effective long-term constraints on its ability and incentive to exercise market power in relation to access terms. In a future without declaration, there will be an imbalance of negotiating power between Queensland Rail and access seekers/users in the presence of sunk investments. The QCA acknowledges that commercial firms face a range of uncertainties in decision-making on a daily basis. However, an imbalance in bargaining power could inhibit the ability of access seekers/users to effectively manage risks, including the risk of hold-up, which have a significant effect on the expected profitability of entry into (and operations within) the market. The presence of these risks, and an imbalance in the ability of access seekers/users to address these risks in a future without declaration, are likely to deter efficient entry or efficient investments by market participants.

In contrast, the QCA considers that a future with declaration provides a transparent statutory process under the QCA Act[449] within which terms and conditions of access can be negotiated. This process provides market participants with greater certainty that access will be provided on reasonable terms and conditions, including to address sunk investments and mitigate the risk of hold-up for access seekers. As such, the QCA considers that the protections offered by the access regime in a future with declaration will lead to a material improvement in the environment for competition in the above-rail freight haulage markets, compared to a future without declaration.

8.7 Conclusion

The QCA considers that access (or increased access) to the South Western Route service, the Western Route service and the Central Western Route service, on reasonable terms and conditions, as a result of declaration, would promote a material increase in competition in the above-rail freight haulage markets dependent on each respective service. This is because the opportunities and environment for competition in the above-rail freight haulage markets will be materially enhanced in a future with declaration, given the constraints declaration imposes on Queensland Rail's ability and incentive to exercise market power, compared to a future without declaration.

The QCA considers that criterion (a) is satisfied in respect of the South Western Route service, the Western Route service and the Central Western Route service.

[449] The provisions of the QCA Act can only be changed by parliament.

9 CRITERION (A)—THE TABLELANDS SYSTEM SERVICE

9.1 Part of the existing declared service and dependent markets

The QCA has assessed the following part of the existing declared service and the following dependent market:

Table 7 The Tablelands system service and the dependent market

Dependent market	*Part of the existing declared service upon which the market is dependent*	*Facility for the relevant part of the service*
The above-rail passenger market on the Tablelands system	Tablelands system service, that is use of the Tablelands system	Tablelands system

9.2 Geographical description of the Tablelands system

The Tablelands system consists of two distinct, unconnected sections of railway. The first railway extends from Cairns south-west to Forsayth, and the second railway extends from Croydon north-west to Normanton.[450] Both systems carry tourist passenger services only.[451]

9.3 Dependent markets

No freight is transported on the Tablelands system, and three passenger services operate on various parts of the system.[452] According to Queensland Rail:

> No freight is transported on the [Tablelands] system as a consequence of severe limitations of the rail infrastructure and the lack of a freight market scale to warrant upgrade of the system [to] operate regular freight services.
>
> The Kuranda Scenic Railway operates four one-way services per day, 28 per week between Cairns to Kuranda, and the Savannahlander (operated by Cairns Kuranda Steam) runs a four day return service weekly between March and December between Cairns and Forsayth. The Gulflander operates between Normanton and Croydon (generally two one-way seasonal scheduled services per week from mid-February to mid-December, plus charter services between April and May).[453]

The QCA considers that a relevant dependent market is the above-rail passenger market on the Tablelands system—which is the market for the transportation of passengers on the Tablelands system. The QCA is satisfied that this dependent market is separate from the market for the below-rail service.

Other dependent markets may include the downstream tourism markets in the regions covered by the Tablelands system. However, there is a lack of publicly available information on which to base an analysis of such markets, and therefore the QCA has not formed a view regarding these markets.

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[450] Queensland Rail, *Tablelands System Information Pack*, October 2016, p. 5, https://www.queenslandrail.com.au/business/acccess/Documents/Tablelands%20System%20Information%20Pack%20-%20Issue%203%20-%20October%202016.pdf.
[451] Queensland Rail, sub. 33, attachment A, p. 14.
[452] Queensland Rail, sub. 33, attachment A, p. 5.
[453] Queensland Rail, sub. 33, attachment A, p. 5.

No stakeholders made submissions that sought to identify markets dependent on the use of the Tablelands system.

9.4 Above-rail passenger market on the Tablelands system

9.4.1 The market

The three passenger services that operate on the Tablelands system for tourism purposes are:

- the Kuranda Scenic Railway passenger service
- the Gulflander passenger service
- the Savannahlander passenger service.

The Kuranda Scenic Railway service operates between Cairns and Kuranda, with approximately 1,456 one-way services per year.[454] The Gulflander service operates between Normanton and Croydon, with approximately 78 one-way services per year.[455] Both the Kuranda Scenic Railway and the Gulflander passenger services are operated by Queensland Rail.

Additionally, the Savannahlander service operates on the Tablelands system between Cairns and Forsayth, with approximately 88 one-way services per year.[456] The Savannahlander is operated by a private company, Cairns Kuranda Steam, under a Transport Service Contract (TSC) subsidy from the Queensland Government.[457]

On the Tablelands system, Queensland Rail provides both the below-rail service and the above-rail passenger services (with the exception of the Savannahlander, which is operated by a private company). Queensland Rail operates almost all above-rail passenger services in Queensland[458], including the Brisbane metropolitan commuter passenger services as well as regional travel and tourism passenger services across the Queensland Rail network. Under its Constitution, Queensland Rail is authorised to provide 'rail passenger transport services in Queensland for reward'. Importantly, Queensland Rail is not permitted to provide above-rail freight services under its Constitution; Queensland Rail's above-rail operations extend to the provision of passenger services only.[459]

9.4.2 Transport Service Contract subsidies

The Queensland Government provides subsidies for both the delivery of above-rail and below-rail services in Queensland. These subsidies are provided through the TSCs, which are managed on behalf of the Queensland Government by the Department of Transport and Main Roads (TMR).

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[454] Four one way services operate daily all year, except Christmas Day—see Queensland Rail Travel, *Kuranda Scenic Railway Timetables*, accessed 13 August 2019, https://www.ksr.com.au/Tourpackages/Pages/Timetables.aspx.

[455] Two one-way services operate per week between February and December each year—see Queensland Rail Travel, *Gulflander Travel Information*, accessed 13 August 2019, https://www.gulflander.com.au/Pages/TimetableandFares.aspx.

[456] The Savannahlander travels a return trip between Cairns and Forsayth once a week between March and December—see: Cairns Kuranda Steam, *Savannahlander General Information*, accessed 13 August 2019. http://www.savannahlander.com.au/general-information/.

[457] Queensland Rail, sub. 33, p. 38, para. 187.2.

[458] With the exception of some small local private tourism operators.

[459] Queensland Rail, *Draft Queensland Rail Access Undertaking 1*, explanatory submission, March 2012, p. 15, accessed 30 July 2019, https://www.qca.org.au/wp-content/uploads/2019/06/8354_r-qrail-qrail2012dau-expdocs2012dau-0412.pdf.

The QCA provides a detailed discussion of TSCs in section 8.4.3. Three categories of TSC subsidies are applicable to the Tablelands system:

(1) subsidies for the delivery of below-services by Queensland Rail on the Tablelands system

(2) subsidies for the delivery of above-rail passenger services by Queensland Rail, in particular the Kuranda Scenic Railway and the Gulflander passenger services

(3) subsidies for the delivery of the above-rail passenger service called the Savannahlander by a private above-rail operator, Cairns Kuranda Steam.

Queensland Rail receives revenue under the 'Rail TSC'. In 2017–18, Queensland Rail received approximately $567 million in TSC subsidies for the delivery of below-rail services across its whole network, and $1.1 billion in TSC subsidies for the delivery of above-rail passenger services across its whole network.[460] According to Queensland Rail, more than 750,000 customers travelled on its regional travel and tourism passenger services in 2017–18, with approximately 55 per cent of these customers travelling on the Kuranda Scenic Railway tourist service on the Tablelands system.[461]

Additionally, the 'Savannahlander TSC' is provided exclusively to support the Savannahlander passenger service on the Tablelands system. According to TMR:

> The Savannahlander tourist train service operates in Far North Queensland between Cairns and Forsayth between March and December each year. The service is operated by Cairns Kuranda Steam Partnership.
>
> TMR subsidises the Savannahlander tourist train service through the Savannahlander Transport Service Contract.[462]

The value of the Savannahlander TSC is commercial-in-confidence between TMR and the private operator, Cairns Kuranda Steam.

9.4.3 Statutory obligations in relation to passenger services

Special legislative provisions apply to the operation of passenger train services in Queensland. Queensland Rail has previously described these legislative provisions:

> Queensland Rail operates almost all passenger train services in Queensland. Passenger train services receive special treatment under the TI Act [Transport Infrastructure Act 1994 (Qld)] as follows:
>
> - section 265 of the TI Act – sets out an obligation for a railway manager [i.e. Queensland Rail] to bring a delayed passenger train service back to its scheduled running time (including where this may result in a freight train service being delayed);
> - section 266 of the TI Act – sets out a right for the Director General of the DTMR [Queensland Department of Transport and Main Roads] to identify the requirements for regularly scheduled passenger train services (e.g. identify the capacity requirements) and obliges railway managers to allocate rail capacity that is available or will become available to meet those requirements; and

[460] Queensland Rail does not report disaggregated data on the amount of TSC subsidies attributable to the Tablelands system—see Queensland Rail, *Financial Statements for the Year Ended 30 June 2018—Below Rail Services Provided by Queensland Rail*, December 2018, pp. 4, 15; Queensland Rail, *Annual and Financial Report 2017–18*, September 2018, p. 73 (p. 7 of the Financial Report).

[461] Queensland Rail, *Annual and Financial Report 2017–18*, September 2018, pp. 19, 42.

[462] Department of Transport and Main Roads, Rail Transport Contracts and Agreements, Queensland Government, 2019, accessed 13 August 2019, https://www.tmr.qld.gov.au/business-industry/Transport-sectors/Rail-services-and-infrastructure/Rail-Transport-Contracts-and-Agreements.

- section 266A of the TI Act – provides for the preservation of train paths for regularly scheduled passenger train services and for non-coal freight services.[463]

Queensland Rail stated that all of its passenger train services use either preserved train paths or train paths that are the subject of the Director General of DTMR's passenger train service requirements.[464]

9.5 Queensland Rail's ability and incentive to exercise market power

Queensland Rail contended that it has no ability or incentive to use any market power to affect passenger service markets.[465] These issues are considered below in relation to the above-rail passenger market on the Tablelands system.

9.5.1 Above-rail passenger services operated by Queensland Rail

On the Tablelands system, Queensland Rail provides both the below-rail service and some of the above-rail passenger services, including the Kuranda Scenic Railway service. In this way, Queensland Rail can be characterised as being vertically integrated into the above-rail passenger market on the Tablelands system.

As the provider of both the below-rail service and the above-rail passenger services, it is somewhat nonsensical to inquire whether Queensland Rail would have the ability or incentive to exercise market power against itself.

9.5.2 Above-rail passenger services operated by private operators

On the Tablelands system, a private operator (Cairns Kuranda Steam) operates the Savannahlander tourist passenger service. This service does not operate in direct competition with either of the above-rail services provided by Queensland Rail.[466] The QCA considers that despite being vertically integrated into the above-rail passenger market, it is unlikely that Queensland Rail will have the ability and incentive to exercise market power in the above-rail passenger market on the Tablelands system, with respect to above-rail passenger services operated by private operators, for reasons set out below.

Queensland Rail may be constrained in its ability to exercise market power in the above-rail passenger market on the Tablelands system

Special legislative provisions apply to the operation of passenger train services in Queensland. The QCA considers that it is likely that Queensland Rail's ability to exercise market power in a way that may adversely affect competition in the above-rail passenger market on the Tablelands system is constrained by these legislative provisions.

For example, s. 266A of the *Transport Infrastructure Act 1994* (Qld) (TI Act) identifies preserved train paths, including a train path allocated to a regularly scheduled passenger service on the commencement of the section. If a preserved train path for a regularly scheduled passenger

[463] Queensland Rail, *Draft Queensland Rail Access Undertaking 1*, explanatory submission, March 2012, p. 18.
[464] Queensland Rail, *Draft Queensland Rail Access Undertaking 1*, explanatory submission, March 2012, p. 18.
[465] Queensland Rail, sub. 33, p. 38, paras 186–89.
[466] Specifically, the Savannahlander operates between Cairns and Forsayth, whereas the Kuranda Scenic Railway service (operated by Queensland Rail) operates between Cairns and Kuranda only, and the Gulflander service (operated by Queensland Rail) operates between Normanton and Croydon. To the extent that the path of the Kuranda Scenic Railway overlaps with that of the Savannahlander (i.e. the Cairns to Kuranda portion), the QCA considers that these services are not operating in competition with each other, as each service is operated as a particular tourism package, rather than as a mode of transportation between two locations.

service becomes available for Queensland Rail to reallocate, s. 266A(2) of the TI Act prohibits Queensland Rail from allocating that train path to a different type of service (e.g. a freight service), unless at least two months written notice is given to the chief executive and the chief executive consents to the proposed reallocation. Queensland Rail is still permitted to allow the 'use' of a preserved train path for a different type of service when that train path is not being used for the service for which it is allocated.[467]

In these circumstances, if a private above-rail passenger operator operated on a preserved train path, unless the private operator willingly disclaimed the use of its allocated train path (e.g. if there are not enough tourists to justify running a service), Queensland Rail is constrained in its ability to reallocate train paths at its discretion, as that train path is preserved for that passenger service and is not available to be allocated elsewhere at the discretion of Queensland Rail.

In another example, s. 266(6) of the TI Act provides that in charging for access to regularly scheduled passenger services, Queensland Rail must not differentiate between similar regularly scheduled passenger services operating or proposed to operate over the same route at different times of the day, or set an access charge for a train path that is greater than the access charge for similar train paths. Given this provision, the QCA considers that Queensland Rail is likely to be constrained in its ability to exercise market power with respect to the access charges that it may impose on a private operator of a regularly scheduled passenger service.

The QCA considers the provisions of the TI Act will likely continue to apply to existing and future private operators of above-rail passenger services in a future with or without declaration.

9.5.3 The reliance on government subsidies

Queensland Rail contended that the provision of above-rail passenger services in Queensland would not be commercially viable without the presence of government subsidies:

> Each of Queensland Rail's passenger transport services are subsidised by the Queensland Government and would not be commercially viable without transport support payments under the TSC. Only one additional operator, Cairns Kuranda Steam, provides regular tourist passenger services on one section of the Tablelands System. Cairns Kuranda Steam also receives transport support payments from the Queensland Government and would not be commercially viable without these.
>
> The majority of costs associated with operation of the passenger network are supported by subsidies through the TSC. Accordingly, passenger network revenues do not cover a small fraction of incremental costs let alone contribute towards Queensland Rail's substantial fixed assets.[468]

The QCA considers that regular above-rail passenger services on the Tablelands system, whether operated by Queensland Rail or a private operator, are unlikely to be commercially viable without the presence of subsidies. The QCA notes that almost all above-rail passenger services in Australia receive some form of government subsidy to support their operation.[469] As such, it appears that a regular above-rail passenger service would be unlikely to be established without the presence of government subsidies.

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[467] Section 266A(6) of the TI Act.

[468] Queensland Rail, sub. 33, p. 38. paras 187.2–187.3.

[469] Centre for International Economics, *Subsidies and the social costs and benefits of public transport*, prepared for the Independent Pricing and Regulatory Tribunal of NSW, 2001, pp. 5–11, accessed 21 August 2019, https://www.ipart.nsw.gov.au/files/0395703f-9e11-4c78-9b99-9f7200c4f7a4/Report_Prepared_for_IPART_-_Subsidies_and_the_social_costs_and_benefits_of_public_transport_-_CIE_-_March_2001.pdf.

9.5.4 An enduring lack of competition in above-rail passenger markets

Queensland Rail is vertically integrated into the above-rail passenger market on the Tablelands system (and across its network), and the presence of a vertically integrated monopolist may raise prima facie concerns that the monopolist will seek to favour its related party in the above-rail passenger market to the detriment of competitors (and the environment for competition). However, for the reasons discussed below, the QCA considers that the unique nature of the above-rail passenger market on the Tablelands system means that these incentives are unlikely to arise in this market.

Queensland Rail argued that it is very unlikely that it will operate in direct competition with a private above-rail passenger service provider on any part of its network:

> There is no realistic prospect of the Queensland Government paying transport service payments to both Queensland Rail and a third party operator to establish competing passenger train services. Given the lack of commerciality of passenger train services in the absence of such payments, there will effectively be no competition as there will only be one operator for a passenger train service using a preserved train path … whether Queensland Rail or a third party.[470]

The QCA considers that it is unlikely that a private operator would operate in direct competition with Queensland Rail for the provision of a regular above-rail passenger service on the Tablelands system (or any other rail system). Based on the evidence before the QCA, it appears that above-rail passenger services in Queensland have in the past either been operated by Queensland Rail (e.g. the Kuranda Scenic Railway service), or a private operator (e.g. the Savannahlander service); but there has rarely (if ever) been two above-rail passenger services that operated in direct competition with each other (i.e. for the same route) in Queensland.

It may be argued that as a vertically integrated above-rail passenger operator, Queensland Rail may have an incentive to deny access to a private above-rail operator, in order to operate that service itself and claim the related subsidy. However, the QCA considers that Queensland Rail is only likely to act in such a way if it can be sure that it will be a recipient of the relevant subsidy. Given that TSCs are likely to be entered into prior to the service commencing (such that Queensland Rail will know if it has been awarded the subsidy), the QCA considers that it is more likely that Queensland Rail will compete with a private operator to secure the TSC (e.g. at the time of tendering for the TSCs), rather than to deny access to a private above-rail passenger operator at a later stage in the hope that it (Queensland Rail) will secure the TSC. In addition, as discussed in section 9.5.2, the QCA considers that Queensland Rail may be constrained in its ability to exercise market power to deny access in this manner.

As a result, despite the fact that Queensland Rail is vertically integrated into the above-rail passenger market in Queensland, the QCA considers that there is no evidence to demonstrate that this vertical integration has had or will have an adverse effect on competition in the above-rail passenger market on the Tablelands system.

9.5.5 Queensland Rail may have no incentive to exercise market power to affect competition in the above-rail passenger market on the Tablelands system

The QCA considers that as a business, Queensland Rail has an incentive to maximise profits. However, the evidence before the QCA suggests that any private operator of above-rail passenger services would need to rely heavily on government subsidies in order to ensure that the service was commercially viable. This suggests that above-rail passenger services, such as

[470] Queensland Rail, *Draft Queensland Rail Access Undertaking 1*, explanatory submission, March 2012, pp. 24–25.

the tourist services on the Tablelands system, are likely to be provided for public policy reasons (e.g. to promote the local tourism industry) rather than purely commercial reasons.

The QCA does not have visibility over the commercial-in-confidence terms of the above-rail subsidies (e.g. the Savannahlander TSC), so it has not conducted a detailed analysis of the effect of these subsidies on the incentives facing Queensland Rail and any private above-rail passenger operators in the above-rail passenger market on the Tablelands system. However, given the market characteristics, the QCA considers that broadly, two possibilities may arise.

The first is that Queensland Rail may have no incentive to exercise market power to affect competition in the above-rail passenger market on the Tablelands system. This may be, for example, because Queensland Rail receives a defined amount of access charges under the relevant TSC for supplying the below-rail service to the private above-rail passenger operator, or it is required to supply the below-rail service to that operator in any case, due to public policy reasons.

The second is that Queensland Rail may have an incentive to exercise market power to affect competition in the above-rail passenger market on the Tablelands system, because it perceives an opportunity to maximise profits. In this case, the relevant question then becomes whether the exercise of market power will have any effects on competition in that market. This is discussed below.

9.6 Competition in the above-rail passenger market on the Tablelands system

Declaration is unlikely to promote a material increase in competition in the above-rail passenger market

Even if it were the case that Queensland Rail has an ability and incentive to exercise market power, the QCA nevertheless considers that criterion (a) is not satisfied, because access (or increased access) to the service, on reasonable terms and conditions, as a result of declaration of the service would not promote a material increase in competition in the above-rail passenger market on the Tablelands system.

Based on the evidence before it, the QCA considers that in the above-rail passenger market on the Tablelands system, the prominent and decisive factor informing a private above-rail passenger operator's decision to enter or reinvest in the market is the provision of government subsidies. For example, Queensland Rail has reiterated its view that above-rail passenger services, whether operated by itself or a private operator, would not be commercially viable without government subsidies.[471]

In the case of a subsidised private above-rail passenger operator on the Tablelands system, if Queensland Rail sought to exercise its market power against this operator, arguably this would be a transfer of wealth between the two parties, with no effect on competition. The QCA considers that the decision of a future potential above-rail passenger operator to enter the market depends critically on the availability and terms of the government subsidy it would receive, rather than the presence of an access regime as a result of declaration.

Therefore, the QCA is not satisfied that in the case of the above-rail passenger market on the Tablelands system, access (or increased access), on reasonable terms and conditions, as a result of a declaration of the service would promote a material increase in competition in that market.

[471] Queensland Rail, sub 33, p. 7, para. 27; p. 38, para. 187.

10 CONCLUSION FOR CRITERION (A)

The QCA is not satisfied that criterion (a) is met with respect to the service as a whole. The QCA does not consider that there exists a single above-rail market for the transportation of freight that is dependent on access to the whole of the Queensland Rail service.

The QCA has therefore assessed a range of markets dependent on access to parts of the Queensland Rail service, as set out in the following table. The definitions of each service and facility is in Appendix B.

Table 8 Parts of the service and the dependent market assessed in criterion (a)

Description of the relevant part of the declared service	*Dependent market*
North Coast Route service	The above-rail freight haulage market
Mount Isa Route service	The North West Queensland minerals tenements market
West Moreton Route service	The market for coal tenements in the West Moreton region
Central Western Route service	The above-rail freight haulage market
Western Route service	The above-rail freight haulage market
South Western Route service	The above-rail freight haulage market
Tablelands system service	The above-rail passenger market

The QCA is satisfied that each part of the service identified in the table above is itself a 'service' within the meaning of s. 72 of the QCA Act.

With the exception of the Tablelands system service, the QCA is satisfied that access, or increased access, on reasonable terms and conditions as a result of declaration of each service identified above, would promote a material increase in competition in each of the identified dependent markets (as set out in Table 8 above). As a result, with the exception of the Tablelands system service, the QCA is satisfied criterion (a) is met for each part of the service identified above.

The QCA is not satisfied that access (or increased access) on reasonable terms and conditions, as a result of declaration of the Tablelands system service, would promote a material increase in competition in any market. As such, the QCA considers that this part of the service does not satisfy criterion (a).

11 CRITERION (B)—MEET TOTAL FORESEEABLE DEMAND AT LEAST COST

11.1 Introduction

Section 76(2)(b) of the QCA Act is expressed as follows:

> that the facility for the service could meet the total foreseeable demand in the market-
>
> (i) over the period for which the service would be declared; and
>
> (ii) at the least cost compared to any 2 or more facilities (which could include the facility for the service)

Sections 76(3) and (4) of the QCA Act state:

> (3) For subsection (2)(b), if the facility for the service is currently at capacity, and it is reasonably possible to expand that capacity, the authority and the Minister may have regard to the facility as if it had that expanded capacity.
>
> (4) Without limiting subsection (2)(b), the cost referred to in subsection (2)(b)(ii) includes all costs associated with having multiple users of the facility for the service, including costs that would be incurred if the service were declared.

A summary of key matters raised by stakeholders with respect to criterion (b), as well as the QCA's final recommendations, are set out in Table 9.

Table 9 Summary of key positions—s. 76(2)(b) of the QCA Act

Criterion (b)			
Issue	***Queensland Rail***	***Other stakeholders***	***QCA final recommendation***
The service	See section 2.2	See section 2.2	(a) As per s. 250(1)(b)—that is, the existing declared service which is the 'service as a whole' (b) Parts of the existing declared service, which are each a 'service', identified in the criterion (a) analysis (see Appendix B) See section 2.2
The facility	There are eight railway systems – each of which is a facility	The facility for the service is the below-rail infrastructure of the Queensland Rail network	(a) For the service as a whole, the facility is as per s.250(1)(b) (b) For the parts of the service identified in the criterion (a) analysis, each facility is the relevant rail transport infrastructure used (see Appendix B) See section 2.3
The market	A key issue is whether the product dimension of the market for the relevant services includes road haulage services	Pacific National said the relevant market is the one in which Queensland Rail provides access to the below-rail services	The relevant market is the market for the provision of access to and use of rail infrastructure by above-rail operators. The QCA considers this is either:

Criterion (b)			
		The South West Producers and Glencore focused on definitions of the market for the West Moreton system and Mount Isa Line respectively	(a) a single geographic market (b) smaller geographic markets corresponding to the parts of the service identified in the criterion (a) analysis See section 11.4
The period for assessing total foreseeable demand	The period of declaration should not be for more than 5 years	The South West Producers and Glencore said the period of declaration should be 15 years	The recommended declaration period is 15 years See section 11.5
Total foreseeable demand over the period of declaration	Key issues include identifying foreseeable demand for each of the main freight tasks (e.g. bulk freight, intermodal freight, livestock and passengers), as well as demand for road services where road services are encompassed by the relevant market for the service	The South West Producers and Glencore said the total foreseeable demand on the West Moreton system and the Mount Isa Line respectively could be met by the existing facility	The facility for each service identified can meet the total foreseeable demand in the market for each service over the period of declaration See section 11.6
At least cost compared to any two or more facilities	No information provided on costs	The South West Producers and Glencore said that given there was not another existing facility capable of providing the service, the existing facility would meet the demand at least cost compared to the cost of constructing a new facility	The facility for each service identified can meet the total foreseeable demand in the market for each service at the least cost compared to any two or more facilities See section 11.7 Criterion (b) is satisfied

11.2 The QCA's approach to assessing criterion (b)

The QCA considers that only part of the existing declared service satisfies criterion (a) (see Part B, Chapter 10). As this is a recommendation to the Minister, the QCA considers it appropriate to make findings about criterion (b) with respect to both:

- the existing service taken to be declared under s. 250(1)(b) of the QCA Act and the facility for this service as identified in s. 250(1)(b) of the QCA Act. This is the existing declared service which is the service 'as a whole'. The facility identified in s. 250(1)(b) of the QCA Act is the 'rail transport infrastructure' if the infrastructure is used for operating a railway for which Queensland Rail Limited (or a successor, assign or subsidiary) is the railway manager
- the parts of the service set out in the criterion (a) analysis, which are each a 'service' within the meaning of s. 72 of the QCA Act, and the facility for each service (see Part B, Chapter 10 and Appendix B).

11.3 The structure of criterion (b) analysis

The analysis of the 'service' and the 'facility for the service' is discussed in Part B, Chapter 2. This chapter follows on from that analysis, and discusses:

- the market for the service
- the period for assessing total foreseeable demand
- the total foreseeable demand over the period of declaration
- the analysis of whether it is least cost to meet total foreseeable demand in the market using the facility for the service, compared to any two or more facilities.

11.4 The market

11.4.1 Stakeholder submissions

Queensland Rail maintained that the QCA's analysis should be undertaken consistent with the part services Queensland Rail identified (i.e. the eight individual rail systems) and the markets in which each service is provided. Queensland Rail also said it is evident from the geographically distinct network parts, and the provision of services for a range of different purposes, that each should be examined.[472]

Pacific National said:

> There are no substitute facilities for the supply of the relevant service, being the 'use of rail transport infrastructure for providing transportation by rail'
>
> …
>
> In the context of criterion (b), the relevant 'market' is the market in which QR provides access to below-rail services. As has been recognised on numerous occasions, this is separate to the market in which PN and other freight businesses provide haulage services ...[473]

Both Glencore and the South West Producers said the relevant market, for the purpose of criterion (b), will be the market in which the facility provides the declared service (or the relevant parts of the declared service).[474] That is, the market is confined to rail infrastructure access for below-rail services.[475]

11.4.2 QCA analysis

Consistent with the approach outlined in Overview—Chapter 2, the QCA has considered the market (or markets) in which the relevant service is provided and other services (if any) that are able to be substituted for, or are otherwise competitive with, the relevant service.

The service is defined in s. 250(1)(b) of the QCA Act as:

> the use of rail transport infrastructure for providing transportation by rail if the infrastructure is used for operating a railway for which Queensland Rail Limited, or a successor, assign or subsidiary of Queensland Rail Limited, is the railway manager.

The supplier of this service is Queensland Rail. The customers acquiring this service are generally the above-rail entities operating rollingstock on the rail infrastructure, and not the end users who require goods or people to be transported. However, access rights can be held by end users, and demand for the service is ultimately driven by the needs of end users.

[472] Queensland Rail, sub. 33, p. 50, para. 246.
[473] Pacific National, sub. 9, pp. 12–13.
[474] Glencore, sub. 5, p. 6; South West Producers, sub. 4, p. 13.
[475] South West Producers, sub. 31, p. 4.

In Queensland, the existing above-rail freight operators are Pacific National, Aurizon Operations, Linfox and Watco.[476] Queensland Rail operates above-rail passenger trains over its network, but not freight services. Figure 19 illustrates the relationship between Queensland Rail and users of the relevant service.

Figure 19 The relevant service and market for the service

The QCA considers that the market for the service is a market for access to and use of rail infrastructure. No competing rail access service is being provided and, from the information available, this is unlikely to change in the future. There are no substitutes for Queensland Rail's service for an above-rail operator. While Aurizon Network also owns and operates rail infrastructure in Queensland, there is very little geographic overlap between the rail systems.

Geographic boundary of this market

Queensland Rail said it provides eight services by means of eight distinct facilities. Queensland Rail's comments go to the nature of demand for use of the network and, in particular, the proposition that demand for above-rail services is, in each case, a derived demand.

> The differing nature of each of Queensland Rail's services mean the relevant markets can only be properly assessed having regard to the derived demand specific to the service under consideration.[477]

In the context of criterion (a), the QCA considered possible markets that depend on access to the entire service and to different parts of the service, the relationship between these dependent markets and the market for the service, as well as the nature of demand and supply in each of these markets. While the QCA has not identified a market that is dependent on access to the entire service for the purpose of criterion (a), the QCA found a number of markets that are dependent on access to different parts of Queensland Rail's infrastructure.

The fact that there are different markets which are dependent on the use of Queensland Rail's infrastructure does not necessarily mean that access to this infrastructure is provided in separate markets. Moreover, it is not evident that other forms of infrastructure services are substitutable for the rail infrastructure service provided by Queensland Rail, other than another railway if it were constructed.

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[476] Watco commenced providing haulage services on the network in late 2019: Watco, sub. 48, p. 2; Watco Companies, Rail Services: Australia, accessed 7 February 2020, https://www.watcocompanies.com/services/rail/australia/.

[477] Queensland Rail, sub. 33, p. 52, para. 254.

Ultimately, the QCA does not consider it necessary to reach a conclusion on whether Queensland Rail provides access to its rail infrastructure in a single market, or in a number of smaller markets. The QCA has considered both possibilities and found that, in either case, criterion (b) is satisfied.

In summary, the market in which the Queensland Rail service is provided is a market for the provision of access to, and use of, rail infrastructure by above-rail operators. The QCA considers this is either a single geographic market, or a series of smaller geographic markets, corresponding to the parts of the service identified by the QCA in its assessment of criterion (a). There are no competitors to Queensland Rail in the relevant market or markets.

In this context, the question is whether:

- the Queensland Rail facility, as a whole, can satisfy total foreseeable demand in the single market for the below-rail service provided by Queensland Rail, or
- the facility for each part of the below-rail service provided by Queensland Rail identified in the criterion (a) analysis (see Part B, Chapter 10 and Appendix B), can satisfy total foreseeable demand in the market for each service.

11.5 Period for assessing total foreseeable demand

11.5.1 Stakeholder submissions

Queensland Rail said the period of declaration should be tailored to reflect changing market developments and dynamics relating to particular systems/services. In particular, it provided information for each of the North Coast Line, Mount Isa Line, West Moreton system and Metropolitan system, and concluded any period of declaration should not exceed five years. For instance, Queensland Rail discussed:

- road substitution—for the North Coast Line and Mount Isa Line, road freight is a strong substitute for the main commodities, and rail volumes have declined over time. Also, road competitiveness is likely to increase in future, including due to road developments and investments in higher-productivity vehicles (with performance schemes administered by the National Heavy Vehicle Regulator)
- potential rail developments—there are planned rail projects which may impact the competitive environment of the service provided by the West Moreton System, including the Inland Rail Project.[478]

Glencore and the South West Producers both said that the Queensland Rail service should be declared for a period of 15 years.

Glencore said:

> In consideration of the duration of mining operations from exploration to rehabilitation being in the vicinity of 10 – 30 years depending upon the operation, Glencore considers the reasonable period over which foreseeable demand should be assessed – and for which the service should be declared, is a period of 15 years.[479]

The South West Producers said:

> In considering … the long term tenure of coal mine investments (usually around 10 to 30 years) and the long useful life of both above and below rail investments, the South West Producers

[478] Queensland Rail, sub. 33, pp. 50–51, paras 247–250.
[479] Glencore, sub. 5, p. 15.

> consider that the relevant period [for declaration] ought to be the longest period for which the test of foreseeable demand at least cost (and all other access criteria) is met.
>
> This is on the basis that an extended declaration period will better produce efficiencies, including capitalisation on assets (including coal mine infrastructure and both the below rail infrastructure and rolling stock), and investment certainty in dependent markets.
>
> … The South West Producers consider that a reasonable period over which to declare the service is a period of 15 years …[480]

11.5.2 QCA analysis

The QCA's view is that the period for assessing total foreseeable demand in each identified market should be 15 years.

In recommending this period, the QCA considers that the need for access seekers and holders to have certainty over the period of declaration must be balanced with the legitimate business interests of the infrastructure owner (Queensland Rail) to have its service declared for only as long as the service is considered to meet the access criteria.

Long-term certainty and asset lives

Previous declarations of services provided by railways have typically been for periods of 10 years or longer. For instance, the service provided by the Tasmanian Railway was declared for 10 years, while the service provided by the Goldsworthy Railway (Western Australia) was declared for 20 years.[481]

In part, this reflects the long-lived nature of the sunk investments that are involved. For example, investments in rollingstock and mining operations typically have a useable life of 20 to 30 years.[482]

The QCA acknowledges that some investments will have a longer or shorter remaining life span.[483] Assuming that at a particular point in time (e.g. at the time of declaration), asset lives across the industry would be partially life expired, a declaration period of 10 to 15 years could be appropriate. However, the QCA notes that given the absence of evergreen renewal rights, users may be disadvantaged to the extent that their asset lives extend beyond a proposed declaration period.

Certainty of demand over the foreseeable period

Forecasts are by their nature an inexact science and the QCA acknowledges that a high level of uncertainty in relation to future demand could necessitate a shorter declaration period. However, the QCA considers that there is sufficient evidence of spare capacity over the proposed 15-year declaration period to be satisfied that the facility for the parts of the Queensland Rail service recommended for declaration could meet total foreseeable demand. It is likely that the facility (or facilities) for the service will continue to meet demand in the

[480] South West Producers, sub. 4, p. 35; sub. 31, p. 5.
[481] QRC, sub. 7, p. 10.
[482] For example, BITRE data shows that in 2018, locomotives aged between 0 and 30 years old accounted for around 80 per cent of all Australian narrow gauge locomotives in operation. See Bureau of Infrastructure, Transport and Regional Economics (BITRE), *Trainline 6*, statistical report, Australian Government, 2018, p. 63; South West Producers, sub. 4, p. 52; Glencore, sub. 5, pp. 13, 15.
[483] For instance, South West Producers (sub. 40, p. 11) said that investments (e.g. New Acland Stage 3) are more likely to be made earlier in the declaration period.

relevant market without the need for expansion over the next 15 years. As such, a shorter period is not necessary.

Timing of future market changes

It is not evident that there would be substantial changes over the next 15 years in any of the markets in which the service or identified parts of the service are provided, which would affect whether the service or identified parts of the service provided by Queensland Rail would continue to satisfy criterion (b). For example, there are no foreseeable major developments of any of Queensland Rail's rail systems.

The exception is the Inland Rail project, which is expected to be operational in 2024–25.[484] This project will connect Melbourne with Brisbane via an inland route. Queensland Rail said that if this project continues in its current form, it is likely to affect the competitive environment in respect of the West Moreton system. In particular:

> the [ARTC] Inland Rail Business Case is predicated on picking up thermal coal volumes from the Moreton Basin currently transported on the West Moreton system, providing that 'up to 19.5 million tonnes of coal is expected to use Inland Rail …'[485]

The South West Producers considered that the Inland Rail project will not provide a substitute for the West Moreton Route service, in part because it is intended as an interstate freight link for general freight haulage between Melbourne and Brisbane, and not as a dedicated track for the haulage of Queensland bulk freight (e.g. coal, agricultural products) from origin and destination points within Queensland. Also, the ARTC business case is based on a range of assumptions, and the charging regime is unknown.[486]

Queensland Rail also said there are proposals to develop a Surat Basin Rail link from the Wandoan project to the Port of Gladstone (together with a Central Surat Rail link) that if developed, would affect the West Moreton system's competitive environment.[487]

The QCA considers that there are difficulties in having regard to these proposals. The QCA considers there are a number of uncertainties in relation to the Inland Rail project, including uncertainties as to the final alignment (route), its operational characteristics (e.g. operating in conjunction with, or in competition with, Queensland Rail systems), the charging regime and the expected completion date of the project. Additionally, there is a lack of publicly available information to conclude that development of the Surat Basin Rail and Central Surat Rail links is actively progressing.[488]

To the extent these projects were completed and could be demonstrated to materially affect circumstances on these systems during the declaration period, if declared, it would be open for Queensland Rail to submit a revocation application for the relevant service at that time.

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[484] ARTC, Inland Rail, accessed 25 October 2018, https://inlandrail.artc.com.au/.
[485] Queensland Rail, sub. 33, p. 51, para. 248.
[486] South West Producers, sub. 4, p. 19; sub. 31, p. 5; sub. 40, p. 12.
[487] Queensland Rail, sub. 33, p. 51, para. 248.
[488] Queensland Government, Department of State Development, Manufacturing Infrastructure and Planning, *Surat Basin Infrastructure Corridor State Development Area*, accessed 13 November 2019, http://statedevelopment.qld.gov.au/coordinator-general/state-development-areas/current/surat-basin-infrastructure-corridor-state-development-area.html.

Periodic review of declarations

The QCA considers that it is appropriate for any declaration to be periodically reviewed.[489] The QCA considers that a 15-year declaration period appropriately provides for such a periodic review of the declaration of the service, by adequately balancing the legitimate business interests of Queensland Rail, while providing a period of certainty for access seekers and holders in the context of industries that require large sunk investments.

In balancing each of these factors, the QCA's view is that a 15-year period for assessing total foreseeable demand is appropriate for the service and each identified part of the service.

11.6 Total foreseeable demand over the declaration period

11.6.1 Stakeholder submissions

Queensland Rail submitted that 'the QCA will have to identify total foreseeable demand in the market that encompasses the services provided by each of the distinct rail facilities over the declaration period'.[490] It said this involves identifying 'foreseeable demand for the derivative service of transport on each rail system for each of the main freight tasks (i.e. bulk freight, intermodal freight, livestock and passengers)' and identifying 'all of the foreseeable demand in the relevant market over the declaration period', including demand for road services where road services are also are also encompassed by the relevant market for the service.[491]

Pacific National considered that:

> it is clear that the QR infrastructure (either in its current form or as expanded) would be able to meet foreseeable demand in this market at lowest cost, compared to two or more facilities. The NCC has previously observed that railways typically exhibit natural monopoly properties due to high fixed costs and significant economies of scale. The QR rail infrastructure is no exception in this regard.[492]

11.6.2 QCA analysis

There is no evidence to suggest that total foreseeable demand for the below-rail service will exceed the capacity of the Queensland Rail network.

Queensland Rail confirmed that there is spare available capacity across the network[493] and, on current (and expected) utilisation rates, it appears this is likely to continue in the foreseeable future. Further, even where different demand scenarios may eventuate—this was discussed, for example, in respect of the West Moreton Route service (in the context of a 'low' and 'high' tonnage scenario)—there is no information to show this demand cannot be met by the spare capacity available.[494]

Based on the available information, each of Queensland Rail's rail systems is currently operating below capacity and has historically operated below capacity.[495] There is no information to suggest that total foreseeable demand over the proposed 15-year declaration period would at any time exceed the existing available capacity on any of these systems.

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[489] Section 87A of the QCA Act provides for a declaration to be reviewed at least 6 months, but not more than 12 months before the expiry date of a declaration.
[490] Queensland Rail, sub. 8, p. 5, para. 36.
[491] Queensland Rail, sub. 33, pp. 52–53, para. 256.
[492] Pacific National, sub. 9, p. 13.
[493] Queensland Rail, sub. 33, p. 4, para. 8.
[494] South West Producers, sub. 40, p. 14.
[495] Queensland Rail, sub. 33, attachment A.

As such, the QCA is satisfied that the facility for the service (and the facility for each part of the service identified by the QCA–see Appendix B) can meet the total foreseeable demand in the relevant market over the period for which the service (or each part of the service) would be declared.

11.7 At the least cost compared to any two or more facilities

11.7.1 Stakeholder submissions

Queensland Rail did not provide details regarding the costs across its rail systems in providing the service, or information regarding the consideration of 'any 2 or more facilities' in considering 'least cost'. However, it noted that its services are subsidised by TSC payments.[496] There is limited publicly available data on such costs across Queensland Rail's systems.[497]

11.7.2 QCA analysis

The service provided by means of the Queensland Rail network is a rail access service (i.e. a service needed for the operation of trains). There is currently no other existing facility (i.e. rail transport infrastructure) that is capable of meeting any part of the foreseeable demand for the rail access service Queensland Rail provides, either in a single market or in a series of smaller markets. Put another way, there is no other railway network in Queensland that duplicates Queensland Rail's rail systems or extends across similar routes.

The QCA has considered whether the development of a potential alternative facility could meet part or all of the foreseeable demand in the relevant market or markets, and if so at what cost. It is clear that the development of such a potential alternative facility, whether for the whole service or an identified part of the service, would require extensive costs—including land acquisition, planning, design, development and construction. For the entire railway, approximately 6,000 km in length, this would cost billions of dollars. For any part of the service, the costs of duplication would obviously be less, but still sizable.

The NCC noted that it usually costs more to construct a new facility than to extend an existing one:

> Railways generally exhibit natural monopoly characteristics and across a range of demand levels continued extension of an existing facility will usually involve less cost than constructing a new facility. As some of the major construction costs of a railway, such as earthworks, construction of bridges and signalling infrastructure are avoided or at least minimised when extending an existing railway, extension will almost always be cheaper than duplicating a facility. The Organisation for Economic Co-operation and Development (OECD), for example, has reported that expanding from single to double track roughly quadruples capacity at less than double the costs ...[498]

When the cost of providing the service using the existing Queensland Rail facility—which has spare capacity—is compared with the cost of providing the service using two or more facilities (including a potential alternative facility), and similarly for each relevant facility for each part of the service, it is clear that each existing Queensland Rail facility will meet total foreseeable demand in each market at the least cost. Total foreseeable demand is clearly not satisfied at

[496] Queensland Rail, sub. 33, p. 24, para. 128.

[497] An exception is the West Moreton system, which Queensland Rail (sub. 33, p. 68, para. 343) said generates around '$44m per year in access revenue which is sufficient to cover operating costs'.

[498] NCC, *Central Queensland Coal Rail Network, Application for declaration of four services comprising the Central Queensland Coal Network under s. 44F(1) of the Trade Practices Act 1974 (Cth),* draft recommendation, 14 September 2010, p. 28.

least cost by building another potential alternative facility to be used in addition to the existing Queensland Rail facility, in whole or in part, compared to simply using the existing Queensland Rail facility, in whole or in part, to satisfy total foreseeable demand.

Therefore, the QCA considers that the facility for the service (or the facilities for each identified part of the service) could meet the total foreseeable demand in the relevant market or markets at the least cost compared to any two or more facilities.

11.8 Conclusion

The QCA considers that the facility providing the Queensland Rail service as a whole satisfies criterion (b). That is, Queensland Rail's facility could meet total foreseeable demand in the market over the period for which the service would be declared, and at the least cost compared to any two or more facilities.

The QCA is also satisfied that the facility for each identified part of the service could meet total foreseeable demand in the market over the period for which the respective part of the service would be declared, and at the least cost compared to any two or more facilities. This is because, based on the evidence, each facility for each identified part of the service:

- has existing spare capacity and could meet total foreseeable demand in each market over the proposed declaration period
- could meet total foreseeable demand in the market at least cost compared to any two or more facilities.

12 CRITERION (C)—STATE SIGNIFICANCE

12.1 Introduction

Section 76(2)(c) of the QCA Act is expressed as follows:

> that the facility for the service is significant, having regard to its size or its importance to the Queensland economy

A summary of key matters raised by stakeholders with respect to criterion (c), as well as the QCA's final recommendations, are set out in Table 10.

Table 10 Summary of key positions— s. 76(2)(c) of the QCA Act

Criterion (c)			
Issue	***Queensland Rail***	***Other stakeholders***	***QCA final recommendation***
Queensland Rail's service as a whole (i.e. as defined in s. 250(1)(b) of the QCA Act)	If the network is assessed as a whole, the entire network satisfies criterion (c) But the relevant inquiry is whether the eight facilities for the eight services (as identified by Queensland Rail) satisfy criterion (c)	Pacific National, Glencore, the South West Producers and GrainCorp each said that the Queensland Rail network as a whole satisfied criterion (c)	Criterion (c) is satisfied See section 12.6
Each facility for each service identified by the QCA (see section 2.3)	North Coast Line, Metropolitan system, and Mount Isa Line each satisfy criterion (c) West Moreton system, Western system, South Western system, Central Western system and Tablelands system each do not satisfy criterion (c)	Glencore submitted that the Mount Isa Line (including the section of the North Coast Line that enables connection to the Port of Townsville) satisfies criterion (c) The South West Producers submitted that combinations of the West Moreton system and Metropolitan system satisfy criterion (c) Watco submitted that the South Western, Western and Central Western systems satisfy criterion (c) Pacific National and GrainCorp did not agree with Queensland Rail's approach but in any event considered each system is significant	Criterion (c) is satisfied in respect of each facility for each service identified by the QCA See section 12.7

12.2 The QCA's approach to assessing criterion (c)

12.2.1 Stakeholder submissions

Queensland Rail disagreed with the QCA's interpretation of criterion (c) in the draft recommendation that the word 'or' means only one of the two factors in s. 76(2)(c) of the QCA Act is required to be satisfied in order for criterion (c) to be satisfied.

Queensland Rail submitted that s. 76(2)(c) of the QCA Act, properly construed, requires a facility to be significant having regard to both its size and its importance to the Queensland economy.[499] It argued that 'the interpretation of the meaning of "size" is often contextualised and significantly affected by the mutually supportive consideration of the economic "importance" of a facility' (original emphasis).[500]

Queensland Rail indicated that there was support for this approach 'apparent' in the National Competition Council's (NCC) assessment in practice under Part IIIA of the *Competition and Consumer Act 2010* (Cth) (CCA).[501] Queensland Rail further submitted that the NCC has not previously concluded that a facility is of national significance[502] solely because of its 'size' on physical dimensions alone, without supporting evidence pertaining to the economic importance of the facility.[503]

Accordingly, with regard to assessing the size of a facility, Queensland Rail submitted that:

> first, the economic significance of the facility must be taken into account when assessing whether the facility is of sufficiently significant 'size' to be of 'significance', notwithstanding the use of the word 'or' in criterion (c); and
>
> secondly, a rail system's length or geographic coverage should not, in and of itself, be determinative of whether the facility is of sufficient 'size' to be of 'significant' [sic].[504]

In relation to what is relevant in considering 'size', Queensland Rail submitted that the NCC's conclusions with respect to the 'size' of the Herbert River cane railway network are 'highly material' when assessing the systems operated by Queensland Rail.[505] Queensland Rail also noted that the QCA's recognition that the throughput of goods or services using a facility can be relevant to determining size is grounded in jurisprudence[506] and that by that measure rail systems with comparatively low levels of traffic are unlikely to satisfy the 'size' test in criterion (c).[507]

Queensland Rail further submitted that the principles for determining 'national significance' (under Part IIIA of the CCA) are of direct relevance for the QCA in applying criterion (c).[508] Queensland Rail considered the following approach 'reflects an accurate application of the law, and the economic principles underpinning the law, for each relevant facility':

> First, regarding 'size', the physical dimensions, whilst relevant, are to be informed by a consideration of the relevant economic activity facilitated by the system.
>
> Secondly, regarding 'importance to the Queensland economy':
>
> 305.2.1 the total value and volume of throughput is highly relevant, especially with regard to the extent this throughput contributes to Queensland exports, movement of imports from Queensland ports, and regional development and employment in the Queensland freight industry;
>
> 305.2.2 the utilisation of the facility is highly relevant, reflecting the level of economic demand for the service provided by the facility; and

[499] Queensland Rail, sub. 33, pp. 58–59, paras 286–90.
[500] Queensland Rail, sub. 33, p. 58, para. 286.
[501] Queensland Rail, sub. 33, p. 58, para. 287.
[502] Applying the relevant test under Part IIIA of the *Competition and Consumer Act 2010* (Cth).
[503] Queensland Rail, sub. 33, p. 59, para. 288.
[504] Queensland Rail, sub. 33, p. 58, para. 280.
[505] Queensland Rail, sub. 33, pp. 59–60, paras 293–294.
[506] Queensland Rail, sub. 33, p. 60, paras 295–296.
[507] Queensland Rail, sub. 33, p. 60, para. 297.
[508] Queensland Rail, sub. 33, pp. 60–61, para. 301.

305.2.3 the commercial viability of the facility is relevant, reflecting the economic viability of the infrastructure.[509]

The South West Producers submitted that the QCA's interpretation of criterion (c) is consistent with the approach applied by the NCC.[510] They argued that Queensland Rail's reference to the NCC's assessment of the Herbert River cane railway under Part IIIA of the CCA is inappropriate, including because the Herbert River cane railway is a different railway and service, and it was being assessed for 'national significance'.[511]

GrainCorp submitted that Queensland Rail has conflated size and economic significance, which are separate considerations under the QCA Act. It argued that Queensland Rail's interpretation 'is manifestly at odds with the plain and ordinary meaning of the statute'.[512]

12.2.2 QCA approach

As set out above, in response to the draft recommendation, Queensland Rail submitted that s. 76(2)(c), properly construed, requires a facility to be significant having regard to both its size *and* its importance to the Queensland economy.[513]

The QCA approaches criterion (c) on the basis that it must have regard to both considerations in deciding whether the criterion is satisfied. However, the use of the word 'or' clearly indicates that the criterion may be satisfied based on only one of these considerations. For example, a facility that is relatively small in size may nevertheless be important to the Queensland economy. The statute also leaves room for the possibility that a 'large' facility may satisfy this criterion, even if its economic importance is debatable.

The QCA Act does not prescribe that the QCA must take into account specific indicators of 'size' or 'importance to the Queensland economy' in undertaking its assessment. While previous regulatory decisions in relation to the 'national significance' of other facilities under the CCA may be relevant, they are not determinative. Further, factors that were identified by the NCC as relevant to its assessment of the 'national significance' of other facilities, such as the Herbert River cane railway, may or may not be relevant to the assessment of the rail facilities before the QCA in the context of Part 5 of the QCA Act. The QCA acknowledges that depending on the facility being assessed, there may be indicators of 'size' that could be said to have an 'economic' flavour which are relevant to the assessment. The assessment of the significance of a facility—having regard to 'size' and 'importance to the Queensland economy'—and the weight that is attributed to any indicators, is a matter of judgement.

In *Pilbara Infrastructure Pty Ltd v Australian Competition Tribunal and Ors*[514] the High Court (by majority) observed that the equivalent provision of 'national significance' in Part IIIA of the CCA (which is broadly consistent with criterion (c), but not in identical terms)[515] 'may also direct attention to matters of broad judgment of a generally political kind'.[516] Accordingly, the QCA

[509] Queensland Rail, sub. 33, p. 61, para. 305.
[510] South West Producers, sub. 31, p. 17; sub. 40, p. 42.
[511] South West Producers, sub. 40, p. 42.
[512] GrainCorp, sub. 52, p. 11.
[513] Queensland Rail, sub. 33, pp.58–59, paras 286–90.
[514] (2012) 246 CLR 379.
[515] At the time of the High Court decision, this was s. 44G(2)(c) of the CCA; it is now s. 44CA(1)(c) of the CCA.
[516] (2012) 246 CLR 379 at [43]. This observation followed on from the majority's views in relation to the application of the equivalent of criterion (d) at [42].

has approached the assessment of significance as a matter of judgment rather than a matter of precise calculation.[517]

Ultimately, whether this criterion is satisfied, and the basis on which this conclusion is reached, depends on the weight given by the decision-maker to the considerations prescribed in s. 76(2)(c).

12.3 The structure of criterion (c) analysis

The analysis of criterion (c) is set out as follows:

- a summary of stakeholder submissions on whether criterion (c) is satisfied
- a summary of data with respect to each of Queensland Rail's rail systems
- consideration of criterion (c) with respect to the facility for the service as a whole (i.e. the service as defined in s. 250(1)(b) of the QCA Act)
- consideration of criterion (c) with respect to the facilities for the parts of the service identified in the QCA's assessment of criterion (a) (see Appendix B).

12.4 Stakeholder submissions on criterion (c)

Queensland Rail accepted that if the network is assessed 'as a whole', it would satisfy criterion (c).[518] However, Queensland Rail considered that the relevant inquiry is whether the eight facilities for the eight services (as identified by Queensland Rail) that it provides, each individually satisfies criterion (c).

In its view:

- The North Coast Line satisfies criterion (c), due to its physical size and its strategic alignment, servicing four significant ports and major centres in Queensland.[519]
- The Mount Isa Line satisfies criterion (c), due to its size and importance to the Queensland economy's transportation of bulk minerals and industrial products.[520]
- The Metropolitan system satisfies criterion (c), as it is of 'sufficient size' and clear importance to the Queensland economy.[521]

The remaining systems, in Queensland Rail's view, do not satisfy criterion (c):

- The West Moreton system 'is not infrastructure that is of state significance with regard to its size or its importance to the Queensland economy (measured by contribution to exports and gross state product) to satisfy criterion (c)'.[522] Further, it is not relevantly of state significance, due to the low volume of freight hauled compared to Queensland's total coal exports.[523]

[517] See also NCC, *Declaration of Services, A guide to declaration under Part IIIA of the Competition and Consumer Act 2010 (Cth)*, April 2018 edn, p. 39, para. 5.4.
[518] Queensland Rail, sub. 33, p. 55, para. 262.
[519] Queensland Rail, sub. 33, pp. 63, 65, paras 309, 322.
[520] Queensland Rail, sub. 33, pp. 63, 66, paras 309, 328.
[521] Queensland Rail, sub. 33, p. 63, paras 309, 314.
[522] Queensland Rail, sub. 33, p. 68, para. 344.
[523] Queensland Rail, sub. 33, p. 63, para. 310.

- The Western, South Western, Central Western and Tablelands systems are not significant for the purpose of criterion (c), due to low volume/value of freight hauled with regard to contribution to, as appropriate, Queensland's exports, imports or domestic freight industry, low utilisation rates and the high degree of dependence on TSC revenue indicating a lack of commercial viability.[524] According to Queensland Rail, while the QCA set out throughput volumes in the context of considering 'size' in the draft recommendation, these volumes are either not relied on by the QCA or do not support the QCA's findings in the draft recommendation.[525]

The South West Producers submitted that the Queensland Rail network as a whole satisfied criterion (c).[526] They also considered that the West Moreton system and parts of the Metropolitan system, which provide the 'West Moreton corridor coal rail access service' (as defined by the South West Producers), satisfied criterion (c).[527] Their view was the same with regard to the West Moreton and Metropolitan systems together.[528]

Pacific National submitted that the Queensland Rail network should be considered as a whole, and that as a whole it satisfied criterion (c). Pacific National argued that in any event, each part of the network identified by Queensland Rail is significant.[529]

Glencore said that the Queensland Rail network as a whole satisfied criterion (c).[530] Glencore considered that criterion (c) is satisfied for the Mount Isa Line (including rail links to the Port of Townsville)[531], which is 'highly significant both having regard to its size (being approximately 1032 kilometres in length) and in its significance to the Queensland economy (as a major freight route for the North West minerals province, and an import [sic] regional route for livestock, agricultural products and regional passenger services)'.[532]

GrainCorp also submitted that Queensland Rail's network should be considered as a whole, and that as a whole it satisfied criterion (c). GrainCorp argued that in any event, each of the systems identified by Queensland Rail are also significant having regard to their size and importance to the Queensland economy.[533] It commented that the South Western, Western and Central Western systems support the transfer of grain and the viability of the State's grain export industry.[534]

Watco submitted that the South Western, Western and Central Western systems satisfy criterion (c), having regard to size. It also considered that these rail systems are significant having regard to their importance to the Queensland economy. While Watco recognised that these systems do not transport large volumes of bulk freight, it stated that they 'do provide key transport links accessing regional Queensland agricultural markets and communities'.[535]

Linfox submitted that the Central West rail system (as it defined it) satisfied criterion (c).[536]

[524] Queensland Rail, sub. 33, pp. 63, 70–74, paras 311, 359, 370, 379, 386.
[525] Queensland Rail, sub. 33, p. 68, para. 347.
[526] South West Producers, sub. 4, pp. 5, 44.
[527] South West Producers, sub. 4, pp. 5, 6, 44–49; sub. 16, pp. 18–25.
[528] South West Producers, sub. 31, pp. 17–18; sub. 40, pp. 42–45.
[529] Pacific National, sub. 9, p. 12; sub. 37, p. 15.
[530] Glencore, sub. 5, p. 16.
[531] Glencore, sub. 41, p. 2.
[532] Glencore, sub. 5, p. 3.
[533] GrainCorp, sub. 52, p. 11.
[534] GrainCorp, sub. 52, p. 11.
[535] Watco, sub. 48, p. 5.
[536] Linfox, sub. 50, para. 3.2.

12.5 Data on Queensland Rail's rail systems

This section contains information about the Queensland Rail network by reference to its systems (as widely described and understood by Queensland Rail and users).

12.5.1 North Coast Line

The North Coast Line extends from Nambour (near Brisbane) north along Queensland's eastern coastline to Cairns, consisting of approximately 1,428 km of track (excluding Parana to Rocklands and Kaili to Durroburra).[537]

The line connects and services the major population centres of Brisbane (via the Metropolitan system), Bundaberg, Gladstone, Rockhampton, Mackay, Townsville and Cairns. It also connects to various major ports, including the Ports of Townsville, Mackay, Gladstone and Brisbane.[538] The North Coast Line interconnects with the Metropolitan system (at Nambour), the Mount Isa Line (at Stuart, near Townsville), and the Tablelands system (at Cairns). Aurizon Network's Central Queensland Coal Network (CQCN) also intersects with the North Coast Line at various points in the Central Queensland region.

The North Coast Line is the principal regional freight and passenger line within the Queensland Rail network.[539] The system carries predominantly intermodal freight (comprising 86 per cent of total freight carried in gtk terms[540] in 2017–18)[541] between Brisbane and major regional centres in Queensland, including Rockhampton, Mackay, Townsville and Cairns. It also carries:

- sugar traffic from sugar mills to the Ports of Mackay and Townsville
- minerals exports, mining inputs and industrial products between the Mount Isa Line and the Port of Townsville
- various agricultural products from the Mount Isa Line and Central Western system to various export ports, including the Port of Brisbane
- long-distance passenger and tourism services, including on the Spirit of Queensland (Brisbane to Cairns), the Spirit of the Outback (Brisbane to Longreach), the Tilt Train (Brisbane to Rockhampton) and The Westlander (Brisbane to Charleville).[542]

In 2017–18, the North Coast Line transported approximately 6,700 million gtk of freight and passengers.[543] A breakdown of volumes carried by category is provided in Figure 20.

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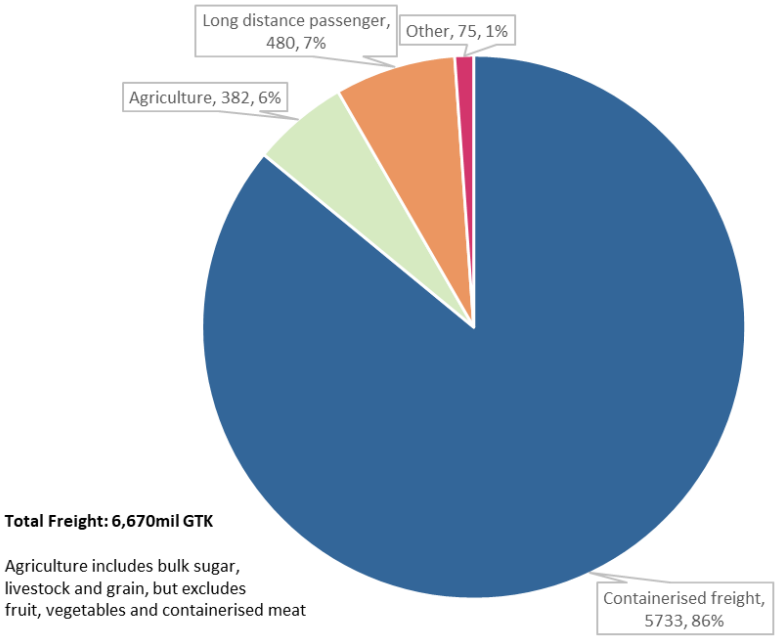
[537] Queensland Rail, sub. 33, pp. 63–64, para. 315.
[538] Queensland Rail, sub. 33, pp. 63–64, para. 315.
[539] Queensland Rail, North Coast line system, https://www.queenslandrail.com.au/forbusiness/the-regional-network/north-coast-line-system.
[540] Gross tonne kilometres (gtk) is a measure of the level of operating activity on a particular rail system. It is the product of the total gross weight of the train (i.e. including the locomotives and wagons used, as well as the goods and passengers carried) and the distance (in kilometres) travelled by the train.
[541] Queensland Rail, *2017–18 Annual Performance Report, Queensland Rail Access Undertaking 1*, December 2018, p. 11, https://www.queenslandrail.com.au/business/acccess/Compliance%20and%20reporting/2017-18%20QCA%20Annual%20Performance%20Report.pdf.
[542] Queensland Rail, *North Coast Line System North Information Pack*, October 2016, p. 6, https://www.queenslandrail.com.au/business/acccess/Documents/North%20Coast%20Line%20North%20System%20Information%20Pack%20-%20Issue%203%20-%20October%202016.pdf; Queensland Rail Travel, https://www.queenslandrailtravel.com.au/.
[543] Queensland Rail, *2017–18 Annual Performance Report, Queensland Rail Access Undertaking 1*, December 2018, p. 11.

Figure 20 North Coast Line freight volumes by commodity in 2017–18 (million gtk)



Source: Adapted from Queensland Rail, 2017–18 Annual Performance Report, Queensland Rail Access Undertaking 1, p. 11.

Queensland Rail submitted that in 2016–17 approximately 40 per cent of the state's sugar exports were carried on the North Coast Line, along with approximately 12 per cent of the state's total containerised freight.[544] Linfox noted that the train services it operates on the North Coast Line (and Central Western system) 'deliver essential items to communities across Central, Western and Northern Queensland and provide a critical link for regional Queensland agricultural, manufactured and bulk commodity products to reach southern and export markets'.[545]

Queensland Rail data show that in 2017–18, Queensland Rail received approximately $46.6 million in access charges for the below-rail service it provided on the North Coast Line.[546]

12.5.2 Mount Isa Line

The Mount Isa Line extends from Stuart (near Townsville) west to Mount Isa, including the Flynn to Phosphate Hill branch line. Taken altogether, the system is approximately 1,039 km in length, consisting of a non-electrified single track. The Mount Isa Line services a number of regional communities, and acts as a critical link from the North West Minerals Province to the Port of Townsville (via the North Coast Line between Stuart and Townsville). It also has a significant 'back-haul' freight task in delivering mining and industrial inputs to the Mount Isa region.[547]

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[544] Queensland Rail, sub. 33, p. 64, para. 319.

[545] Linfox, sub. 50, para. 1.4.

[546] Queensland Rail, *Financial Statements for the Year Ended 30 June 2018, Below Rail Services Provided by Queensland Rail*, p. 4, https://www.queenslandrail.com.au/business/acccess/Compliance%20and%20reporting/2017-18%20Below%20Rail%20Financial%20Statements.pdf.

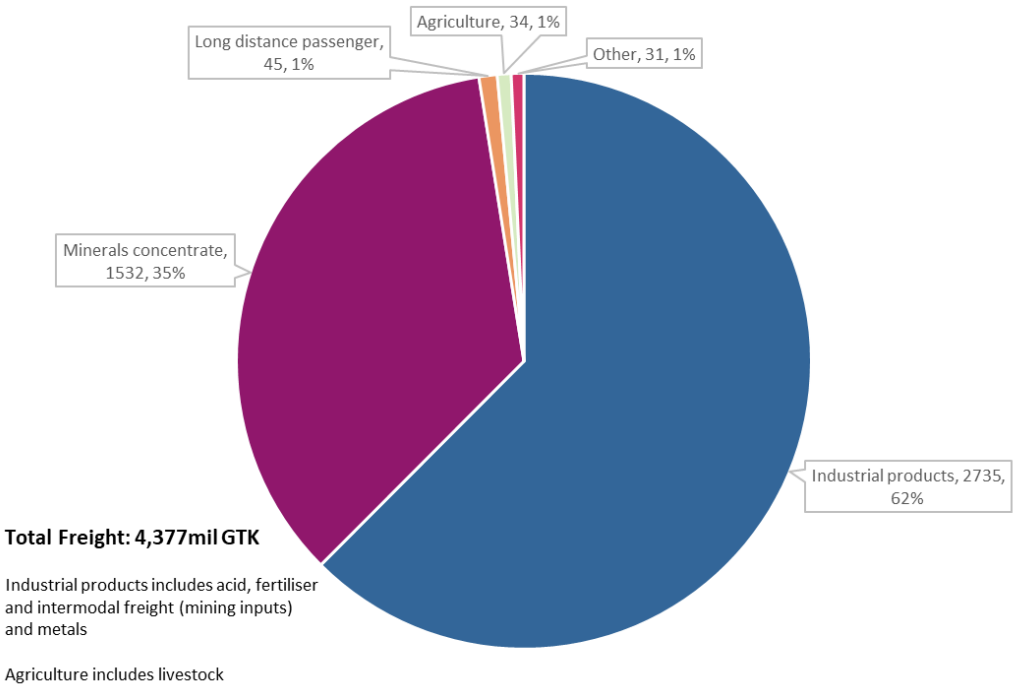
[547] Queensland Rail, sub. 33, p. 65, para. 323; Queensland Rail, *Mount Isa System Information Pack*, February 2017, p.5, https://www.queenslandrail.com.au/business/acccess/Documents/Mt%20Isa%20System%20Information%20Pack%20-%20Issue%203.1%20-%20February%202017.pdf.

The Mount Isa Line carries predominantly:

- industrial products and metals—including acid, fertiliser, intermodal freight (mining inputs) and metals, totalling 2,735 million gtk in 2017–18, or 62 per cent of total freight carried on the line
- minerals concentrate—including copper, lead, zinc, magnetite and sulphur, totalling 1,532 million gtk in 2017–18, or 35 per cent of total freight carried on the line
- agriculture (including livestock), passengers and other freight—including the long-distance 'The Inlander' (Townsville to Mount Isa) passenger and tourism service.[548]

In 2017–18, the Mount Isa Line transported 4,377 million gtk of freight and passengers. A breakdown of volumes carried by commodity on the Mount Isa Line is provided in Figure 21.

Figure 21 Mount Isa Line freight volumes by commodity in 2017–18 (million gtk)



Source: Adapted from Queensland Rail, 2017–18 Annual Performance Report, Queensland Rail Access Undertaking 1, p. 11.

Queensland Rail previously described the Mount Isa Line as 'of particular national interest as it runs along some of the world's largest deposits of copper, lead, zinc, silver and phosphate rock', also stating that the region around the Mount Isa Line produces 75 per cent of Queensland's non-coal mineral output.[549] According to Queensland Rail, the asset replacement value of the Mount Isa Line (as at 2012) was $12.8 billion, with the regional mineral production using the line worth approximately $6.67 billion.[550]

[548] Queensland Rail, *2017–18 Annual Performance Report, Queensland Rail Access Undertaking 1*, December 2018, p. 11.

[549] Queensland Rail, *Mount Isa System Information Pack*, February 2017, p. 5, https://www.queenslandrail.com.au/business/acccess/Documents/Mount%20Isa%20system%20information%20pack%20-%20Issue%203%20-%20October%202016.pdf.

[550] Queensland Rail, *Mount Isa Line Rail Infrastructure Master Plan*, 2012, p. 6, https://www.queenslandrail.com.au/business/acccess/Documents/Maps/QR4159.1%20Infrastructure%20Master%20Plan%202012_Updated_LR.pdf.

The Mount Isa Line is the only Queensland Rail system that operates on an entirely commercial basis—it does not receive or rely upon below-rail subsidies to remain commercially viable to operate.[551] In 2017–18, Queensland Rail received approximately $74.3 million in access charges from users of the Mount Isa Line.[552] In June 2019, the Queensland Government announced $20 million in annual funding for four years in incentives for commercial freight users on the Mount Isa Line, with rail payments paid to eligible users of the rail service.[553]

Glencore stated that '[t]he mineral deposits in the North West region are brought to market by miners such as Glencore using the Mount Isa Line as a critical supply chain—with the production brought to market making up 75 per cent of Queensland's non-coal mineral output'.[554]

Glencore also submitted that the Mount Isa Line is significant due to its importance to the Queensland economy, when having regard to the Mount Isa Line as a national key freight route and the significant economic contributions to Queensland from the mining, processing and other industries that depend on access to the relevant service.[555] In 2016–17, contributions of the resources sector in the North West Queensland region included:

- $1.3 billion in gross regional product (in the North West region)
- $397 million in wages paid to 2,709 full time employees
- $544 million in royalties
- $354 million spent to the benefit of local businesses and community organisations.[556]

12.5.3 West Moreton system

The West Moreton system extends from Rosewood west to Miles, consisting of approximately 314 km of non-electrified, predominantly single track.[557] At Rosewood (in the east), the West Moreton system connects with the Metropolitan system; at Miles (in the west), the West Moreton system connects with the Western system; the Western system's Dalby to Meandarra branch line also connects to the West Moreton system at Dalby. Queensland Rail submitted that the total haul distance from the furthest West Moreton system coal mine to the Port of Brisbane is 380 km.[558]

The West Moreton system (together with the Metropolitan system) serves three mines that export via the Port of Brisbane—Jeebropilly (New Hope), New Acland (New Hope) and Cameby Downs (Yancoal).[559] There are other coal mines near the West Moreton system that supply

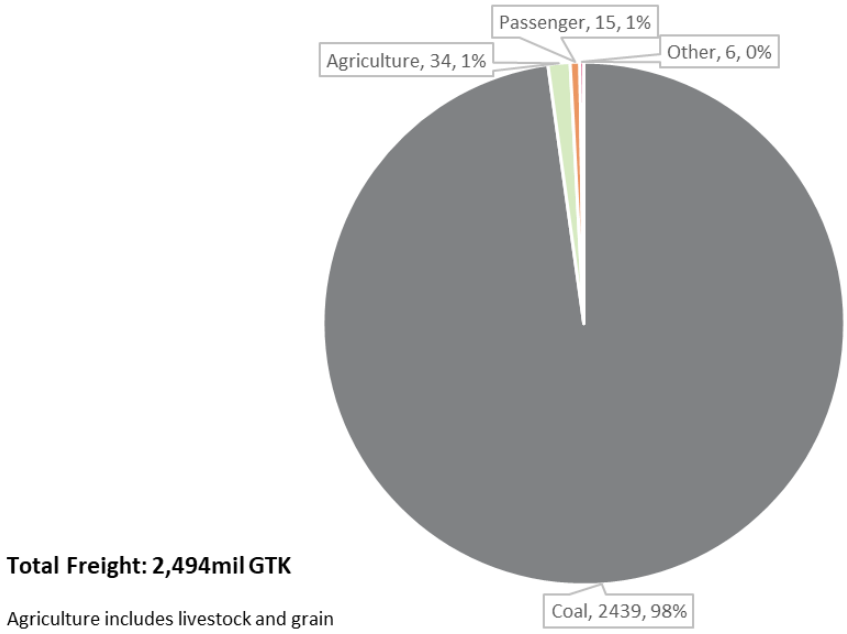
[551] Queensland Rail, sub. 8, p. 1, para. 4.
[552] Queensland Rail, *Financial Statements for the Year Ended 30 June 2018: Below Rail Services Provided by Queensland Rail*, 2018, p. 4.
[553] A Palaszczuk, J Trad and M Bailey, *More minerals freight to go on the fast track thanks to rail subsidy,* media release, Queensland Government, 18 November 2019, http://statements.qld.gov.au/Statement/2019/11/18/more-minerals-freight-to-go-on-the-fast-track-thanks-to-rail-subsidy.
[554] Glencore, sub. 5, pp. 16–17. See also Glencore, sub. 17, p. 19.
[555] Glencore, sub. 5, pp. 17–18; Glencore, sub. 17, p. 19.
[556] Glencore, sub. 5, p. 17.
[557] Queensland Rail, *West Moreton System Information Pack*, October 2016, pp. 12–16, https://www.queenslandrail.com.au/business/acccess/Documents/West%20Moreton%20System%20Information%20Pack%20-%20Issue%203.1%20-%20October%202016.pdf.
[558] Queensland Rail, sub. 33, p. 66, para. 329.
[559] South West Producers, sub. 4, p. 7.

nearby coal power stations[560], thus the system currently serves five operating mines.[561] The West Moreton system has the capacity to deliver up to 10.8 million tonnes per annum (mtpa) of coal to the Port of Brisbane.[562] Additionally, various agricultural products from the Western and South Western systems travel via the West Moreton system (and Metropolitan system) to the Port of Brisbane.

Queensland Rail said that 7.17 million tonnes of coal was transported on the West Moreton system in 2017–18. Thermal coal accounts for 94 per cent of annual train paths and 98 per cent of tonnages transported on the system.[563] Queensland Rail highlighted the uncertainty surrounding coal volumes, including the 2013 closure of Peabody's Macalister mine and the future of the New Acland Stage 3 development. If this development proceeds, Queensland Rail expects coal volumes will increase to 9 mtpa but if not, volumes will reduce to 2 mtpa.[564]

The West Moreton system transported approximately 2,494 million gtk of freight and passengers in 2017–18.[565] A breakdown of volumes carried by commodity on the West Moreton system is provided in Figure 22.

Figure 22 West Moreton system freight volumes by commodity in 2017–18 (million gtk)



Source: Adapted from Queensland Rail, 2017–18 Annual Performance Report, Queensland Rail Access Undertaking 1, December 2018, p. 7.

Queensland Rail submitted that coal volumes hauled on the West Moreton system accounted for 3.2 per cent of Queensland coal exports and 0.21 per cent of gross state product (GSP) in

[560] BITRE, *Freightline 4—Australian coal freight transport*, Department of Infrastructure and Regional Development, Australian Government, 2016, p. 14, https://bitre.gov.au/publications/2016/files/Freightline_04.pdf.
[561] South West Producers, sub. 4, p. 45.
[562] BITRE, *Freightline 4—Australian coal freight transport,* Department of Infrastructure and Regional Development, Australian Government, 2016, p. 14.
[563] Queensland Rail, sub. 33, p. 66, para. 332.
[564] Queensland Rail, sub. 33, p. 66, paras 333–34.
[565] Queensland Rail, *2017–18 Annual Performance Report, Queensland Rail Access Undertaking 1*, December 2018, p. 7.

2017–18.[566] It also compared the approximately 7 mtpa of coal transported on the West Moreton system with the 220 mtpa hauled on the CQCN.[567] It refuted the QCA's comparison of volumes hauled on the West Moreton and Mount Isa Lines, arguing that the Mount Isa Line transports approximately 72 per cent of the state's mineral and metal exports.[568]

The South West Producers submitted that the West Moreton system and the relevant parts of the Metropolitan systems are significant, having regard to their importance to the Queensland economy:

> QR's rail network generally, and/or those parts of it which provide the West Moreton corridor coal rail access service are significant, having regard to:
>
> … its importance to the Queensland economy, in the case of the West Moreton corridor through servicing coal, grain, livestock and passenger traffic and the economic contribution made by the coal mines, rail haulage, coal handling services, and resulting royalties and indirect economic benefits of the coal supply chain which the West Moreton system rail transport infrastructure forms part of.[569]

The South West Producers also said that the West Moreton rail corridor is significant, as it has been 'specifically recognised by the National Transport and Infrastructure Council as a national key freight route', and due to its economic contributions to the state.[570]

The Department of Infrastructure, Transport, Cities and Regional Development explains that identifying national key freight routes:

> assist governments and industry to better understand, and plan for, critical freight flows, and will be maintained to inform a range of national transport infrastructure policy, regulatory, planning and operational issues. It provides a detailed picture of the road and rail routes connecting Australia's nationally significant places for freight.[571]

In 2017–18, Queensland Rail received approximately $42.8 million in coal access charges, and $2.5 million in non-coal access charges, from providing its below-rail service on the West Moreton system.[572] In this period, the West Moreton system received approximately $0.74 million in government subsidies.[573] This suggests that, unlike most of Queensland Rail's network (with the exception of the Mount Isa Line), usage of the West Moreton system has been predominantly funded by its users on a commercial basis, and the West Moreton service has not relied heavily on government subsidies to operate.

The South West Producers provided data on the indirect contributions to the economy facilitated by access to the West Moreton rail corridor, saying that together, the 'economic

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[566] Queensland Rail, sub. 33, p. 67, paras 335, 337.
[567] Queensland Rail, sub. 33, p. 67, para. 339.
[568] Queensland Rail, sub. 33, p. 67, para. 341.
[569] South West Producers, sub. 4, pp. 5–6.
[570] South West Producers, sub. 4, pp. 46–47. See also Department of Infrastructure, Transport, Cities and Regional Development, Freight Network, Australian Government web page, http://maps.infrastructure.gov.au/KeyFreightRoute/index.html.
[571] Department of Infrastructure, Transport, Cities and Regional Development, Freight Network, Australian Government web page, https://www.infrastructure.gov.au/transport/freight/network.aspx.
[572] Queensland Rail, *Financial Statements for the Year Ended 30 June 2018: Below Rail Services Provided by Queensland Rail*, 2018, p. 4.
[573] Based on publicly available data, it was not possible to determine the amount of subsidies received by the Metropolitan system alone as this number is not separately reported for the Metropolitan system, and is instead grouped in the reported number for the 'rest of the network'. See Queensland Rail, *Financial Statements for the Year Ended 30 June 2018: Below Rail Services Provided by Queensland Rail*, 2018, p. 4.

contributions made by the coal, freight and passenger services that travel the West Moreton coal rail access service are significant'.[574] They said:

> Coal from the West Moreton network constituted 22 per cent of the Port of Brisbane's throughput
>
> …
>
> In addition, QR, Aurizon and QBH employ a material number of people in connection with below rail and above rail operations on the West Moreton corridor, and the coal handling services at the Port of Brisbane, which form part of the West Moreton coal supply chain. [575]

Further, the South West Producers provided data from the Queensland Resources Council (QRC) that shows that in 2016–17, the resources industry in the West Moreton region contributed approximately $30 million in wages paid to 263 full time employees, $7 million spent on regional communities, and $3.8 billion in royalties paid to the state.[576]

The South West Producers also highlighted statements made by the Minister for Transport and Main Roads when announcing $28 million of upgrades to the West Moreton system in February 2018 and mentioning the support it provides to the local tourism economy, agriculture and resource sectors:

> The West Moreton system is a critical link for rail services from Brisbane to the west and south west communities of the state and is a major artery to the Darling Downs, which is predominantly used to transport thermal coal and grains.[577]

The South West Producers said that coal mining activities in the South West generate approximately $700 million in annual revenue.[578] They did not agree with Queensland Rail's comparison of the significance of the system to the CQCN, submitting that the threshold is whether the facility itself is significant, not in comparison to other facilities.[579]

12.5.4 Metropolitan system

The Metropolitan system radiates from Roma Street station in Brisbane's CBD, and extends north to Nambour, where it joins the North Coast Line; east via various branch lines, including the dedicated dual gauge freight and coal lines from Lytton Junction to reach the Port of Brisbane at the Fisherman Islands; south through the Gold Coast area to the Varsity Lakes station (where it terminates); west via Ipswich to Rosewood, where it connects with the West Moreton system; and south-west to the Acacia Ridge Terminal, where it connects with the interstate network to New South Wales. The entire system consists of approximately 612 km of track, with mostly duplicated, electrified lines in the metropolitan region.[580]

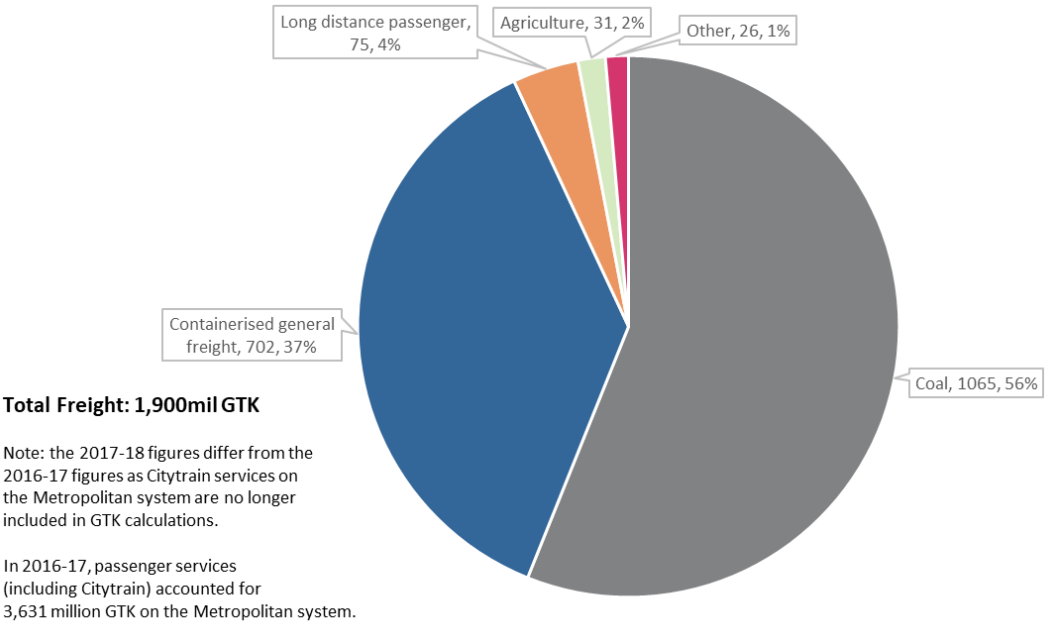
The Metropolitan system predominantly carries passenger services for metropolitan Brisbane, as well as freight services for agriculture, coal and intermodal customers. In order to reach the Port of Brisbane, freight from the West Moreton system (and the Western and South Western systems, which connect to the West Moreton system), as well as the North Coast Line must travel through the Metropolitan system. Additionally, all interstate rail services (travelling

[574] South West Producers, sub. 4, p. 47.
[575] South West Producers, sub. 4, p. 47.
[576] South West Producers, sub. 4, p. 49.
[577] Minister for Transport and Main Roads, cited in South West Producers, sub. 31, p. 18.
[578] South West Producers, sub. 40, p. 44.
[579] South West Producers, sub. 40, p. 44.
[580] Queensland Rail, *Brisbane Metropolitan System Information Pack*, October 2016, https://www.queenslandrail.com.au/business/acccess/Documents/Brisbane%20Metropolitan%20System%20Information%20Pack%20-%20Issue%203%20-%20October%202016.pdf.

to/from any of Queensland Rail's rail systems) must travel on the Metropolitan system in order to connect to the interstate network at Acacia Ridge (south-west of Brisbane).

In 2017–18, the Metropolitan system transported approximately 1,900 million gtk of coal, agricultural and intermodal traffic (excluding Citytrain).[581] In 2017–18, Queensland Rail received approximately $19.3 million in access charges from coal trains accessing the below-rail service on the Metropolitan system.[582] A breakdown of volumes carried by commodity on the Metropolitan system, excluding Citytrain services, is provided in Figure 23.

Figure 23 Metropolitan system freight volumes by commodity in 2017–18 (million gtk)



Source: Adapted from Queensland Rail, 2017–18 Annual Performance Report, Queensland Rail Access Undertaking 1, December 2018, p. 12.

In 2017–18, 53.66 million passenger trips were taken on the Metropolitan system (the Citytrain network)[583], with regional passenger services[584] also departing from Brisbane and travelling along the Metropolitan system.

12.5.5 South Western system

Queensland Rail submitted that the South Western system is approximately 617.5 km in length.[585] The South Western system's primary corridor extends from Toowoomba to Thallon via Warwick, with branch lines from Warwick to Wallangarra and Wyreema to Millmerran. The South Western system connects to the West Moreton system at Toowoomba.[586]

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[581] Queensland Rail, *2017–18 Annual Performance Report, Queensland Rail Access Undertaking 1*, December 2017, p. 12.
[582] Queensland Rail, *Financial Statements for the Year Ended 30 June 2018: Below Rail Services Provided by Queensland Rail*, 2018, p. 4.
[583] Queensland Rail, *Annual and Financial Report 2017–18*, 2018, p. 19.
[584] Including the Spirit of Queensland (Brisbane to Cairns), the Spirit of the Outback (Brisbane to Longreach), the tilt train (Brisbane to Rockhampton) and the Westlander (Brisbane to Charleville).
[585] Queensland Rail, sub. 33, p. 70, para. 360.
[586] Queensland Rail, *South Western System Information Pack*, October 2016, p. 5, https://www.queenslandrail.com.au/business/acccess/Documents/South%20Western%20System%20Information%20Pack%20-%20Issue%203%20-%20October%202016.pdf.

The theoretical capacity limitation for the South Western system is the available capacity across the Toowoomba Range. Out of the approximately 112 return train paths across the Toowoomba Range per week, 14 paths are preserved for primary industry, with a further 19 uncontracted paths available for access by primary producers. However, Queensland Rail data indicates that actual utilisation across the Toowoomba Range has never reached this theoretical capacity (in terms of return train paths) in the last 10 years.[587]

Traditionally, grains, cotton lint and cotton seed have been the primary products hauled on this line, with the volumes of agricultural products varying seasonally. Queensland Rail submitted that in 2016–17, 329,000 tonnes of grain was transported on the South Western system (which is the maximum throughput on the Toowoomba to Warwick section of the system). According to Queensland Rail, this volume comprised 12 per cent of Queensland's grain exports.[588]

Queensland Rail also stated:

> There has been significant change in the transport market from the South West, with all cotton movements switching from rail to road from 2014-15. As a result of increases to heavy vehicle mass limits, over 85% of grain is moved in containers by trucks from the South West to the Port of Brisbane.[589]

Queensland Rail stated that it has 90 per cent excess capacity on the South Western system, adding that:

- train path utilisation on the Warwick to Goondiwindi section was 8 per cent in 2016–17
- there were less than four return services per week between Goondiwindi and Toowoomba.[590]

12.5.6 Western system

The Western system consists of the corridor from Miles to Cunnamulla with branch lines—Westgate to Quilpie, Dalby to Glenmorgan, Miles to Wandoan and Tycanba to Jandowae. The Western system adjoins the western section of the West Moreton system at Miles, with Western system branch lines running directly off the West Moreton system.[591] Queensland Rail submitted that the Western system is over 1,082 km in length, although currently 312.8 km of this is non-operational.[592]

The Western system mainly carries agricultural products, including grain and livestock (cattle), general freight (e.g. pipes), and The Westlander passenger service between Brisbane and Charleville. Freight traffic from the Western System travels via the West Moreton and Metropolitan systems. Grain and cotton are exported, and other freight is imported, via the

[587] Doyle, G, *South Western Rail System*, Queensland Rail, presentation to Rail Forum—Explore best utilisation of existing rail infrastructure on the South West line, Goondiwindi, 4 December 2015.
[588] Queensland Rail, sub. 33, p. 71, para. 365.
[589] Queensland Rail, sub. 33, p. 71, para. 363.
[590] Queensland Rail, sub. 33, p. 71, para. 367.
[591] Queensland Rail, *Western System Information Pack*, October 2016, p. 5, https://www.queenslandrail.com.au/business/acccess/Documents/Western%20System%20Information%20Pack%20-%20Issue%203%20-%20October%202016.pdf.
[592] Queensland Rail, sub. 33, p. 69, para. 352.

Port of Brisbane, with livestock transported to processors in Dinmore and Holmview (in the Brisbane region).[593]

Queensland Rail submitted that in 2016–17, 44,000 tonnes of grain was transported on the Western system (Miles to Roma, which joins the West Moreton system) and 7,000 tonnes of livestock (Miles to Roma). The Westlander passenger service operated four one-way services a week. It stated that the most heavily utilised section, being Miles to Roma, operated at 3 per cent of available capacity, with 42 return freight services operated during the year. The Roma to Charleville section recorded a total of 18 return services.[594] Queensland Rail attributed this underutilisation to competition from road transport and comparatively small freight demand from this origin.

12.5.7 Central Western system

Queensland Rail submitted that the Central Western system is approximately 704 km in length.[595] The Central Western system runs from Emerald west to Winton via Longreach, and includes the Emerald to Clermont and Blair Athol branch line. It connects to Aurizon Network's Blackwater system at Emerald/Nogoa.[596] Freight traffic on the Central Western system typically travels via the Blackwater system from/to the North Coast Line, and from/to various ports including Rockhampton, Gladstone and Brisbane.[597]

The Central Western system mainly carries rural commodities (including grain and livestock), containerised freight, and the Spirit of the Outback passenger service between Brisbane and Longreach.[598]

Queensland Rail provided the following maximum throughput information for the Central Western system for 2016–17:

- Freight (Nogoa to Emerald): 15,000 tonnes
- Grain (Nogoa to Emerald): 110,000 tonnes (volumes transported constitute approximately 4 per cent of Queensland grain exports)
- Livestock (Nogoa to Emerald): 38,000 tonnes (volumes transported constitute approximately 3 per cent of Queensland livestock exports)
- Spirit of the Outback passenger service: four one-way services per week.[599]

It stated that 93 per cent of available train paths on the Emerald to Longreach section are unused, with 97 per cent unused on the Nogoa to Emerald section. If passenger services are excluded, there were fewer than five return services per week on the Nogoa to Emerald section.[600]

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[593] Queensland Rail, *Western System Information Pack*, October 2016, p. 5, https://www.queenslandrail.com.au/business/acccess/Documents/Western%20System%20Information%20Pack%20-%20Issue%203%20-%20October%202016.pdf.
[594] Queensland Rail, sub. 33, p. 70, para. 356.
[595] Queensland Rail, sub. 33, p. 72, para. 371.
[596] Queensland Rail, Central West system, accessed 15 November 2019, https://www.queenslandrail.com.au/forbusiness/the-regional-network/central-western-system.
[597] See for example, Linfox, sub. 50, para. 1.3.
[598] Queensland Rail, Central West system, accessed 15 November 2019, https://www.queenslandrail.com.au/forbusiness/the-regional-network/central-western-system.
[599] Queensland Rail, sub. 33, attachment A, p. 13.
[600] Queensland Rail, sub. 33, p. 73, para. 376.

12.5.8 Tablelands system

Queensland Rail indicated the Tablelands system is 575 km in length, comprising two separate rail corridors (which do not adjoin each other):

- Cairns to Forsayth—423 km
- Normanton to Croydon—151.8 km.[601]

Historically, the Tablelands system has carried sugar and molasses for the many sugarcane farms around the Atherton Tablelands region. However, no freight traffic currently operates on the Tablelands system, and the system is used to carry three tourism (passenger) services: the Gulflander service from Normanton to Croydon and the Kuranda Scenic Railway service from Cairns to Kuranda (both are operated by Queensland Rail), as well as the Savannahlander service from Cairns to Forsayth (operated by a private company).[602]

In 2017–18, more than 411,000 passengers travelled on the Kuranda Scenic Railway service, accounting for approximately 60 per cent of all passengers travelling on the Queensland Rail regional tourism network that year.[603]

12.5.9 General information regarding the Metropolitan, South Western, Western, Central Western and Tablelands systems

Separate information is not available on the revenue and funding sources of the Metropolitan, South Western, Western, Central Western and Tablelands systems. This is because Queensland Rail groups these systems together as 'rest of network' for financial reporting purposes, and there is no publicly available disaggregated financial data reported for each of the systems.

Based on Queensland Rail's financial statements, the South Western, Western, Central Western, Tablelands and Metropolitan systems together received $131.2 million in non-coal access charges in 2017–18.[604] However, some proportion of these access charges may be attributable to 'internal charges' from within Queensland Rail—'internal charges treated as revenue are access charges, telecommunications charges and ancillary infrastructure charges'. Queensland Rail's financial statements show that in 2017–18, $138.6 million of internal access charges were expensed.[605] It is not clear what amount of internal charges is attributable to each of Queensland Rail's systems; however, Queensland Rail submitted that in 2017–18, only $1.1 million was received as external access revenue from the South Western, Western and Central Western systems.[606]

In 2017–18, approximately $413.6 million was received in Transport Service Contract (TSC) payments for the operation of the South Western, Western, Central Western, Tablelands and Metropolitan systems.[607] That is, excluding revenue from coal access charges on the Metropolitan system, approximately 75 per cent of the revenue received on the South Western,

[601] Queensland Rail, sub. 33, p. 73, para. 380.
[602] Queensland Rail, sub. 33, p. 73, para. 384; sub. 33, attachment A, p. 14.
[603] Queensland Rail, *Annual and Financial Report 2017–18*, p. 42.
[604] Queensland Rail, *Financial Statements for the Year Ended 30 June 2018: Below Rail Services Provided by Queensland Rail*, 2018, p. 4.
[605] For example, internal charges may be access charges paid by Queensland Rail's above-rail passenger services to its below-rail service for access: Queensland Rail, *Financial Statements for the Year Ended 30 June 2017*: *Below Rail Services Provided by Queensland Rail*, 2017, pp. 9, 15.
[606] Queensland Rail, sub. 33, p. 69, para. 350.
[607] Queensland Rail, *Financial Statements for the Year Ended 30 June 2018*: *Below Rail Services Provided by Queensland Rail*, 2018, p. 4.

Western, Central Western, Tablelands and Metropolitan systems was from government subsidies.

Consistent with this information, Queensland Rail submitted that these systems 'are heavily underutilised and are substantially subsidised by TSC payments for regional development and other public policy purposes'.[608]

GrainCorp submitted that it relies heavily on access to the South Western, Western and Central Western systems for transport of grain to export facilities. It said that while export volumes vary annually, on average around 2 mtpa are exported out of Queensland, with approximately 40 per cent of this transported by rail to export facilities. GrainCorp submitted that the sale of exported wheat and other grains generates revenue of around $600 million per annum for the Queensland economy.[609]

Watco submitted that the South Western, Western and Central Western systems satisfy criterion (c), having regard to their size as well as their importance to the Queensland economy. While it recognised that these systems do not transport large volumes of bulk freight, 'these rail systems do provide key transport links accessing regional Queensland agricultural markets and communities'.[610]

12.6 Criterion (c)—the facility for the service as a whole

The QCA considers that the Queensland Rail network as a whole—that is, the facility for the service described in s. 250(1)(b) of the QCA Act, which includes seven regional systems and the Metropolitan system—is significant, having regard to its size or its importance to the Queensland economy.

12.6.1 Size

Stakeholders provided slightly different estimates of the physical dimensions (total rail track distance) of the Queensland Rail network. For example, Queensland Rail stated that its rail network 'extends more than 6,600 km across Queensland'; Glencore stated that 'the whole of the QR network is clearly significant when regard is had to the 7,000 km of rail track and associated infrastructure that it includes, as well as the significant area of the state of Queensland that the network covers'; and New Hope and Yancoal said that 'the QR Network as a whole is clearly significant, consisting of approximately 8,000km of track which covers a significant proportion of the State'.[611] Estimates of the total length of rail track may differ, based on factors such as whether yards, sidings, passing loops and duplicate tracks are included.

Moreover, the eight systems are interconnected (with the exception of the standalone Normanton to Croydon track on the Tablelands system), forming a network that extends across a significant area of the state.[612]

Queensland Rail data show that approximately 15.4 billion gtk of long distance passengers and freight (including intermodal, coal, minerals, industrial products and agricultural products) were

[608] Queensland Rail, sub. 33, p. 69, para. 349.
[609] GrainCorp, sub. 52, p. 11.
[610] Watco, sub. 48, p. 5.
[611] Queensland Rail, sub. 8, p. 2, para. 6; Glencore, sub. 5, p. 16; South West Producers, sub. 4, p. 44.
[612] The Central Western system is interconnected with the North Coast Line through the Aurizon Network's Central Queensland Coal Network (CQCN), and freight and passenger traffic have historically been permitted access across the CQCN, for example the Spirit of the Outback passenger service from Brisbane to Longreach. See Aurizon Network, sub. 6, pp. 45–47.

carried on the Mount Isa Line, North Coast Line, West Moreton and Metropolitan systems in 2017–18.[613] The QCA understands that together, these systems account for approximately 97 per cent of all freight tonnage transported on Queensland Rail's network.[614]

In terms of passengers carried, Queensland Rail estimated that 53.66 million passenger trips were taken in 2017–18 on the Citytrain network (on the Metropolitan system), and more than 750,000 passengers travelled on the Queensland Rail regional systems as part of the Queensland Rail travel and tourism network.[615]

The QCA considers that Queensland Rail's network is of a substantial physical size (at least 6,600 km of rail track based on estimates provided), covering a large geographic area across the state. Further, substantial volumes of freight and numbers of passengers are transported on the network. The QCA therefore considers that the Queensland Rail network as a whole is significant having regard to its size.

12.6.2 Importance to the Queensland economy

The QCA considers that the Queensland Rail network as a whole is a vital component of the Queensland economy, as it facilitates the operation of various industries which depend upon access to the railway network, including:

- the freight haulage industry that transports goods by rail across Queensland
- the mining industries that depend upon the Mount Isa Line and the West Moreton system for the transportation of minerals and coal products for export
- agricultural and livestock industries across regional Queensland
- tourism across Queensland, particularly in regional communities that are connected to the rail network
- regional communities, which rely upon industries including agriculture, mining and tourism for local employment and economic growth
- the Brisbane Metropolitan system commuter service.

Queensland Rail's financial statements show that total below-rail access revenue received by Queensland Rail across its entire network totalled $316.3 million in 2017–18.[616] Stakeholders provided estimates of the monetary contributions of various individual systems to the Queensland economy.

Queensland Rail emphasised that 'it is critical that the economic significance is not conflated with cultural, historical or societal significance when applying criterion (c)'.[617] The QCA considers that importance to the Queensland economy does not merely refer to monetary contributions to the GSP, but may also include contributions to employment, regional development and economic growth and productivity.

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[613] Queensland Rail does not publicly report data for gtk carried on the South Western, Western, Central Western and Tablelands systems. Queensland Rail, *2017–18 Annual Performance Report, Queensland Rail Access Undertaking 1*, December 2018, pp. 7, 11, 12.

[614] Queensland Rail, sub. 8, p. 2, para. 8.

[615] Queensland Rail, *Annual and Financial Report 2017–18*, pp. 19, 42, https://www.queenslandrail.com.au/about%20us/Documents/Queensland%20Rail%20-%20Annual%20and%20Financial%20-%20Report%20-%202017-18.pdf.

[616] Queensland Rail, *Financial Statements for the Year Ended 30 June 2018, Below Rail Services Provided by Queensland Rail*, p. 4.

[617] Queensland Rail, sub. 8, p. 6, para. 41.

The QCA also notes that the amount of government subsidies that Queensland Rail's facility (or facilities) attracts is a positive factor in determining its significance. Indeed, if the Queensland Government chooses to provide subsidies to ensure that a facility continues to provide a service to the community, it would be consistent with the view that facility is of state significance.

The QCA considers that access to the Queensland Rail network facilitates the development of various industries in Queensland, which contribute significantly to the Queensland economy through GSP as well as regional development and employment. Thus, the QCA is satisfied that the Queensland Rail network as a whole is significant having regard to its importance to the Queensland economy.

12.7 Criterion (c)—the facilities for each part of the service

The QCA considers that each of the facilities that comprise each part of the service identified in the criterion (a) analysis are significant, having regard to their size or importance to the Queensland economy.

12.7.1 North Coast Route

The North Coast Route comprises the North Coast Line and the Metropolitan system (Appendix B). Detailed information on the North Coast Line and the Metropolitan system is provided above in sections 12.5.1 and 12.5.4.

Queensland Rail considered that both the North Coast Line and the Metropolitan system satisfy criterion (c).[618] Linfox stated that all criteria are met in relation to the North Coast Rail System (as it defined it).[619]

Based on the information before it, the QCA considers that the North Coast Route is significant, having regard to its size or its importance to the Queensland economy. The North Coast Route is a substantial rail system, extending across a significant area of the state. Substantial annual volumes of freight are carried on the North Coast Route, as well as a number of regional passenger services. The QCA therefore considers that the North Coast Route is significant, having regard to its size.

The North Coast Route is a crucial freight corridor on Queensland's eastern coastline. Both the North Coast Line and the Metropolitan system are critical pieces of rail infrastructure, not only connecting key coastal Queensland cities (including Brisbane), but also connecting freight traffic from other rail systems to various export ports on Queensland's eastern coastline (including freight from the Mount Isa Line, Central Western, Western, South Western and West Moreton systems). The North Coast Line and Metropolitan system play a critical role in supporting economic activity across a large area of the state. The QCA therefore considers that the North Coast Route is significant, having regard to its importance to the Queensland economy.

12.7.2 Mount Isa Route

The Mount Isa Route comprises the Mount Isa Line and a small part of the North Coast Line between Stuart and the Port of Townsville (Appendix B). Detailed information on the Mount Isa Line is provided above in section 12.5.2.

Queensland Rail considered the Mount Isa Line satisfies criterion (c).[620]

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[618] Queensland Rail, sub. 33, pp. 63, 65, paras 314, 322.
[619] Linfox, sub. 50, para. 2.2.
[620] Queensland Rail, sub. 33, p. 66, para. 328.

Based on the information before it, the QCA considers that the Mount Isa Route is significant, having regard to its size or its importance to the Queensland economy. The Mount Isa Route is of an extensive length and geographic spread (extending from Queensland's eastern coastline to almost its western border). Substantial annual volumes of freight are carried on the Mount Isa Route. The QCA therefore considers that the Mount Isa Route is significant, having regard to its size.

The Mount Isa Route makes significant contributions to the Queensland economy through its operation as a fully commercial line, contributing significant amounts in access charges. It also plays a substantial indirect role in supporting the development of the North West Minerals Province, a highly prospective mining region, which relies upon the line for both importing mining inputs and exporting mining products. The Mount Isa Route enables key regional industries that contribute substantially to the Queensland economy including through employment, local spending and royalties paid to the state.[621] In announcing the Mount Isa Line incentive scheme, the Queensland Government acknowledged 'how important the North West Minerals Province is to the resources sector and how important that sector is for regional employment, exports and economic growth'.[622] The QCA therefore considers that the Mount Isa Route is significant, having regard to its importance to the Queensland economy.

12.7.3 West Moreton Route

The West Moreton Route comprises the West Moreton system and the Metropolitan system (Appendix B). Detailed information on the West Moreton system and the Metropolitan system is provided above in sections 12.5.3 and 12.5.4.

Queensland Rail considered that 'the West Moreton System is not relevantly of state significance due to the low volume hauled compared to Queensland's total coal exports'[623], noting that:

> Queensland Rail considers that while these tonnages [of coal transported on the West Moreton system] are significant to Queensland Rail and the South West Producers operating in the West Moreton coal freight corridor, these coal volumes are dwarfed by the scale of the operations in the CQCN [Aurizon Network's Central Queensland Coal Network].[624]

The QCA considers that criterion (c) does not require it to directly compare the facility for the service in question with other infrastructure in Queensland for the purposes of determining whether the facility is significant. Criterion (c) is satisfied if the facility for the service is significant, having regard to its size or its importance to the Queensland economy.

Based on the information before it, the QCA considers that the West Moreton Route is significant, having regard to its size or importance to the Queensland economy. The West Moreton system is primarily used to transport coal and agricultural products to the Port of Brisbane for export, via the Metropolitan system. The West Moreton system and the Metropolitan systems are of substantial length, and cover a wide geographic scope extending across a large area of southern Queensland and the greater Brisbane region. The QCA considers

[621] Queensland Resources Council, *What are resources worth to the North West region?*, 2018–19 financial year, https://www.qrc.org.au/wp-content/uploads/2019/10/2019_NorthWest_Region.pdf.

[622] A Palaszczuk, J Trad and M Bailey, More minerals freight to go on the fast track thanks to rail subsidy, media release, Queensland Government, 18 November 2019, http://statements.qld.gov.au/Statement/2019/11/18/more-minerals-freight-to-go-on-the-fast-track-thanks-to-rail-subsidy.

[623] Queensland Rail, sub. 33, p. 63, para. 310.

[624] Queensland Rail, sub. 33, p. 67, para. 339.

that the volume of freight carried annually by the West Moreton Route is substantial. For example, the West Moreton system carried approximately 6.6 million net tonnes of freight, including coal and agricultural products, in 2017–18, and approximately 6.4 million net tonnes of freight in 2018–19.[625] The QCA therefore considers that the West Moreton Route is significant, having regard to its size.

Queensland Rail commented on the uncertainty in relation to future tonnages on the West Moreton system.[626] At the time of writing, this uncertainty persists and it is not clear which of the two scenarios presented by Queensland Rail (or indeed a different scenario) may eventuate in the future.[627] Given this uncertainty, the QCA has formed its views in this recommendation based on available data (including volume and revenue data from the 2017–18 and 2018–19 reporting period).

The QCA is satisfied that the West Moreton Route is significant, having regard to its importance to the Queensland economy. This is based on the substantial direct contributions to the economy in the form of access revenue, as well as the substantial indirect contributions to the economy that access to the West Moreton Route provides. In particular, access to this route facilitates the operation of specific industries (such as coal mining, rail haulage and agriculture), that contribute substantially to the Queensland economy, both in terms of direct revenue (GSP) as well as employment and regional development. It is also relevant that it has been identified by government as a national key freight route and hence an enabler of critical freight flows.

12.7.4 The South Western Route, Western Route and Central Western Route

The South Western Route, the Western Route and the Central Western Route are defined in Appendix B. Detailed information on the individual rail systems is provided above in sections 12.5.5 to 12.5.9.

Queensland Rail submitted that the Western, South Western and Central Western systems were not significant in terms of each system's size or importance to the Queensland economy.[628] In contrast, GrainCorp submitted that each of Queensland Rail's systems is significant in its own right, having regard to both size and importance to the Queensland economy. It commented that the South Western, Western and Central Western systems support the transfer of grain and the viability of the state's grain export industry.[629] Watco disagreed with the QCA's draft recommendation that these systems are not significant in terms of their importance to the Queensland economy. While it recognised that they do not transport large volumes, it argued that 'these rail systems do provide key transport links accessing regional Queensland agricultural markets and communities'.[630]

Based on the information before it, the QCA considers that the South Western Route, the Western Route and the Central Western Route are all significant having regard to size. This is because each of these routes comprises an extensive length of railway track and covers a substantial geographic area of the state.

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[625] Queensland Rail, *2017-18 Annual Performance Report, Queensland Rail Access Undertaking 1, December 2018,* pp. 7, 11; Queensland Rail, *2018-19 Annual Performance Report, Queensland Rail Access Undertaking 1*, December 2019, p. 7.

[626] See for example, Queensland Rail's submission in the 2020 draft access undertaking process: Queensland Rail, *DAU2 West Moreton System low volume coal reference tariff*, submission, November 2019, pp. 5, 29.

[627] See Queensland Rail, sub. 33, p. 67, para. 338.

[628] Queensland Rail, sub. 33, pp. 70–73, paras 359, 370, 379.

[629] GrainCorp, sub. 52, p. 11.

[630] Watco, sub. 48, p. 5.

The QCA considers that it is less clear whether each of the routes are significant having regard to their importance to the Queensland economy. Importance to the Queensland economy does not merely refer to monetary contributions to the gross state product, but may also include contributions to employment, contributions to regional development and contributions to economic growth and productivity. For example:

- The Central Western Route provides an option for livestock transport for Central Western Queensland, an option for freight and supplies to be transported into regional communities, and a source of tourism through Queensland Rail's Spirit of the Outback (Brisbane to Longreach) passenger service.[631]
- The Western Route provides an option for livestock and grain transport for the south-western Queensland regions, an option for freight and supplies to be transported into regional communities, and a source of tourism through Queensland Rail's The Westlander (Brisbane to Charleville) passenger service.
- The South Western Route provides an option for the transport of agricultural products such as grain from the productive agricultural regions of the Darling Downs.

Whether the Central Western Route, the Western Route and the South Western Route are each significant, having regard to each one's importance to the Queensland economy, is a matter of judgement. Based on the information before it, the QCA considers that it is less clear that each one of these facilities is significant, if regard is had only to each facility's importance to the Queensland economy. However, the QCA notes that the fact that these facilities attract government subsidies suggests that they are of economic importance in terms of the flow-on benefits they provide to regional communities. Indeed, the Queensland Government has, in the past, stated that the government transport service contracts were designed to 'facilitate regional development and employment'.[632]

On balance, the QCA considers that the South Western Route, Western Route and Central Western Route are each significant having regard to their size, though the importance of each individual facility to the Queensland economy is less clear.

On this basis, the QCA considers that each route satisfies criterion (c). Section 76(2)(c) does not require that a facility be significant having regard to both size and economic importance. In each case the 'size' of the facility, in the sense used in the QCA Act, is sufficient to satisfy this criterion.

12.7.5 Tablelands system

Queensland Rail considered that the Tablelands system 'is neither of sufficient size nor importance to the Queensland economy (measured by contribution to exports and GSP) to satisfy criterion (c)'.[633] Detailed information on the Tablelands system is provided above in section 12.5.8.

Based on the information before it, the QCA considers that the Tablelands system is significant in terms of size, though it is less clear whether it is significant in terms of importance to the Queensland economy.

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[631] Queensland Rail, *Annual and Financial Report 2016–17*, p. 29.
[632] Queensland Government, Department of Transport and Main Roads, *Moving Freight – A strategy for more efficient freight movement*, December 2013, p. 36.
[633] Queensland Rail, sub. 33, p. 74, para. 386.

The Tablelands system consists of an extensive length of railway track, which covers a substantial geographic area of Queensland's northern region, and substantial passenger numbers are carried on the Tablelands system annually. Thus, the QCA considers that the Tablelands system is significant, having regard to its size.

It is less clear whether the Tablelands system is significant, having regard only to its importance to the Queensland economy. The Tablelands system is an important facilitator for regional tourism in North Queensland. For example, the Normanton to Croydon railway line commemorated 125 years of service in 2016, and the Kuranda Scenic Railway service from Cairns to Kuranda is a significant tourism attraction in its own right for visitors to the Cairns region.[634] Queensland Rail stated that this service alone directly contributes approximately $3 million in tourist services revenue per year.[635] Very little data is publicly available on the benefits that the Tablelands system impart to the tourism industry, although the QCA notes that the provision of government subsidies may suggest the facility provides flow-on benefits to the regional community. Based on the information before it, the QCA is inclined to conclude that the Tablelands system is not significant, if regard is had only to its importance to the Queensland economy.

The QCA considers that the Tablelands system is significant having regard to its size, though the system's importance to the Queensland economy as a whole is less clear.

On this basis, the QCA considers that the system satisfies criterion (c). Section 76(2)(c) does not require that a facility be significant having regard to both size and economic importance. In this case the 'size' of the facility, in the sense used in the QCA Act, is sufficient to satisfy this criterion.

[634] Queensland Rail, *Annual and Financial Report 2016–17*, p. 29.
[635] Queensland Rail, sub. 33, p. 73, para. 384.

13 CRITERION (D)—PROMOTE THE PUBLIC INTEREST

13.1 Introduction

Section 76(2)(d) of the QCA Act is expressed as follows:

> that access (or increased access) to the service, on reasonable terms and conditions, as a result of a declaration of the service would promote the public interest

Section 76(5) of the QCA Act further states:

> In considering the access criterion mentioned in subsection (2)(d), the authority and the Minister must have regard to the following matters –
>
> (a) if the facility for the service extends outside Queensland[636] –
>
> (i) whether access to the service provided outside Queensland by means of the facility is regulated by another jurisdiction; and
>
> (ii) the desirability of consistency in regulating access to the service;
>
> (b) the effect that declaring the service would have on investment in –
>
> (i) facilities; and
>
> (ii) markets that depend on access to the service;
>
> (c) the administrative and compliance costs that would be incurred by the provider of the service if the service were declared;
>
> (d) any other matter the authority or Minister considers relevant.

A summary of the key matters raised by stakeholders with respect to criterion (d), as well as the QCA's final recommendations, are set out in Table 11.

Table 11 Summary of key positions—s. 76(2)(d) of the QCA Act

Criterion (d)			
Issue	***Queensland Rail***	***Other stakeholders***	***QCA final recommendation***
Queensland Rail's service as a whole (i.e. as defined in s. 250(1)(b) of the QCA Act)	None of the rail systems satisfies criterion (d)	Pacific National, Glencore, and the South West Producers (New Hope and Yancoal) each submitted that the Queensland Rail network as a whole satisfied criterion (d) Pacific National submitted that all the access criteria are satisfied for all Queensland Rail systems, including the South Western, Western, Central Western and Tablelands systems GrainCorp submitted declaration should be maintained across the entire Queensland Rail network	Not satisfied
North Coast Route service	Criterion (d) is not satisfied	Linfox—criterion (d) is satisfied for the 'North Coast Rail System'	Criterion (d) is satisfied

[636] As the Queensland Rail facility does not extend outside Queensland, the QCA has not considered s. 76(5)(a) any further.

Criterion (d)			
Mount Isa Route service	Criterion (d) is not satisfied	Glencore—the 'Mount Isa Rail Access Service' (which it defines as the rail access service for the Mount Isa Line including the rail links to the Port of Townsville via the Jetty branch line) satisfied criterion (d)	Criterion (d) is satisfied
West Moreton Route service	Criterion (d) is not satisfied	The South West Producers (New Hope and Yancoal)—the 'West Moreton corridor coal rail access service' (as they defined it) satisfied criterion (d)	Criterion (d) is satisfied
Central Western Route service Western Route service South Western Route service	Criterion (d) is not satisfied	Watco and GrainCorp—the South Western, Western and Central Western systems satisfied criterion (d) Linfox—criterion (d) is satisfied for the 'Central West Rail System'	Criterion (d) is satisfied
Tablelands system service	Criterion (d) is not satisfied	No stakeholders made submissions specifically in relation to the Tablelands system, although some stakeholders (summarised above) considered that the access criteria are satisfied for all Queensland Rail systems, including the Tablelands system	Criterion (d) is **not** satisfied

13.2 The QCA's approach to assessing criterion (d)

13.2.1 Stakeholder submissions

Queensland Rail agreed with the QCA's approach in the draft recommendation that there were compelling reasons to assess criterion (d) on a system-by-system basis, given the different characteristics, investment effects and dependent markets.[637] The South West Producers also agreed with this.[638] Pacific National, on the other hand, considered that the interconnected nature of the Queensland Rail network means that benefits from the North Coast Line, Mt Isa Line, West Moreton system and Metropolitan system services flow to other services.[639]

13.2.2 QCA approach

Criterion (d) requires satisfaction of a positive test—that access (or increased access) to the service, on reasonable terms and conditions, as a result of a declaration would promote the public interest. This chapter addresses each of the matters the QCA is required to have regard to under section 76(5) of the QCA Act, as well as other matters the QCA considers relevant[640] to the assessment of criterion (d). The QCA will consider whether criterion (d) is satisfied for the service as a whole[641], as well as for each part of the service identified by the QCA (see Appendix B).

In the draft recommendation, the QCA considered the South Western, Western, Central Western and Tablelands systems together as the 'other systems' services, and noted the lack of

[637] Queensland Rail, sub. 33, p. 75, para. 389.
[638] South West Producers, sub. 31, p. 19.
[639] Pacific National, sub. 28, p. 2.
[640] Section 76(5)(d) of the QCA Act.
[641] The service as a whole is described in s. 250(1)(b) of the QCA Act.

stakeholder submissions addressing public interest factors in relation to these services. In response to the QCA's draft recommendation, several stakeholders provided new information in relation to the South Western, Western, Central Western and Tablelands systems. For example:

- Queensland Rail confirmed that the Tablelands system now exclusively provides tourist train services.[642]
- Watco, Linfox and GrainCorp confirmed that the South Western, Western and Central Western systems primarily service freight from the agricultural sector.[643]

In addition, in its submission in response to the QCA's draft recommendation, Queensland Rail has substantially increased both the volume and detail of its arguments. In considering this substantial volume of new information, the QCA has reviewed its analysis of criterion (d) in relation to the services provided on the South Western, Western, Central Western and Tablelands systems.

13.3 The structure of criterion (d) analysis

The analysis of criterion (d) is set out under the following headings:

- Investment in facilities
- Investment in dependent markets
- Administrative and compliance costs
- Other relevant matters.[644]

These headings reflect the matters expressed in s. 76(5) of the QCA Act. The QCA will first discuss general principles applicable to each matter, and will then apply these principles to the service as a whole, and each particular part of the service identified by the QCA (see Appendix B).

13.4 Investment in facilities

In considering criterion (d), the QCA is required to have regard to:

> the effect that declaring the service would have on investment in facilities[645]

Investment in facilities includes, but is not limited to, investment in the facility for the service (i.e. the rail transport infrastructure).[646] Importantly, this investment can be made by users of the service, and does not necessarily need to be made by Queensland Rail.[647] This section focuses on investment in below-rail facilities. The QCA discusses investment in other facilities, for example in mines or above-rail assets, as part of investment in markets that depend on access to the service, in section 13.5 below.

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[642] Queensland Rail, sub. 33, p. 73, para. 384.
[643] Watco, sub. 48, p. 6; Linfox, sub. 50, paras 3.8–3.12; GrainCorp, sub. 52, pp. 12–14.
[644] These headings reflect the matters expressed in s. 76(5) of the QCA Act.
[645] Section 76(5)(b)(i) of the QCA Act.
[646] Within the meaning of s. 250 and schedule 2 of the QCA Act.
[647] For example, Queensland Rail's Mount Isa Line Rail Infrastructure Master Plan envisages that capacity improvements on the Mount Isa Line may be paid for or recovered from users through increased access charges—Queensland Rail, *Mount Isa Line Rail Infrastructure Master Plan*, 2012, p. 10, https://www.queenslandrail.com.au/business/acccess/Documents/Maps/QR4159.1%20Infrastructure%20Master%20Plan%202012_Updated_LR.pdf.

For the reasons discussed below, the QCA considers that declaration would likely have a positive, albeit small, effect on investment in facilities used in relation to the service as a whole, and the services on the North Coast Route, Mount Isa Route, West Moreton Route and the agricultural systems. The QCA considers that declaration is unlikely to have an effect on investment in facilities used in relation to the service on the Tablelands system.

13.4.1 Stakeholder submissions

Stakeholder submissions on the impact of declaration on investment in the facilities for the services (i.e. the rail transport infrastructure) were limited. Stakeholders who commented on the impact on investment in other facilities (such as above-rail facilities) considered this in the context of investment in dependent markets. The impact on investment on other facilities (such as above-rail facilities) is discussed in section 13.5.

Queensland Rail argued that declaration does not promote investment in its own facilities (i.e. the below-rail infrastructure), although it did not specifically address these impacts.[648] Queensland Rail emphasised how it is incentivised to increase the utilisation of its systems in the absence of declaration, focusing on the impact on investment in dependent markets (including above-rail facilities).

The South West Producers submitted that 'declaration of the West Moreton coal rail access service facilitates ongoing investment in coal mining in the West Moreton region', including by promoting and facilitating investments in the below-rail facilities, as well as in coal mines in the West Moreton region.[649] They further commented that investments made by Queensland Rail (and the state) in network upgrades (such as bridge replacements and re-sleepering) on the West Moreton system are seen as evidence that declaration is facilitating continued network investment.[650]

13.4.2 QCA analysis—general principles

Investment in below-rail facilities[651] may be made by Queensland Rail itself or may come from other investors such as users of the railway line or third party investors. It may also be undertaken by Queensland Rail in partnership with a third party.

Apart from ongoing investment required to maintain the network in a condition that will allow for the continued delivery of below-rail services (i.e. replacement expenditure), two factors that could trigger the need for investment in below-rail facilities are:

- an increase in demand for below-rail services where there is insufficient capacity in the system
- unforeseen circumstances (for example, the occurrence of natural disasters, the discovery of new minerals deposits, the announcement of new government policies or infrastructure projects), that necessitate investment in the below-rail facilities.

In either case, the key issue impacting investment incentives is the extent to which Queensland Rail (and/or third party investors) is confident that it will be able to recover the costs of that investment, including a return on and of capital. Under the existing regulatory regime in the

[648] Queensland Rail, sub. 33, pp. 80–82, paras 407–14.
[649] South West Producers, sub. 4, p. 50.
[650] South West Producers, sub. 31, p. 20.
[651] In this section, the QCA uses the words 'below-rail facilities' to refer to the facilities for the service; that is, the rail transport infrastructure as defined in s. 250 and schedule 2 of the QCA Act.

QCA Act, Queensland Rail can seek to recover the costs of any investments it makes via access charges from users. However, the QCA must approve these investments as prudent and efficient before the costs can be recovered via access charges. In this context, the QCA notes the comments made by the South West Producers (in the context of the West Moreton Route) regarding the protections that the current regulatory regime provides to Queensland Rail to recover costs from users in the event of a fall in volumes.[652]

Almost all of Queensland Rail's rail systems (except the Mount Isa Line) rely heavily on Queensland Government subsidies under the Transport Services Contracts (TSCs) to operate (for more information, see section 12.5). Additionally, all of Queensland Rail's rail systems have substantial excess capacity. The QCA considers that under these circumstances, significant new investment is unlikely to be required to expand the network in the near future, although replacement expenditure will still be required to maintain the current level of service. On these subsidised systems, the QCA recognises that the business case for investment in below-rail facilities will depend on the extent to which the costs of that investment will be able to be recovered from a combination of access charges and government funding (and that in some cases there is a much heavier reliance on the latter).

However, not all investments in facilities are necessarily in response to a need to increase capacity on the existing system(s) (and hence tied to the amount of excess capacity in the system). Unforeseen circumstances may arise during the future period for declaration that may require investment in facilities (including investment in rail transport infrastructure)—for example, natural disasters, the discovery of new mining deposits, an unexpected increase in demand for a particular mineral, or the announcement of new government policies or infrastructure projects. Given this, investments may be made into improving the reliability of the rail system or its resilience to natural disasters.

In comparing a future with and a future without declaration, the QCA considers that Queensland Rail's incentives to invest in its below-rail network (whether in new infrastructure or in maintenance and replacement expenditure) will largely depend on its confidence in its ability to recover those costs. In a future with declaration, Queensland Rail may seek to recover the costs of this investment from its users via access charges, provided the investment has been approved by the QCA. In a future without declaration, Queensland Rail can similarly seek to recover the costs of its investments through an exercise of its market power over its users, and in this case, the investments do not have to be approved as prudent and efficient by the QCA. Therefore, the QCA considers that declaration is unlikely to significantly affect Queensland Rail's incentives to invest in the below-rail facility, as long as it can recover the costs from its users (and/or through the government subsidy). The QCA recognises the availability of Queensland Government subsidies could affect Queensland Rail's incentives for investment in certain systems; and these incentives are likely to be independent of whether or not the service is declared.

The QCA considers that in both a future with and without declaration, most of the investments in below-rail facilities would likely continue to be undertaken by Queensland Rail, as it is the railway manager. However, situations may arise where a user contributes directly to an investment in below-rail facilities through an upfront payment. For example, a user may pay for a proportion of the costs of a new passing loop in conjunction with Queensland Rail, or may pay the full cost of an investment into a private rail siding (e.g. to connect to grain silos) or a private rail yard. In these cases, the QCA considers that declaration will have a positive effect on

[652] South West Producers, sub. 40, p. 13.

promoting investments by users. This is because any investments in below-rail facilities are likely to be highly site-specific and sunk[653]; the presence of sunk investments leads to the risk of hold-up (for example, see section 5.6.2). Specifically, in a future without declaration, there is a risk that once the user has made the investment, Queensland Rail may subsequently exercise its market power to expropriate the value of that investment from the user. A user can foresee this risk in a future without declaration, and may be less inclined to contribute to an investment in the below-rail facilities, even if such an investment would otherwise be efficient.

In contrast, in a future with declaration, the QCA considers that the regulatory regime would impose an effective long-term constraint on Queensland Rail's ability and incentive to exercise market power (for example, to hold-up a user). Therefore, the QCA considers that declaration would be likely to promote users of the Queensland Rail service to make investments in the below-rail facilities, given that users can have confidence that they will reap the benefits of their current investment in the future.

Having regard to its general assessment of the likely future with and without declaration, the QCA has also considered specific issues applicable to each service, as outlined below.

13.4.3 The service as a whole

Queensland Rail submitted that it has excess capacity across its network[654], and it is not evident that additional below-rail investment would be required to accommodate new demand in the near future on the network.

As discussed in section 13.4.2 above, the QCA considers that declaration is unlikely to significantly affect Queensland Rail's incentives to invest in the below-rail network, however, declaration would likely have the effect of promoting investment by users in the network. On balance, the QCA considers that declaration of the service as a whole is likely to have a small positive effect on investment in the Queensland Rail below-rail network.

13.4.4 North Coast Route service

The QCA has concluded that the stable market environment created by declaration is likely to promote a material increase in competition in the above-rail haulage market on the North Coast Route. This could promote higher utilisation compared to the situation that may exist in the absence of declaration.

The North Coast Line and the Metropolitan Line currently have significant spare capacity.[655] Further, Queensland Rail is more dependent on TSC funding for the North Coast Line (compared to the Mount Isa Line or West Moreton system); this was $152.3 million in 2017–18, comprising approximately 75 per cent of its total revenue.[656] While increased utilisation would increase the revenue that it can earn from access charges, Queensland Rail is still likely to remain heavily reliant on TSC funding for this line.

The QCA notes that Queensland Rail has undertaken recent investments on the North Coast Line, including restoring the Yeppoon branch line and repairing sections of the North Coast Line

[653] For example, a passing loop on the West Moreton system has very little alternative use elsewhere.
[654] Queensland Rail, sub. 33, p. 22, para. 118.
[655] Queensland Rail, sub. 33, p. 77, para. 403.
[656] Queensland Rail, *Financial Statements for the Year Ended 30 June 2018, Below Rail Services Provided by Queensland Rail*, p. 4, https://www.queenslandrail.com.au/business/acccess/Compliance%20and%20reporting/2017-18%20Below%20Rail%20Financial%20Statements.pdf.

due to flooding.[657] To the extent that users may be incentivised or required to invest in improvements to the North Coast Route infrastructure over the future period for declaration, the QCA considers that its analysis in section 13.4.2 applies in relation to the incentives facing a user to invest in the below-rail infrastructure on the North Coast Route.

On balance, the QCA considers that declaration is likely to have a positive, albeit small, effect on investment in below-rail facilities used in relation to the North Coast Route service.

13.4.5 Mount Isa Route service

The QCA understands that the Mount Isa Line is the only rail system in the Queensland Rail network that operates on a purely commercial basis; that is, it does not depend upon TSC payments to fund its operation, maintenance or expansions (if needed).[658] Queensland Rail's Mount Isa Line Rail Infrastructure Master Plan notes that any future investments to increase capacity on the Mount Isa Line will be fully funded through access charges, on a user-pays basis. However, Queensland Rail also noted that this system currently has significant excess capacity 'with no portion of the system operating at over 60 per cent utilisation'.[659]

The QCA has concluded that the stable market environment created by declaration is likely to promote a material increase in competition in the North West minerals tenements market, which is dependent on the Mount Isa Route service. This could promote higher utilisation of the Mount Isa Route compared to the situation that may exist in the absence of declaration. However, given the excess capacity that is available, it is not evident that additional below-rail investment would be required to accommodate new demand in the near future.

The recent impacts to the Mount Isa Line as a result of flooding events has attracted state and federal government funding to support maintenance and upgrades on the line to ensure it will be better equipped to respond to severe and unexpected weather events.[660] To the extent that users may be incentivised or required to invest in improvements to the Mount Isa Route infrastructure over the future period for declaration, the QCA considers that its analysis in section 13.4.2 above applies in relation to the incentives facing a user to invest in the below-rail infrastructure on the Mount Isa Route.

On balance, the QCA considers that declaration is likely to have a positive, albeit small, effect on investment in below-rail facilities used in relation to the Mount Isa Route service.

13.4.6 West Moreton Route service

Queensland Rail did not express any specific views in relation to the effect of declaration on investment in the West Moreton system or the Metropolitan system. As noted above, the South West Producers considered that declaration would promote, and has promoted, investment in below-rail facilities on these systems. Queensland Rail has indicated that the West Moreton

[657] Queensland Rail, *Annual and Financial Report 2018–19*, pp. 30–33, https://www.queenslandrail.com.au/about%20us/Documents/Queensland%20Rail%20Annual%20and%20Financial%20Report%202018-19.pdf.

[658] Queensland Rail, sub. 8, p. 1, para. 4. See also the Department of Transport and Main Roads, Rail Transport Contracts and Agreements, Queensland Government, 2018, https://www.tmr.qld.gov.au/business-industry/Transport-sectors/Rail-services-and-infrastructure/Rail-Transport-Contracts-and-Agreements.

[659] Queensland Rail, sub. 33, p. 80, para. 409.1.

[660] Bailey, M, *Mount Isa Line flood repairs put freight on the fast track*, media release, Queensland Government, 26 April 2019, http://statements.qld.gov.au/Statement/2019/4/26/mount-isa-line-flood-repairs-put-freight-on-the-fast-track.

system has 42 per cent spare capacity based on contracted paths[661], although it has also suggested that capacity constraints on the Toowoomba Range could trigger the need for an expansion, particularly if New Acland Stage 3 is developed.[662] While the case for expansion does not currently apply, it could be the case in future. In addition, the QCA notes that in 2017–18, only a very small proportion of West Moreton system revenue (less than 1 per cent) came from TSC funding.[663]

The West Moreton system is dependent on coal access charges for funding, which accounted for approximately 91 per cent of revenue for this system in 2017–18.[664] A reference tariff is published in the 2016 Queensland Rail access undertaking for access to the coal service provided on the West Moreton and Metropolitan systems. This differs from the regulatory regime for the remainder of Queensland Rail's service, as no reference tariff applies to the other services.[665] The QCA considers that this publicly available reference tariff provides additional pricing certainty for coal access seekers and access holders on the West Moreton and Metropolitan systems.

The South West Producers submitted that the access regime has in the past mitigated the effects of uncertainty around volumes on the West Moreton coal rail access service:

> The application of a reference tariff under the existing declaration (and the resetting of tariffs at the time of QR's Access Undertaking 1) effectively immunised QR from the volume risk associated with the Wilkie Creek mine shutting, and the QCA's presence provides certainty to both QR and access holders / seekers that even with uncertainty around volumes it will be possible to resolve a tariff that mitigates the consequences of such uncertainty of volume.[666]

The QCA has concluded that the stable market environment created by declaration is likely to promote a material increase in competition in the coal tenements market in the West Moreton region, which is dependent on access to the West Moreton Route service. To the extent that this increases utilisation and the demand for below-rail services, it could also trigger investment in the network, although at least in the medium term, this may mainly be required to alleviate capacity constraints on the Toowoomba Range.

The QCA considers that on balance, declaration is likely to have a positive, albeit small, effect on investment in below-rail facilities used in relation to the West Moreton Route service.

13.4.7 South Western, Western and Central Western Route services

The QCA has concluded that the stable market environment created by declaration is likely to promote a material increase in competition in the above-rail freight haulage markets on the South Western, Western and Central Western Route services.

The QCA notes that the below-rail services provided on these agricultural systems are heavily dependent on TSC funding, and low volumes of freight are currently transported on these systems. However, as noted in section 13.2.2, the QCA has reviewed its analysis in the draft recommendation after considering the submissions received from stakeholders in response to

[661] Queensland Rail, sub. 33, p. 80, para. 409.1.
[662] This assumes that coal services are not limited by path constraints in the Metropolitan system.
[663] Queensland Rail, *Financial Statements for the Year Ended 30 June 2018*, *Below Rail Services Provided by Queensland Rail*, p. 4.
[664] Queensland Rail, *Financial Statements for the Year Ended 30 June 2018, Below Rail Services Provided by Queensland Rail*, p. 4.
[665] Whether the QCA approves reference tariffs for other systems in a future with declaration is a matter for the applicable undertaking process and is outside the scope of the review. See s. 101 of the QCA Act.
[666] South West Producers, sub. 31, p. 20.

the draft recommendation. On the basis of the material before it, the QCA considers that declaration is likely to have a small positive effect on investment in facilities used in relation to the agricultural systems. In particular, it is no longer the case, as the QCA considered in its draft recommendation, that the only services that operate on the agricultural systems are those provided under an above-rail subsidy. The presence of commercial (i.e. non-subsidised) above-rail operators on the agricultural systems enhances the possibility that a third party may make investments in facilities over the proposed declaration period, and the QCA considers that the effect of declaration would be to promote such investments being made, as users can have confidence that they will reap the benefits of their investments into the future.

Therefore, the QCA considers that on balance, declaration is likely to have a positive, albeit small, effect on investment in below-rail facilities used in relation to the South Western, Western and Central Western Route services.

13.4.8 Tablelands system service

The QCA has concluded that declaration is unlikely to promote a material increase in competition in any dependent markets of the Tablelands system service, including the above-rail passenger market.

The QCA notes that both below-rail and above-rail services on the Tablelands system are heavily dependent on TSC subsidies for their continued operation (see section 9.4.2). The QCA considers that the prominent and decisive factor informing a decision to invest in below-rail facilities in relation to the Tablelands system service, whether that decision is made by Queensland Rail or a third party, is the presence of government subsidies.

As such, the QCA considers that declaration would be unlikely to have a positive effect in promoting investment in below-rail facilities used in relation to the Tablelands system service.

13.5 Investment in markets that depend on access to the service

In considering criterion (d), the QCA is required to have regard to:

> the effect that declaring the service would have on investment in markets that depend on access to the service[667]

The QCA considers that declaration would likely have a positive effect on investment in dependent markets of the services on the North Coast Route, Mount Isa Route, West Moreton Route and the agricultural systems. The QCA considers that declaration is unlikely to have an effect on investment in dependent markets of the service on the Tablelands system.

In particular, the QCA has considered the relevant circumstances in each of the services, and considers that declaration will have a positive effect on investment in the following dependent markets:

- North Coast Route service—the above-rail haulage market
- Mount Isa Route—the North West Queensland minerals tenements market
- West Moreton Route service—the coal tenements market in the West Moreton region
- South Western, Western and Central Western Route services—the above-rail haulage markets dependent on each respective service.

[667] Section 76(5)(b)(ii) of the QCA Act.

13.5.1 Stakeholder submissions

Queensland Rail submitted that it has a strong incentive to promote efficient investment and entry into related markets as it will increase the utilisation of its systems, noting that it has substantial spare capacity on its networks.[668] It stated:

> The ACCC has previously recognised that the private commercial incentives of rail infrastructure access holders align with the promotion of the public interest, as non-vertically integrated rail access holders have incentives to increase the efficient use and operation of the network, promote efficient investment in the network, and to increase rail volumes and asset utilisation.[669]

Queensland Rail considered that submissions made by Pacific National, Glencore and the South West Producers on the effect of declaration on incentives to invest in dependent markets of the North Coast Line, Mount Isa Line and West Moreton system are overstated, with investments likely to have still occurred in the absence of declaration.[670]

Queensland Rail argued that these submissions have failed to establish the required nexus between declaration and increased investment and ignored Queensland Rail's incentives to promote investment. Further, despite claims that declaration has promoted a 'stable regulatory environment' that is conducive to investment, Queensland Rail argued that its access framework will result in an environment and investment opportunities that are not materially different, when comparing the future with and without declaration.[671] It argued:

> The immateriality of any difference between the future with and without is established by the basic fact that users, including Pacific National, Glencore and other users currently acquire access to the North Coast Line and Mount Isa Line pursuant to prices contained in negotiated agreements with Queensland Rail. There is no evidence to suggest that such commercial agreements will not be struck on substantively similar terms in the future without declaration under the Access Framework. Further, the beneficial terms of access already extracted by users reflect non-regulatory constraints which ultimately discipline Queensland Rail, including access prices well below the costs of providing the service, and long term agreements which often do not contain full take or pay requirements.[672]

A number of stakeholders refuted Queensland Rail's claims that it is incentivised to promote investment and entry into related markets. The South West Producers argued that even though it is not vertically integrated, Queensland Rail is still incentivised to maximise profits and does not face the constraints that it has claimed.[673] It refuted Queensland Rail's claims that the access framework will still result in public benefits, as the framework is not seen as providing reasonable terms and conditions:

> The flaws in the Deed Poll means that even if it is considered as part of the likely future without declaration (which the South West Producers contend it should not), it does not constrain QR's conduct or the adverse public interest impacts in the way QR asserts.[674]

The South West Producers were concerned that in the absence of declaration, Queensland Rail would significantly increase prices after producers have incurred sunk costs in coal

[668] Queensland Rail, sub. 33, p. 80, para. 407.
[669] Queensland Rail, sub. 33, p. 80, para. 408.
[670] Queensland Rail, sub. 33, p. 80, para. 410.
[671] Queensland Rail, sub. 33, p. 81, para. 413.
[672] Queensland Rail, sub. 33, pp. 81–82, para. 414.
[673] South West Producers, sub. 40, p. 46.
[674] South West Producers, sub. 40, p. 47.

development. They considered that this 'economic holdup' would not exist where there are reference tariffs and the QCA can arbitrate access disputes.[675]

Glencore commented that while Queensland Rail may still provide access without declaration, such access may not be on reasonable terms and conditions, given that prices (and non-price terms) are effectively unconstrained 'and it is that potential for monopoly pricing and other monopolistic behaviour which impacts on the incentives to make investments in the minerals tenements market and a variety of other public interest factors'.[676] It also noted that Queensland Rail remains incentivised to maximise profits, and in the absence of declaration it will not be constrained in exercising its market power and engaging in monopoly pricing. Glencore considered that the protections under the QCA Act, along with having the QCA as regulator, serve as substantial constraints on Queensland Rail's behaviour.

Watco expressed significant concerns with Queensland Rail's access framework and the uncertainty it creates, and observed the following, based on its experience in Western Australia:

> Our experience with CBH in Western Australia where "what the market can bear" principles were used has led to significant closures of regional railway lines. These lines were considered by Watco as safe and profitable; but economic theory was applied, including 'hub and spoke' principles of roading to the nearest railhead with the principle of consolidation to create economic scale. Unfortunately, once the task has transferred from rail to road it tends to stay on that mode. This grain freight now arrives at the Kwinana Port via the metropolitan road network in Perth.[677]

Watco highlighted that the only avenue available to challenge amendments to Queensland Rail's access framework is legal proceedings 'which are cost and time prohibitive and generally ineffective (as experienced in the ongoing grain rail freight network access dispute in Western Australia between the track provider and access seeker)'.[678] Watco considered that having the QCA being able to determine access disputes creates more certainty as to how such disputes will be assessed.

13.5.2 QCA analysis—general principles

It is evident from stakeholders' submissions that in making decisions to invest in dependent markets, long-term certainty of below-rail network access, and the terms and conditions of that access, are key factors. Queensland Rail submitted that it is incentivised to promote investment and entry into related markets and that it will continue to provide access on reasonable terms and conditions under its access framework. Stakeholders have generally disagreed with this, arguing that there will be no real constraints that would prevent Queensland Rail from misusing its market power to 'extract monopoly rents'.[679] Queensland Rail's access framework is not seen by its users as providing any certainty, which could lead to time-consuming and costly disputes, including over any proposed amendments to the terms of the framework. The QCA's analysis of Queensland Rail's access framework is in Part B, Chapter 4.

In assessing the potential impact of declaration on investment in dependent markets, the QCA has considered the likely environment in a future with declaration compared to a future without declaration. There are inherent challenges in undertaking this analysis, recognising that a number of factors will influence behaviour and investment decision-making. Practically, this has

[675] South West Producers, sub. 31, p. 20.
[676] Glencore, sub. 41, p. 28.
[677] Watco, sub. 48, p. 3.
[678] Watco. sub. 48, p. 3.
[679] See for example, South West Producers, sub. 40, p. 20.

also meant that the assessment of the extent to which declaration will impact investment in dependent markets (and hence promote the public interest) is linked to the analyses made in relation to criterion (a).

The QCA considers that in a future with declaration, the regulatory regime forms an effective long-term constraint on Queensland Rail's ability and incentive to exercise market power, and will provide certainty to market participants in dependent markets that access to the service will be provided on reasonable terms and conditions. Market participants are thus more likely to make investments in dependent markets, given that they can have confidence that they will reap the benefits of their investment into the future. In contrast, the QCA considers that in a future without declaration, market participants are exposed to the risk of an exercise of market power by Queensland Rail, including the risk of hold-up (see for example, section 5.6.2). Stakeholders have submitted that the risk that the value of their investments could be expropriated ex post could undermine their investment decisions in dependent markets.

The QCA considers that in a future without declaration, Queensland Rail will not face any effective long-term constraints on its ability and incentive to exercise market power. Even if Queensland Rail's access framework is put in place in the absence of declaration (so as to govern access to services on the North Coast Line, Mount Isa Line, West Moreton system and Metropolitan system), the QCA has concluded that this will not be an effective long-term constraint on Queensland Rail's ability and incentive to exercise market power (see Part B, Chapter 4). This could result in an environment that is characterised by protracted negotiations and costly disputes, which could in turn lead to reduced output and investment, as well as deter market entry.

Having regard to its general assessment of the likely future with and without declaration, the QCA has also considered specific issues applicable to each service, as outlined below.

13.5.3 The service as a whole

The service as a whole is defined in s. 250(1)(b) of the QCA Act. In the analysis of criterion (a), the QCA has not identified a market, which depends on access to the Queensland Rail service as a whole, that satisfied criterion (a). As such, the QCA could not be satisfied that access (or increased access) to the service as a whole, on reasonable terms and conditions, as a result of a declaration of the service as a whole, would promote a material increase in competition in one or more dependent markets (even though access as a result of a declaration of part of the service may do so).

In considering criterion (d), and having regard to the conclusion reached in criterion (a), the QCA has been unable to identify a market that depends on access to the service as a whole, in which the QCA considers that declaration would be likely to promote investment. As a result, the QCA considers that declaring the service as a whole would be unlikely to have an effect on investment in markets that depend on access to the service as a whole. However, the QCA notes that there are various markets that depend on access to various parts of the service. These effects are considered below.

13.5.4 North Coast Route service

Queensland Rail reiterated its incentives to promote utilisation of the 'heavily subsidised, underutilised' North Coast Line, submitting that it 'will set terms and conditions of access to promote efficient investment and promote entry, notwithstanding the exceedingly high barriers

to entry into narrow-gauge intermodal rail markets which render entry unlikely with or without declaration.'[680]

Pacific National said that declaration has promoted investment in the above-rail haulage market:

> PN's market entry and success in Queensland, across a number of varied freight tasks [i.e. for both haulage of non-bulk freight and bulk freight] relied on the stable operation of the economic regulatory framework … PN considers that continued declaration … under Part 5 of the QCA Act is critical to promoting competition and freight transport supply chain investment moving forward.[681]
>
> …
>
> [The benefits of declaration] extend well beyond simply constraining the exercise of market power and ensuring that a balanced risk profile underpins the setting of terms and conditions of access. Declaration has facilitated the introduction of important structural and behavioural constraints … and has underpinned the growth of competition in related upstream and downstream markets.[682]

Pacific National said that this growth of competition has in turn led to increased investment in the above-rail haulage market in terms of increased operational efficiency and increased innovation in above-rail rollingstock. It referred to the significant amounts of capital investment it had undertaken in both intermodal and bulk rollingstock, freight terminals and maintenance facilities, and said that this investment 'would not have been justified, absent a stable regulatory environment'.[683]

Queensland Rail refuted Pacific National's claims that its investment into the Queensland market was 'critically dependent' on the declaration of the North Coast Line.[684] It argued that this was driven by the privatisation of government-owned above-rail operations and the sponsorship of Pacific National's entry into this market via Toll. It stated:

> Following Pacific National's rapid increase in scale, Toll sponsored Pacific National's entry into the Queensland North Coast Freight corridor in March 2005, by shifting its customer volumes, said to account for 70% of Queensland Rail's above-rail freight volumes at the time, from Queensland Rail to Pacific National. At that time, Queensland Rail was vertically integrated, which is no longer the case today.[685]

The QCA considers that the fact that Pacific National made significant investments to enter the above-rail haulage market on the North Coast Route at a time when Queensland Rail was vertically integrated strongly suggests that declaration and the presence of the regulatory regime have been successful in promoting investment in the above-rail haulage market on the North Coast Route in the past.[686] This is because, prima facie, a vertically integrated Queensland Rail had stronger incentives to exercise its market power in a way that favoured its related above-rail haulage provider (QR National at that time), to the detriment of an entrant competitor such as Pacific National, compared to a non-vertically integrated entity (such as the current Queensland Rail). As Pacific National submitted, its view was that 'declaration and

[680] Queensland Rail, sub. 33, p. 82, para. 417.
[681] Pacific National, sub. 9, p. 3.
[682] Pacific National, sub. 9, p. 4.
[683] Pacific National, sub. 9, p. 6.
[684] Queensland Rail, sub. 33, p. 82, paras 415–16.
[685] Queensland Rail, sub. 33, p. 82, para. 416.2.
[686] The QCA, and the regulatory regime established under the QCA Act, was established in 1997.

effective regulation have facilitated entry and strong business growth for PN in Queensland'[687] and that:

> [t]he stable market environment created by declaration promotes efficient investment in the above-rail haulage market and promotes investment in below-rail infrastructure. PN's entry and expansion in Queensland was critically dependent on this stable regulatory environment.[688]

On the basis of the material before it, the QCA considers that in a future with declaration, the regulatory regime imposes an effective long-term constraint on Queensland Rail's ability and incentive to exercise market power (for example, to hold up a user), and thus reduces the risk of undertaking an investment in the above-rail haulage market. The QCA considers that a future with declaration is likely to promote efficient investment in the above-rail haulage market on the North Coast Route, as above-rail operators can be more certain that they will reap the benefits of their investments (e.g. into rollingstock efficiency) into the future.

Therefore, on balance, the QCA considers that declaration is likely to have a positive effect on investment in the above-rail haulage market, a dependent market of the North Coast Route service.

13.5.5 Mount Isa Route service

Queensland Rail reiterated its incentives to promote investment in dependent markets given the significant spare capacity on the Mount Isa (and West Moreton) systems, stating that each system is only recovering sufficient revenue to cover operating (and not capital) costs.[689] It also argued that there are more material factors affecting investment in dependent markets that are not related to declaration which, in the case of the Mount Isa Line, include:

- the risks associated with operating in global commodity markets
- the impact of Aurizon's exit from the intermodal market, affecting Pacific National's incentives to invest
- continued competition from road transport, necessitating continued investment in rail efficiency improvements.[690]

Queensland Rail also submitted that Glencore had overstated the relative significance of below-rail freight costs in assessing the risks and returns of mining investment, arguing that 'in respect of the Mount Isa Line, below-rail costs represent 0.3% of the copper price, 0.8% of the zinc price, 0.9% of the lead price and 5% of the fertiliser price.'[691]

Glencore submitted that criterion (d) is clearly satisfied in respect of the Mount Isa Route service and that access as a result of declaration has facilitated investment in the North West Queensland mining industry, including dependent markets such as:

- the market for mining tenements
- the market for above-rail haulage services

[687] Pacific National, sub. 37, p. 3.
[688] Pacific National, sub. 37, p. 4.
[689] Queensland Rail, sub. 33, p. 83, para. 419.
[690] Queensland Rail, sub. 33, p. 83, para. 421.
[691] Queensland Rail, sub. 33, p. 83, para. 420.

- other indirect markets, such as the market for labour (employment) in the North West Queensland mining industry and the market for household goods and services in North West Queensland regional communities.[692]

Glencore gave specific examples of the beneficial effect that declaring the Mount Isa Route service would have on investment in dependent markets. For example, it said that access as a result of declaration has minimised barriers to entry especially for new and junior investors, thus facilitating investment in the mining tenements market.[693] It viewed that declaration provides long-term assurance for access, and the certainty to support the 'significant sunk costs required in the exploration, establishment and development phases', thus supporting the continued investment in the North West Queensland mining industry.[694]

Glencore also considered that the QCA underestimated the impact of 'no declaration' on mining investment in the draft recommendation, when the QCA concluded that only additional investment in dependent markets would be promoted. It said the QCA 'does not fully appreciate the significant levels of risk inherent in logistics cost and how this would impact any investment in mining with or without declaration'[695]. In particular, Glencore noted:

> As an entity that has actually considered and made investments in the North West Queensland minerals province, Glencore implores the QCA to appreciate that declaration is a material driver of investment in the mining industry. This is particularly the case when considering the:
>
> (a) nature of the products produced in the North West Queensland minerals province, being bulk commodities;
>
> (b) cost of logistics for a mining operation as a key investment decision and as a significant portion of costs once a mine is operational; and
>
> (c) very significant distance between the North West Queensland minerals province and the point of export at the Port of Townsville.

Glencore argued that all investment would be impacted, noting that declaration is a material driver of investment in the mining industry. It considered that in the absence of declaration, it would be an 'impossible expectation' for a new or existing miner to take on the 'enormous' levels of risk in exploring and developing a new tenement so far from the point of export, and negotiating access with no certainty as to whether the outcome of those negotiations will produce economically or commercially feasible terms.[696]

The QCA notes that the existence of declaration is one of a number of factors affecting investment decisions in the North West Queensland minerals tenements market, and that some level of investment would be expected in that market in any case. However, in considering the effect of declaration on investment in dependent markets, the QCA is satisfied that declaration will promote additional positive investment effects in the North West Queensland minerals tenements market, compared to a future without declaration.

The QCA notes submissions by Queensland Rail that past access charges on the Mount Isa Route service are a small proportion of the price of some of the commodities transported on the service. However, the QCA considers that these charges are reflective of an environment with declaration, and are not necessarily informative of a future without declaration. Additionally,

[692] Glencore, sub. 5, pp. 18–19.
[693] Glencore, sub. 5, p. 19.
[694] Glencore, sub. 5, p. 19.
[695] Glencore, sub. 41, p. 28.
[696] Glencore, sub. 41, p. 28.

access terms in relation to pricing is one of many considerations in comparing a future with and without declaration.

On the basis of the material before it, the QCA considers that in a future with declaration, the regulatory regime imposes an effective long-term constraint on Queensland Rail's ability and incentive to exercise market power (for example, to hold up a user), and thus reduces the risk of undertaking an investment in the North West Queensland minerals tenements market.

Therefore, on balance, the QCA considers that declaration is likely to have a positive effect on investment in the North West Queensland minerals tenements market, a dependent market of the Mount Isa Route service.

13.5.6 West Moreton Route service

Queensland Rail highlighted the incentives that it has to promote investment in underutilised systems (including the West Moreton system), and named other material factors affecting investment in dependent markets that are not related to declaration, which in the case of the West Moreton system include:

- the risks associated with operating in global commodity markets
- the uncertainty as to New Acland Stage 3
- the potential impact of the Inland Rail and/or Surat Rail Basin projects, which could deter investment in the West Moreton system.[697]

Queensland Rail also submitted that the South West Producers had overstated below-rail costs relative to the risks and returns of undertaking mining investments.[698]

The South West Producers submitted that the long-term certainty and transparency of price and non-price terms have promoted, and will continue to promote, investment in the West Moreton region coal tenements market.[699] They pointed to the decisions by Yancoal to increase production at the Cameby Downs mine (expanding from 1.8 mtpa initially to around 2–2.5 mtpa currently), and to the proposal by New Hope to extend the operation timeframe of the New Acland mine, as evidence that declaration has promoted investment in mining facilities.[700] The South West Producers submitted that the investment in these mines were made, in part, in reliance on the certainty provided by the declaration and resulting access undertaking.[701]

The South West Producers further contended that if declaration was retained in the Central Queensland Coal Network and Hunter Valley, but not for the West Moreton system and Metropolitan systems, the relative lack of pricing constraints and transparency would be taken into account by investors in determining whether to invest in coal tenements in the West Moreton region.[702] The South West Producers argued:

> Given the importance of rail infrastructure costs for both coal investments and above rail investments, and the long term nature of such investments, the uncertainty of pricing (and access), will make it difficult if not impossible to provide any certainty to financiers or investors regarding the returns that are achievable. That, at a minimum significantly increases financing

[697] Queensland Rail, sub. 33, p. 83, para. 421.
[698] Queensland Rail, sub. 33, p. 83, para. 420.
[699] South West Producers, sub. 31, pp. 19–20.
[700] South West Producers, sub. 4, p. 51.
[701] South West Producers, sub. 4, p. 51.
[702] South West Producers, sub. 40, p. 47.

> costs (thereby reducing profitability and, in turn, the prospects of investment), and more likely simply makes such projects completely unbankable.[703]

Once again, the QCA notes that the presence of declaration is one of a number of factors affecting investment decisions in the coal tenements market in the West Moreton region and that some level of investment would be expected in that market in any case. However, in considering the effect of declaration on investment in dependent markets, the QCA is satisfied that declaration will promote additional positive investment effects in the dependent market, compared to a future without declaration. On the basis of the material before it, the QCA considers that in a future with declaration, the regulatory regime imposes an effective long-term constraint on Queensland Rail's ability and incentive to exercise market power (for example, to hold up a user), and thus reduces the risk of undertaking an investment in the coal tenements market in the West Moreton region.

Therefore, on balance, the QCA considers that declaration is likely to have a positive effect on investment in the coal tenements market in the West Moreton region, a dependent market of the West Moreton Route service.

13.5.7 South Western, Western and Central Western Route services

Watco submitted that declaration has supported 'significant investment and competitive entry', citing its entry into the grain freight market on the Central Western, Western and South Western systems.[704] It argued that declaration promotes long-term certainty as to the rights of access and its availability on reasonable terms, which will facilitate investment. It also pointed to the opportunities that currently exist, stating that it is 'actively investigating' other freight opportunities in central and south-western Queensland. It highlighted that as part of its discussions:

> Watco has been surprised with the resurgent interest in shifting freight from road to rail and identifying investment and innovation opportunities to enable this to occur. Watco's corporate history of similar investments in Western Australia and in North America support these potential opportunities in Queensland, with stable track access arrangements one of the keys to its success.[705]

Some examples of investments Watco has made to facilitate its entry into the above-rail freight haulage markets on the South Western, Western and Central Western Routes are discussed in section 8.6.2.

GrainCorp also submitted that declaration has supported investment and growth in competition in grain supply chains in Queensland, citing the decision by Watco to enter the relevant above-rail markets in Queensland to fulfil GrainCorp's grain haulage contract. It stated:

> This competitive entry and investment has been underpinned by a stable regulatory framework which provides certainty around the terms of access to below rail infrastructure.[706]

GrainCorp highlighted that, in conjunction with its new arrangements with Watco, it is 'currently assessing business cases for proposed strategic investments in new sites and rail loading capability to achieve greater efficiencies to support the rail to port supply chain'.[707] GrainCorp also said that significant investments in above-rail and supply chain infrastructure

[703] South West Producers, sub. 31, p. 21.
[704] Watco, sub. 48, p. 6.
[705] Watco, sub. 48, p. 6.
[706] GrainCorp, sub. 52, p. 3.
[707] GrainCorp, sub. 52, p. 3.

have already been committed, which have been underpinned by the indicative access arrangements and pricing offered by Queensland Rail.[708]

GrainCorp noted that access charges are already higher than in other states and is concerned about a material increase in charges in the absence of declaration. It is concerned that in the absence of declaration, Queensland Rail 'would be free to exercise monopoly power in ways that could undermine the value of long-term investments', with the risk of hold-up potentially undermining the business case for future investment.[709]

GrainCorp also highlighted the importance of cost-effective rail transport to the agricultural sector, which will affect returns and ultimately investment in this sector, saying:

> Queensland grain exports are dependent on access to below rail infrastructure on reasonable terms … a significant proportion of grain exports must be carried by rail, given road capacity constraints. The terms of access to essential rail infrastructure directly impacts on the profitability of grain exports and returns to farmers.[710]

It stated that supply chain costs are the single largest cost for grain farmers.

In the context of the Central Western system, Linfox submitted that essential items are transported into this region, some of which are used to produce agricultural products for domestic and international markets.[711] If costs increase, which it considered likely in the absence of declaration, this will have a negative impact on dependent regional markets via higher input costs, lower productivity and reduced competitiveness. This in turn will have a detrimental impact on investment.

Queensland Rail did not make detailed submissions in relation to criterion (d) issues for the agricultural systems, noting only that it agreed with the QCA's draft recommendation that the services provided on the Western, South Western and Central Western systems would not promote the public interest:

> It is evident that the services provided on these systems will be provided in the same manner, pursuant to TSC subsidies and for public policy reasons with or without declaration.[712]

The QCA has reviewed its analysis in the draft recommendation after considering the submissions received from stakeholders in response to the draft recommendation. On the basis of the material before it, the QCA considers that declaration is likely to have a positive effect on investment in the above-rail haulage markets on the agricultural systems. In particular, it is no longer the case that, as the QCA considered in its draft recommendation, the only services that operate on the agricultural systems are those provided under an above-rail subsidy.

The QCA notes that the presence of declaration is one of a number of factors affecting investment decisions in the above-rail haulage market. In particular, it appears that, as was the case with Pacific National, the presence of a haulage contract underwriting the entry is a critical factor affecting an above-rail operator's decision to enter a market in which it has not previously operated. Therefore, it may be the case that some level of investment in the relevant above-rail markets would have occurred in any case. However, in considering the effect of declaration on investment in dependent markets, the QCA is satisfied that declaration will

[708] GrainCorp, sub. 52, p. 12.
[709] GrainCorp, sub. 52, p. 3.
[710] GrainCorp, sub. 52, p. 12.
[711] Linfox, sub. 50, p. 3.
[712] Queensland Rail, sub. 33, p. 91, para. 455.

promote additional positive investment effects in the dependent markets, compared to a future without declaration.

On the basis of the material before it, the QCA considers that in a future with declaration, the regulatory regime imposes an effective long-term constraint on Queensland Rail's ability and incentive to exercise market power (for example, to hold up a user), and thus reduces the risk of undertaking an investment in the above-rail haulage markets on the agricultural systems.

The QCA considers that a future with declaration is likely to promote efficient investment in the above-rail haulage markets on each of the South Western, Western and South Western Routes, as above-rail operators can be more certain that they will reap the benefits of their investments into the future.

Therefore, on balance, the QCA considers that declaration is likely to have a positive effect on investment in the above-rail haulage markets, which are dependent markets of the South Western, Western and Central Western Route services.

13.5.8 Tablelands system service

The QCA has concluded that declaration is unlikely to promote a material increase in competition in any dependent markets of the Tablelands system service, including the above-rail passenger market.

The QCA considers that both below- and above-rail services on the Tablelands system are heavily dependent on TSC subsidies for their continued operation (see section 9.4.2). The QCA considers that the prominent and decisive factor informing a decision to invest in the above-rail passenger market on the Tablelands system is the presence of government subsidies. In particular, based on the evidence before it, the QCA considers that both above-rail and below-rail services on the Tablelands system depend on TSC subsidies to fund investments to support the continued operation of these services. As such, the QCA considers that declaration would be unlikely to have a positive effect in promoting investment in the above-rail passenger market dependent on the Tablelands system service.

The QCA notes that other dependent markets may include the downstream tourism markets in the regions covered by the Tablelands system. However, there is a lack of publicly available information on which to base any analysis of such markets, and therefore the QCA has not formed a view regarding these markets.

13.6 Administrative and compliance costs incurred by the provider of the service

In considering criterion (d), the QCA is required to have regard to:

> the administrative and compliance costs that would be incurred by the provider of the service if the service were declared[713]

In this case, the provider of the service is Queensland Rail. The QCA considers that Queensland Rail would incur administrative and compliance costs if the service were declared. However, the QCA considers that Queensland Rail would be likely to incur some level of administrative and compliance costs in any case. That is, there are costs associated with dealing with multiple users, as long as Queensland Rail provides open access to its network, whether access is provided in a future with declaration or a future without declaration.

[713] Section 76(5)(c) of the QCA Act.

The QCA has considered administrative and compliance costs under three broad categories:

- **The costs incurred by the QCA in regulating Queensland Rail, which are passed on to Queensland Rail through the QCA levy:** Evidence suggests that these costs are passed through to users and are therefore not ultimately borne by Queensland Rail. In any case, they are not considered significant in the context of total access charges.
- **The costs incurred by Queensland Rail in complying with the regulatory regime, including having a QCA-approved access undertaking**: Queensland Rail has indicated that these costs are significant; however, it has not provided any estimates. Further, as Queensland Rail has submitted that its access framework is 'substantially the same' as its approved 2016 access undertaking, it is reasonable to expect that at least some of the costs associated with administering, managing and complying with the access framework would still be incurred.
- **The costs incurred by Queensland Rail in dealing with multiple users:** Queensland Rail has indicated that it will continue to provide third party access in a future without declaration (for example, through the access framework). It will therefore incur costs associated with third party access (such as negotiating access agreements), whether that access is provided in a future with or future without declaration. The QCA considers that these costs are unlikely to be materially different in either future scenario.

The QCA considers that no evidence has been provided to suggest that the costs incurred by Queensland Rail will be materially different in the absence of declaration.

13.6.1 Stakeholder submissions

Queensland Rail generally referred to the costs incurred by regulated entities, the QCA and other stakeholders, arguing that:

> [d]eclaration gives rise to significant direct costs to Queensland Rail, the QCA and other stakeholders including costs of developing access undertakings, costs arising from the reference tariff process, and costs arising from the capital expenditure approval process.[714]

Queensland Rail viewed that the 2016 access undertaking contains 'excessive prescription and unnecessary regulatory burden', including:

- the West Moreton reference tariff process
- the West Moreton capital expenditure process
- onerous reporting requirements, which it argued are disproportionate to any resulting benefits
- requirements to lodge draft amending undertakings to ensure ongoing 'workability' (e.g. in complying with national safety legislation)
- operational constraints prohibiting the provision of maintenance services to private railways
- operational constraints from committing to urgent infrastructure investment (e.g. in response to a safety issue) given the need to seek approval of that expenditure
- the ability to lodge a dispute under the Network Management Principles regarding changes to planned network possessions for maintenance up to the date of the possession.[715]

[714] Queensland Rail, sub. 33, p. 84, para. 425.
[715] Queensland Rail, sub. 33, pp. 84–85, para. 428.

Queensland Rail argued for the costs and benefits arising from declaration to be weighed against each other:

> Regardless of the incidence of these costs, it is critical to weight these costs against the benefits of declaring each system (which would not otherwise arise without declaration) to assess whether on balance, declaration of any system promotes the public interest.[716]

Apart from its share of the QCA levy, Queensland Rail did not provide any estimates of the costs that it incurs internally as a result of declaration—for example, in preparing draft access undertakings to submit to the QCA.

West Moreton system

Queensland Rail highlighted in particular the administrative and compliance costs on the West Moreton system. The QCA currently approves reference tariffs only with respect to the coal train services accessing the West Moreton system and the Metropolitan system. Access charges for all other users across the Queensland Rail network are negotiated directly between Queensland Rail and the user, with no QCA oversight or participation unless an access dispute is referred to the QCA by either party.

Queensland Rail submitted that the West Moreton system incurs the most significant regulatory costs of all of its systems.[717] It stated that:

> Queensland Rail respectfully disagrees with the QCA's view that the compliance costs are 'minor' relative to the total access revenue generated on the system as the QCA FY18 Levy collected was approximately 4% of the total access tariff revenue. Queensland Rail considers that given that access revenues are only sufficient to recover operating costs, let alone a return on the substantial fixed cost base of the system, 4% of access revenues devoted to the QCA levy is significant.[718]

Queensland Rail stated that in comparison:

> Aurizon coal network's expenditure on the QCA levy was less than 0.7% of its coal access revenue in 2017-18, demonstrating that regulatory costs are significant (by several orders of magnitude) in relation to the scale of operations of the West Moreton system.[719]

Queensland Rail also contended that the costs associated with having an approved reference tariff for the West Moreton system outweigh the benefits, and stated its view that the approval process for capital expenditure is more prescriptive than the processes of other regulators.[720]

The South West Producers supported the QCA's views in the draft recommendation on administrative and compliance costs, arguing that:

- the QCA levy is a relatively minor cost, which is ultimately borne by users
- Queensland Rail's administrative and compliance costs are allowed for in reference tariffs
- the benefits of declaration outweigh the administrative and compliance costs.[721]

They also referred to statements by the National Competition Council (NCC), that costs borne by users via access charges are unlikely to be relevant to the assessment of the public interest.

[716] Queensland Rail, sub. 33, p. 85, para. 429.
[717] Queensland Rail, sub. 33, p. 85, para. 430.
[718] Queensland Rail, sub. 33, p. 85, para. 432.
[719] Queensland Rail, sub. 33, p. 85, para. 432.
[720] Queensland Rail, sub. 33, p. 86, box 3.
[721] South West Producers, sub. 31, p. 21.

The South West Producers also argued that it is Queensland Rail's approach to the regulatory process that is causing costs, citing 'ambit pricing claims' under regulation.[722] Further:

> To the extent that QR wishes to decrease regulatory and compliance costs it is always welcome to provide draft amending access undertakings to the QCA seeking to remove or amend provisions that it considers imposes costs that are not justified by public benefit outcomes. The fact that QR has not done that, clearly raises questions about their assertions of undue regulatory burdens that are imposed as a result of declaration.[723]

The South West Producers submitted that as they remain willing to pay for the costs of regulation (via access charges) 'they must see real benefits from the regime in advance of the costs incurred.'[724] Glencore expressed similar views.[725]

The South West Producers highlighted that the costs involved in managing a multi-user system will always exist with and without declaration. They raised an example from the stakeholder forum where Queensland Rail proposed that it will undertake an increased level of consultation in making amendments to the access framework, suggesting it would be a 'QCA like' approach.[726]

Agricultural systems

GrainCorp argued that Queensland Rail's administrative and compliance costs under declaration of the South Western, Western and Central Western systems would be low, because the QCA levy does not apply to services on those systems and, in its view, the ongoing compliance and administration needs of the QCA from Queensland Rail in relation to these systems are minimal.[727] In any case, it considered that the costs would be outweighed by the benefits of declaration.

Watco agreed with GrainCorp, noting that it also considered that 'the costs of QCA administering the regulatory regime applicable to declared systems are small compared to the considerable benefits of declaration'.[728] Similarly, Linfox considered that 'the incremental cost of maintaining the declared regulatory regime in relation to the Central West Rail System are small when compared to the benefits of declaration'.[729]

13.6.2 QCA analysis—general principles

Queensland Rail noted several examples of what it considered to be relevant regulatory costs:

> Relevant regulatory costs include:
>
> (1) Costs borne by the QCA is [sic] regulating declared facilities including $3.7 million in considering DAUs in 2014-15 and 2015-16, and resourcing costs borne by the QCA which are not publicly available.
>
> (2) Costs incurred by regulated entities pursuant to the QCA Levy. In 2015-16, the QCA generated $13.9 million in fees received from regulated entities from the QCA levy, of which Queensland Rail spent $760,452.
>
> (3) Costs incurred by regulated entities in developing Access Undertakings.

[722] South West Producers, sub. 40, p. 48.
[723] South West Producers, sub. 40, p. 48.
[724] South West Producers, sub. 40, p. 48.
[725] Glencore, sub. 41, p. 29.
[726] South West Producers, sub. 40, p. 48.
[727] GrainCorp, sub. 52, p. 14.
[728] Watco, sub. 48, p. 6.
[729] Linfox, sub. 50, para. 3.12.

(4) Costs incurred by access seekers associated with the expense of the QCA process. For example, New Hope Corporation acknowledged the expense of the QCA process writing:

The development of a new undertaking for Queensland Rail (QR) has been costly and time consuming, and the resulting lack of regulatory certainty has caused a loss of confidence in the long term future of the Western System.[730]

Queensland Rail has provided examples of costs incurred by various parties due to the regulatory process. However, the QCA notes that s. 76(5)(c) of the QCA Act specifically directs the QCA to the costs that would be incurred by the *provider of the service* if the service were declared. As such, the QCA's view is that some of the costs referred to by Queensland Rail[731] should not be considered for the purposes of s. 76(5)(c), but may be considered as other relevant matters under s. 76(5)(d).

The costs that would be incurred by Queensland Rail if the service were declared can be discussed under three broad categories:

- the costs incurred by the QCA in regulating Queensland Rail, which are passed on to Queensland Rail through the QCA levy
- the costs incurred by Queensland Rail in complying with the regulatory regime (e.g. costs of preparing undertakings as well as ongoing compliance costs)
- the costs incurred by Queensland Rail in dealing with multiple users of its service (e.g. costs of negotiating access contracts, and train coordination and maintenance costs).

In comparing the future 'with and without' declaration, the QCA is interested in the extent to which a future with declaration is likely to result in Queensland Rail incurring higher (or lower) administrative and compliance costs compared to the costs that would be incurred in a future without declaration. Ultimately, any such costs are weighed against the benefits of declaration for the purpose of assessing whether declaration will promote the public interest.

Each of the three categories of cost will be discussed below.

Costs incurred by Queensland Rail through the QCA levy

The QCA charges Queensland Rail a fee for providing regulatory services (the QCA levy).[732] This fee includes all costs incurred by the QCA in regulating Queensland Rail, including costs in relation to the access undertaking approval process and ongoing compliance. Importantly, the regulatory regime (including the access undertaking) applies to the whole of the Queensland Rail service (as declared under s. 250(1)(b) of the QCA Act). However, the costs incurred by the QCA in providing regulatory services—as reflected through the QCA levy—are allocated amongst particular types of users, on particular systems, based on a 'beneficiary pays' principle. The QCA approves the QCA levy on an annual basis, following a transparent consultative process with stakeholders.

For 2018–19, the QCA levy is as follows:

- $0.14152 per net tonne for the West Moreton system coal users

[730] Queensland Rail, sub. 33, p. 84, para. 427.

[731] Such as the internal costs of the QCA, which are borne by the QCA itself and are not passed on to Queensland Rail; costs incurred by regulated entities other than Queensland Rail (e.g. as a general guide to the costs of regulation); or costs incurred by access seekers or users in participating in the regulatory process.

[732] Pursuant to s. 245(2) of the *Queensland Competition Authority Act 1997* (Qld), s. 3 of the *Queensland Competition Authority Regulation 2007* (Qld) (repealed 24 August 2018) and since 24 August 2018, s. 3 of the *Queensland Competition Authority Regulation 2018* (Qld).

- $0.07388 per thousand gross tonne kilometres for the Mount Isa Line freight and mineral users
- $0.04416 per thousand gross tonne kilometres for the North Coast Line and West Moreton system freight and mineral users
- $0.01561 per track kilometre for long distance passenger services.[733]

The QCA considers that these are comparatively minor costs.

In any case, under the current and previous access undertakings, Queensland Rail has been permitted, and has in practice, passed the entirety of the QCA levy through to its users. The coal users of the West Moreton system (the South West Producers) and the majority freight and minerals user of the Mount Isa Line (Glencore), who together bear up to 85.7 per cent of the total cost of the QCA levy in 2018–19[734], have both indicated that they are willing to pay for the QCA levy as they see 'real benefits from the [regulatory] regime in advance of the costs incurred'.[735]

Additionally, the QCA notes the NCC took the following position in considering administrative and compliance costs:

> Costs to a service provider that can be compensated for through access charges are unlikely to be relevant to the assessment of the public interest. [736]

To the extent that these costs are passed through to users, this may still be a relevant matter the QCA considers under s. 76(5)(d) (see section 13.7.2).

Costs incurred by Queensland Rail in complying with the regulatory regime

Queensland Rail indicated that it incurs costs in complying with the regulatory regime, including costs in developing access undertakings and costs associated with the capital expenditure approvals process. Queensland Rail maintained that these costs are higher for the West Moreton system (compared to its other systems), because the West Moreton system is subject to more detailed regulation via the development and approval of reference tariffs for coal services.[737]

Queensland Rail did not provide estimates of the amount of the costs it incurs internally in complying with the regulatory regime. As such, the QCA is unable to form a view on the quantum of these costs.

Costs incurred by Queensland Rail in dealing with multiple users of its service

Queensland Rail indicated that it is likely to continue to provide third party access to its network in a future without declaration (for example, through its access framework).[738] The QCA considers that the Queensland Rail network is likely to be a multi-user system in a future with or without declaration, particularly as Queensland Rail is a state-owned entity and is not vertically integrated with respect to freight services. Administration and compliance costs in managing a

[733] Queensland Competition Authority, *Queensland Rail's 2018–19 QCA levy proposal*, final decision, 2018, https://www.qca.org.au/wp-content/uploads/2019/05/34374_QCA-Final-decision-notice-QR-Levy-1.pdf. The 2018–19 figures have been used as the 2019–2020 QCA levy process was ongoing at the time of writing.
[734] Queensland Competition Authority, *Queensland Rail's 2018–19 QCA levy proposal*, final decision, 2018, p. 2.
[735] South West Producers, sub. 40, p. 48; Glencore, sub. 41, p. 29.
[736] National Competition Council, *Declaration of Services: A guide to declaration of services under Part IIIA of the Competition and Consumer Act 2010 (Cth)*, Melbourne, 2018, pp. 44–45, para. 6.17.
[737] Queensland Rail, sub. 33, p. 85, para. 430.
[738] Queensland Rail, sub. 33, p. 39, para. 193.

multi-user system will therefore likely exist in the foreseeable future with or without declaration. The nature and extent of these costs will vary depending on the number of users, the volume of traffic and the associated complexity in coordinating and managing operations.

The QCA has concluded that in a future with declaration, declaration will promote a material increase in competition in various markets dependent on Queensland Rail's service. As such, it may be that declaration promotes additional access seekers of Queensland Rail's service, and increases Queensland Rail's administration costs. However, this cost must be balanced against the benefits, including the benefits of competition in those dependent markets generally.

Queensland Rail submitted that in a future without declaration, its access framework is 'substantially the same' as its approved 2016 access undertaking.[739] It did not discuss the level of costs it expects to incur under its access framework. The QCA considers that it may be expected that some of the costs incurred by Queensland Rail associated with administering, managing and complying with its access framework in a future without declaration will be similar to the costs Queensland Rail incurs in a future with declaration. This is because, in either scenario, Queensland Rail will need to consider access applications, negotiate access agreements and resolve disputes with its users, among the many other activities associated with providing a multi-user network service.

13.6.3 Consideration of the service as a whole and particular parts of the service

Given that the regulatory regime (including the access undertaking) applies to the whole of the Queensland Rail service (as declared under s. 250(1)(b) of the QCA Act), it is difficult to precisely attribute the various costs discussed above to either the service as a whole or particular part(s) of the service. As such, the QCA has undertaken a broad consideration of the administrative and compliance costs that would be incurred by Queensland Rail if the service were declared, except for where stakeholders have addressed particular parts of the service, which are considered below.

West Moreton Route service

Queensland Rail stated that 'the West Moreton System is subject to the most intrusive form of regulation and incurs the largest regulatory costs of Queensland Rail's eight systems'.[740] These costs include costs related to the development of the West Moreton system reference tariffs and capital expenditure approval processes. Queensland Rail described the areas in which additional costs are incurred but did not provide any estimate of its internal costs in relation to the regulation of the West Moreton system.[741]

The approved reference tariff for coal users on the West Moreton system and Metropolitan system includes a component reflecting Queensland Rail's operating expenses, which include Queensland Rail's internal 'corporate overhead' costs in complying with the regulatory regime. This means that for coal services on the West Moreton Route, the costs incurred by Queensland Rail internally in complying with the regulatory regime are recovered from coal users through the access charges. It remains possible that Queensland Rail is still bearing some costs that have not been passed on to users; however, the QCA has no information to confirm if this is the case and, if so, what the quantum of those costs are (or are expected to be in future).

The South West Producers said:

[739] Queensland Rail, sub. 33, p. 44, para. 210.
[740] Queensland Rail, sub. 33, p. 85, para. 430.
[741] Queensland Rail, sub. 33, pp. 85–86, paras 430–433.

> [C]ustomers [coal users of the West Moreton System] bear their own costs of the regulatory process, and the prudent expenditure by QR on the regulatory process which is taken into account in the prices set by the QCA. Accordingly, if the customers effectively bear all of the costs arising from regulation and are still supportive of declaration continuing, it must be that the reasonable terms and conditions of access arising from declaration promote the public interest.[742]

This highlights that ultimately, in assessing whether declaration will promote the public interest the costs of declaration must be weighed against the benefits, which occurs by having regard to the various limbs of s. 76(5) of the QCA Act.

For completeness, the QCA has also considered non-coal users (e.g. agriculture) of the West Moreton Route service. The QCA understands that the volumes of non-coal services are seasonal and minor compared to the coal access services. In this respect, Queensland Rail has previously requested (and the QCA has approved) that freight, minerals and long distance passenger services on the West Moreton system attract a weighting that is significantly less than that of West Moreton coal traffic for the purposes of allocating the QCA levy.[743] While these services are covered by the existing declaration and access regime, Queensland Rail has previously indicated that it does not consider that it incurs significant QCA-related costs for these services. Therefore, the costs incurred by Queensland Rail in relation to these services are likely to be very minor.

South Western, Western, Central Western Route services and the Tablelands system service

Currently, the QCA does not approve reference tariffs for the South Western, Western or Central Western Route services, nor the Tablelands system service. Under the 2016 access undertaking, access charges for users of these services are negotiated directly between the users and Queensland Rail under the existing regulatory framework.

Freight users of the South Western, Western or Central Western systems were not required to contribute to the QCA levy in 2018–19, and have historically not been required to contribute to the QCA levy.[744]

Queensland Rail did not provide any estimates of the costs that it incurs internally in dealing with the QCA in relation to the South Western, Western or Central Western Route services and the Tablelands system service, and there are no publicly available data on such costs. There is also no information on the interaction of such costs with the TSC subsidies that Queensland Rail would receive for below-rail services provided on these systems. As such, the QCA is unable to form a view on the quantum of these costs.

The QCA does not expect that the costs incurred in dealing with multiple users of these services will be materially different in a future with declaration, compared to a future without declaration.

13.6.4 Conclusions

With regard to the QCA levy, under the current and previous access undertakings, Queensland Rail has been permitted to pass the entirety of the QCA levy on to its users, and it has done so in practice. Consistent with the approach applied by the NCC, to the extent that the QCA levy

[742] South West Producers, sub. 16, p. 29.
[743] Queensland Rail, *2017–18 Queensland Competition Authority Levy, Queensland Rail Access Undertaking 1*, January 2018, https://www.qca.org.au/wp-content/uploads/2019/06/32627_queensland-rail-2017-18-qca-levy-report.pdf.
[744] Queensland Competition Authority, *Queensland Rail's 2018–19 QCA levy proposal*, final decision, 2018.

continues in effect to be borne by the users of the Queensland Rail service, the QCA considers that the cost burden of the QCA levy on Queensland Rail is relatively minor. However, the costs borne by access seekers and holders may still be a relevant matter for the QCA to consider under s. 76(5)(d) (see section 13.7.2).

With regard to costs incurred by Queensland Rail in complying with the regulatory regime, Queensland Rail has not provided any estimates of these costs—for example, the additional costs it considers are associated with the regulation of the West Moreton system. The extent to which these costs are passed through to users via access charges is also not known, although for the West Moreton system, at least some of these costs are expected to be included in the approved operating expenditure allowance. The South West Producers and Glencore have indicated their willingness to continue to bear the costs associated with declaration (including their own costs as well as any costs passed through by Queensland Rail), which reflects their view that the benefits of declaration outweigh the costs.

With regard to costs incurred by Queensland Rail in dealing with multiple users of the service, Queensland Rail's stated intent is for its access framework to mirror the 2016 access undertaking. It is therefore reasonable to expect that at least some of the costs it currently incurs in managing the various processes—in dealing with multiple users of the service—will still be incurred in a future without declaration. The QCA does not expect that the costs of dealing with multiple users will be materially different in a future with or without declaration.

In conclusion, the QCA considers that Queensland Rail could be expected to incur additional administrative and compliance costs if the service were declared, compared to a future without declaration. However, the QCA notes that currently many of these costs (for example, the QCA levy) are ultimately borne by the users of the service, rather than by Queensland Rail itself.

Ultimately, these administrative and compliance costs are considered against the benefits of declaration, for the purpose of assessing whether declaration will promote the public interest.

13.7 Other relevant matters

13.7.1 Matters to be considered

There are a number of other matters that the QCA considers are relevant to the assessment of criterion (d) under s. 76(5)(d), including:

- costs of regulation that are borne by access seekers and holders
- economic and regional development issues, including employment and growth
- environmental and safety issues.

Stakeholder submissions

Queensland Rail considered that in addition to environmental and safety considerations, the following matters were also relevant to the QCA's assessment:

- the appropriateness of alternative regulatory arrangements applying in the future without declaration
- the extent to which private benefits resulting from declaration accrue to foreign owned entities.[745] It argued that this has been extensively applied by the Federal Court and

[745] Queensland Rail, sub. 33, p. 76, para. 398.

> Australian Competition Tribunal when applying the net public benefit test in assessing authorisation applications under the *Competition and Consumer Act 2010* (CCA).[746]

Queensland Rail also maintained that any costs savings or other benefits accruing to it in the absence of declaration should be considered a public benefit, because it is 'a statutory entity under Government direction'.[747]

Glencore disagreed with Queensland Rail's claims that private benefits flowing to foreign owned companies should be discounted.[748] It argued that Glencore pays taxes to the Commonwealth Government and royalties to the State Government, employs people in its Australian operations and invests in regional communities. It is therefore not appropriate to discount public benefits based on an element of foreign ownership.

QCA analysis

The QCA considers that Queensland Rail was referring to its access framework when mentioning 'alternative regulatory arrangements' applying in the future without declaration, which the QCA should have regard to. The presence of the access framework is relevant in attempting to predict the environment in a future without declaration. The QCA has had regard to Queensland Rail's access framework in assessing criteria (a) and (d).

In relation to Queensland Rail's comments about excluding private benefits to foreign owned companies, the assessment of authorisation applications under the CCA has quite a different purpose and context. For example, the *Qantas Airways* decision to which Queensland Rail referred[749] involved an authorisation application for a strategic alliance between Qantas and a foreign entity (Air New Zealand). Also, the ACCC makes no reference in its 2019 *Guidelines for the Authorisation of Conduct (Non-Merger)* to excluding benefits flowing to foreign owned companies in assessing public benefits.[750]

In the QCA's view, in assessing an authorisation application between two businesses, one of which is domiciled overseas, the benefits that accrue to the Australian public as opposed to overseas beneficiaries will be a more relevant consideration. However, the declaration of a service for third party access is quite a different situation. This assessment does not look to identify and assess specific benefits flowing to one or more individual supply chain participants. Not only will different benefits accrue to different participants, but the number and identity of the relevant participants will change over the declaration period. In effect, such a company-by-company assessment would be necessary if the QCA were to somehow 'carve out' private benefits accruing to foreign companies as Queensland Rail is proposing. Such an approach is not feasible and is not appropriate, given the requirements of the QCA Act.

The QCA considers that in this context, the fact that some access seekers or holders of the Queensland Rail service may be owned by foreign entities is of limited relevance in assessing the public benefit (and costs) from declaration under criterion (d).

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[746] Queensland Rail, sub. 33, p. 89, para. 446.
[747] Queensland Rail, sub. 33, p. 89, para. 447.
[748] Glencore, sub. 41, p. 30.
[749] *Qantas Airways Limited* [2004] ACompT 9; Queensland Rail, sub. 33, p. 89, para. 446.
[750] Australian Competition and Consumer Commission, *Guidelines for the Authorisation of Conduct (Non-Merger)*, Commonwealth of Australia, March 2019.

13.7.2 Costs borne by access seekers and holders

Stakeholder submissions

The South West Producers expressed concerns that the costs to access seekers and holders will increase in the absence of declaration because costly and protracted negotiations are more likely.[751] The South West Producers discussed negotiation costs:

> [D]eclaration has also provided an important role in reducing the costs of negotiation ... A standard access agreement and independently determined efficient pricing [under the current declaration] reduces the barriers to obtaining access, saves all parties (including QR) costs that would be otherwise associated with a drawn out negotiation.[752]

The South West Producers considered that the costs of the QCA's processes are likely to be significantly less than the costs that will be incurred by users if they need to rely on formal court dispute processes, including to prevent Queensland Rail from amending or breaching its access framework.

> In respect of disputes regarding the access charge, the costs of those protracted arbitrations are very likely to result in users that are unable to fund such lengthy processes to settle early at a higher price, compared to users with deeper pockets that may have more ability to fund those disputes.[753]

The South West Producers highlighted the QCA's information gathering powers under the QCA Act, which will not be available in the absence of declaration, leaving users to engage in processes such as requests under the *Right to Information Act 2009* (Qld), with no assurance that this will be successful. Glencore made similar comments, and added:

> QR has never answered the QCA's questions about how an Access Framework that is (on QR's view) supposed to produce a 'QCA like result' will reduce costs in the way that QR alleges.[754]

Watco commented that rail operators and customers bear their own costs of regulatory processes, while Queensland Rail's costs are reflected in approved access charges.[755] It considered that the costs of administering the regulatory regime are small, compared to the benefits. Glencore also referred to users' willingness to pay, for the sake of the benefits of regulation:

> The point also remains that if users, including Glencore, are willing to pay for the QCA levy and their costs of the regulatory system, they must see real benefits from the regime in advance of the costs incurred, and any remaining costs incurred by QR itself must be relatively minimal.[756]

QCA analysis

As noted previously, at least some of the costs incurred by Queensland Rail due to regulation by the QCA are passed through to access holders via access charges. This includes the QCA levy, and in the case of the West Moreton system, an allowance for Queensland Rail's operating expenditure, which is reflected in the reference tariff. Most of Queensland Rail's users who made submissions considered that the benefits of declaration outweigh the costs that they (the

[751] South West Producers, sub. 31, pp. 21–22.
[752] South West Producers, sub. 4, p. 53.
[753] South West Producers, sub. 40, p. 48.
[754] Glencore, sub. 41, p. 30.
[755] Watco, sub. 48, p. 6.
[756] Glencore, sub. 41, p. 29.

access users/seekers) are required to bear, and none suggested that these costs are excessive.[757]

Access seekers and holders bear their own costs in negotiating access with Queensland Rail and will continue to do so in a future with or future without declaration. Some stakeholders viewed that these costs would be higher in a future without declaration, as access seekers and holders could face more protracted and costly negotiation processes, and that in particular, the costs associated with disputes could be material.[758] The South West Producers noted that transactional costs may be an issue for smaller access seekers, who may end up settling disputes or negotiations early at a higher price, which also increases their costs and could reduce their competitiveness.[759]

The QCA considers that to the extent that a standard access agreement continues to be approved by the QCA in a future with declaration, this has the potential to reduce administrative costs for access seekers and users (as well as Queensland Rail), by introducing a transparent standard 'starting position' for all parties to commence negotiations for access. This is because standard terms can avoid the need for new bespoke access agreements to be negotiated for each individual access request, and can help minimise the scope for access disputes and the costs associated with dispute resolution.

On balance, based on the material before it, the QCA considers that in a future with declaration, access seekers and holders are likely to incur administrative and compliance costs associated with the regulatory regime. However, these costs must be balanced against the benefits of the regulatory regime. Some costs in particular, such as the costs of negotiating access, are likely to be lower for access seekers and holders in a future with declaration, due to the availability of public information, and of documents with terms approved by the QCA (such documents include the access undertaking and the standard access agreement). This information that is available reduces to some degree the transactional costs associated with negotiating access, and sets a common 'starting point' for such negotiations to commence.

13.7.3 General economic issues, including employment and regional development

To the extent that declaration will promote competition in one or more dependent markets, this should promote increased efficiency and investment, compared to a future without declaration. This in turn will result in additional economic benefits, for example, increased employment and regional development. If competition is promoted, more new competitors may enter dependent markets—therefore, declaration may also increase the revenue that Queensland Rail will recover via access charges, which may reduce its reliance on TSC funding from the Queensland Government.

While the incremental benefit cannot be estimated with any certainty, the QCA considers that declaration is likely to result in net economic benefits in the regions serviced by the Queensland Rail service, to the extent that declaration promotes competition and investment in markets and regions dependent on the Queensland Rail service.

[757] See for example, Pacific National, sub. 37, p. 16; South West Producers, sub. 40, p. 48; Glencore, sub. 41, p. 29; Watco, sub. 48, p. 6; Linfox, sub. 50, para. 3.12; GrainCorp, sub. 52, p. 14.
[758] See for example, South West Producers, sub. 40, p. 48; Glencore, sub. 41, p. 30.
[759] South West Producers, sub. 40, p. 48.

Stakeholder submissions

Queensland Rail argued that declaration 'does not result in any economic benefits which would not otherwise be promoted without declaration'.[760]

Glencore also submitted that declaration has promoted mining investments in the North West Queensland region, which has in turn brought broader public benefits to the North West Queensland regional economy in terms of employment and contribution to regional businesses and development.[761] Glencore submitted data from the Queensland Resources Council (QRC) that showed that in 2016–17 the resources sector in the North West Queensland region paid approximately $397 million to 2,709 full-time employees, spent approximately $354 million to the benefit of local businesses and community organisations, and contributed approximately $1.3 billion in gross regional product, which was 19 per cent of North West Queensland's total gross regional product.[762] Glencore argued that such benefits arose directly as a result of the declaration of the Queensland Rail Network, including the Mount Isa Line.[763] However, it did not address how these benefits might be affected in a future with and without declaration.

In the context of the West Moreton system, the South West Producers agreed with the QCA's views in the draft recommendation that declaration promotes investment in regional markets, producing flow-on effects for employment and regional development:

> While, the South West Producers acknowledge that it could be argued that employment and regional development would still occur to some extent in the absence of declaration, they firmly believe that declaration provides additional employment and regional development. That is particularly clear at this point given the investment decisions in the coal industry and rail haulage industry that are to be made in the near future, and which are far less likely to be positive in the absence of declaration.[764]

The South West Producers quoted QRC data showing that in 2016–17 the resources sector in the West Moreton region paid approximately $30 million in wages to 263 full-time employees, spent approximately $7 million to the benefit of local businesses and community organisations, and contributed approximately $70 million in gross regional product, which formed 2 per cent of the West Moreton region's total gross regional product.[765]

The South West Producers further argued that there are 'material public benefits to State financiers from declaration', saying 'that a rail line that either largely or wholly supports itself through commercial activities is preferable to one the State is required to heavily subsidise'. They contended that a reduction in coal volumes will increase the funding burden on the state (due to a proportional decrease in access charges received) and the effects will be compounded by the reduction in coal royalties.[766]

Linfox argued that a reliable and cost competitive rail service on the Central West system is 'critical' to the economic development of this region.[767] It cited a Member of the Queensland Parliament in 2018 who stated in response to Aurizon's potential cessation of its Central West intermodal operations (prior to Linfox's acquisition) that 'closing this rail freight service will

[760] Queensland Rail, sub. 33, p. 75, para. 391.1.
[761] Glencore, sub. 8, pp. 18–19.
[762] Glencore, sub. 8, p. 17.
[763] Glencore, sub. 8, p. 19.
[764] South West Producers, sub. 31, p. 22.
[765] South West Producers, sub. 4, p. 49.
[766] South West Producers, sub. 31, p. 22.
[767] Linfox, sub. 50, p. 3.

cripple western Queensland', noting in particular that rail transport allows for the safe transport of goods classified as hazardous and dangerous into the region.[768]

QCA analysis

Employment and regional development

Glencore (Mount Isa Line), the South West Producers (West Moreton system) and Linfox (agricultural systems) commented on the economic benefits that are currently generated in each region. Economic benefits could also be expected to be generated based on the firms and industries that use the North Coast Line to transport inputs and outputs. The Kuranda Scenic Railway and other tourism services on the Tablelands system also contribute to the tourism economy in North Queensland—in particular, the passengers travelling on the Kuranda Scenic Railway accounted for 55 per cent of all customers travelling on Queensland Rail's regional passenger services in 2017–18.

However, the information stakeholders provided generally focuses on the *total* economic benefits delivered in the region. No estimates were provided of how much of this benefit would be foregone in the absence of declaration, or how much *additional* output and investment declaration may promote. These additional benefits in employment and regional development are difficult to quantify.

To the extent that declaration promotes competition and investment in markets and regions dependent on the Queensland Rail service, the QCA considers that declaration is likely to have a net beneficial effect in promoting employment and regional development in those markets and regions.

Finance and public funding

The South West Producers submitted that declaration has facilitated continued investment in the coal industry in the West Moreton region, which 'has relieved some of the financial pressure that would otherwise sit with the state government to fund maintenance of the West Moreton [system] solely for the purpose of passenger, livestock, grain and other freight services'.[769] The South West Producers also considered that in the absence of declaration, the uncertainty of pricing and other terms of access may 'push coal users out of the market for the service', or reduce their demand for the service, such that 'a far greater proportion of the costs of operating and maintenance of the West Moreton corridor infrastructure would fall onto other sectors or directly on the government'.[770]

All Queensland Rail's systems with the exception of the Mount Isa Line receive TSC subsidies (see section 8.4.3), which the QCA understands are provided to meet the cost of the supply of the below-rail service. That is, where Queensland Rail cannot fully recover the cost of providing the below-rail service from the access charges[771], the TSC subsidy operates to 'fill the gap' between the amount of access charges received and the cost of providing the service. Therefore, if more access revenue is received on a system, it would be expected that the amount of the TSC subsidy would decrease proportionately.

[768] Linfox, sub. 50, p. 3.
[769] South West Producers, sub. 4, p. 50.
[770] South West Producers, sub. 4, p. 53; South West Producers, sub. 16, pp. 24, 31–32.
[771] The Mount Isa Line is the only Queensland Rail system that is able to operate on a 'commercial basis' and does not receive below-rail TSC payments for its operation.

Queensland Rail's 2017–18 below-rail financial statements show the amount of revenue received via subsidies, and the subsidies' proportion of total revenue (Table 12). Queensland Rail does not disaggregate this data for each of its rail systems.

Table 12 Queensland Rail revenue from TSC contracts, 2017–18

West Moreton region	*Mount Isa region*	*North Coast region*	*Rest of network*	*Total below-rail*
$0.743 million (0.61 per cent of all revenue received)	Nil	$152.339 million (75.4 per cent of all revenue received)	$413.632 million (72.52 per cent of all revenue received)	$566.714 million (63.3 per cent of all revenue received)

Source: Queensland Rail, Financial Statements for the Year Ended 30 June 2018, Below Rail Services Provided by Queensland Rail, p. 4, https://www.queenslandrail.com.au/business/acccess/Compliance%20and%20reporting/2017-18%20Below%20Rail%20Financial%20Statements.pdf.

This data shows that with the exception of the West Moreton system and Mount Isa Line, Queensland Rail is highly dependent on TSC revenue to fund its operations. The other primary source of revenue is access charges—the West Moreton system received approximately 96 per cent of its revenue from access charges in 2017–18, while the Mount Isa Line received just over 98 per cent.

As a high proportion of Queensland Rail's costs are fixed, any reduction in revenue from access charges in any system will likely increase its dependence on TSC funding. To the extent that declaration promotes competition and investment in markets and regions dependent on the Queensland Rail service, the QCA considers that declaration may reduce the reliance of Queensland Rail on government subsidies. However, government policies relating to the TSC subsidies are at the discretion of the government, and may change at any time. As such, the QCA considers that declaration is likely to have a neutral effect in terms of finance and public funding issues.

13.7.4 Environmental and safety benefits

Stakeholder submissions

Queensland Rail submitted that 'efficiencies promoting increased competitiveness of rail results in environmental and safety benefits from increased rail modal share'.[772] It noted that stakeholders have argued that increased rail investment results in environmental and safety benefits as a result of shifting volumes from road onto rail.[773] However, the key issue is whether this arises as a result of declaration. Queensland Rail considered that because it is incentivised to promote rail investment, and because of the lower regulatory costs that would arise in the absence of declaration, rail investment and increased modal share will be promoted without declaration.

Pacific National linked declaration to environmental and social benefits:

> [D]eclaration of the QR infrastructure has supported the competitiveness of rail haulage (as against heavy vehicle road transport) on key freight corridors [including the North Coast Line]. This has in turn delivered a number of environmental and social benefits.[774]

[772] Queensland Rail, sub. 8, p. 7, para. 47.
[773] Queensland Rail, sub. 33, p. 88, para. 443.
[774] Pacific National, sub. 9, p. 14.

It gave examples of public benefits of rail:

- Road freight produces 14 times greater accident costs than rail freight per tonne kilometre.
- Road freight produces 16 times as much carbon pollution as rail freight per tonne kilometre.[775]

Pacific National calculated that the public benefit associated with its use of the North Coast Line, in terms of reduced carbon pollution and accident costs, were approximately $17 million in reduced carbon pollution per annum and $15 million in accident costs.[776]

The South West Producers considered that Queensland Rail's arguments regarding the existence of these benefits without declaration reflect Queensland Rail's views about the constraints and incentives it would face.[777] The South West Producers did not consider that these constraints and incentives will be effective without declaration.

Watco disagreed with Queensland Rail's position that access as a result of declaration would not promote the public interest on the Western, Central Western and South Western systems, highlighting the safety and environmental comparisons between road and rail as cited by Pacific National.[778]

GrainCorp highlighted the benefits of transport by rail compared to by road, including reductions in accidents and road congestion, along with reduced fuel usage, which has significant environmental benefits.[779] It estimated that road transport uses almost 250 per cent more fuel than rail over a similar distance. Rail transport also reduces road maintenance costs. It submitted that with the entry of Watco, GrainCorp intends to increase its use of rail to transport grain, which will further enhance these benefits.[780] It attributed these benefits to a stable regulatory framework for below-rail access.

QCA analysis

To the extent that declaration promotes an increase in competition and investment in dependent above-rail markets, the QCA considers that above-rail operators are in turn likely to seek to attract end users to move their freight by rail instead of by road (or other means). This could therefore realise the additional environmental and safety benefits of rail transport, as highlighted by stakeholders, compared to a future without declaration. It is however, difficult to quantify such benefits.

13.8 Conclusions

13.8.1 The service as a whole

The QCA considers that declaration of the Queensland Rail service as a whole (as described in s. 250(1)(b) of the QCA Act) would:

- have a small beneficial effect on investment in facilities

[775] Pacific National, sub. 9, p. 14.
[776] Pacific National, sub. 9, p. 14.
[777] South West Producers, sub. 40, p. 49.
[778] Watco, sub. 48, p. 6.
[779] GrainCorp, sub. 52, p. 14.
[780] GrainCorp, sub. 52, p. 14.

- not have an effect on investment in dependent markets, to the extent that the QCA has been unable to identify a market dependent on the service as a whole, in which the QCA considers that declaration would promote investment
- cause Queensland Rail to incur administrative and compliance costs, although many of these costs are ultimately borne by users of the service.

Having weighed all of the costs and benefits, the QCA considers that there is a marginal net benefit.

Therefore, the QCA considers that access (or increased access) to the Queensland Rail service as a whole, on reasonable terms and conditions, as a result of declaration of the service, would promote the public interest.

13.8.2 North Coast Route service

The QCA considers that declaration of the North Coast Route service would:

- have a small beneficial effect on investment in facilities
- have a beneficial effect on investment in the dependent above-rail haulage market
- cause Queensland Rail to incur administrative and compliance costs, although many of these costs are ultimately borne by users of the service
- result in other small benefits.

Having weighed all of the costs and benefits, the QCA considers that there is a net public benefit.

Therefore, the QCA considers that access (or increased access) to the North Coast Route service on reasonable terms and conditions, as a result of declaration of the service, would promote the public interest.

13.8.3 Mount Isa Route service

The QCA considers that declaration of the Mount Isa Route service would:

- have a small beneficial effect on investment in facilities
- have a beneficial effect on investment in the North West Queensland minerals tenements market
- cause Queensland Rail to incur administrative and compliance costs, although many of these costs are ultimately borne by users of the service
- result in other small benefits.

Having weighed all of the costs and benefits, the QCA considers that there is a net public benefit.

Therefore, the QCA considers that access (or increased access) to the Mount Isa Route service, on reasonable terms and conditions, as a result of declaration of the service, would promote the public interest.

13.8.4 West Moreton Route service

The QCA considers that declaration of the West Moreton Route service would:

- have a small beneficial effect on investment in facilities

- have a beneficial effect on investment in the market for coal tenements in the West Moreton region
- cause Queensland Rail to incur administrative and compliance costs, although many of these costs are ultimately borne by users of the service
- result in other small benefits.

Having weighed all of the costs and benefits, the QCA considers that there is a net public benefit.

Therefore, the QCA considers that access (or increased access) to the West Moreton Route service, on reasonable terms and conditions, as a result of declaration of the service, would promote the public interest.

13.8.5 South Western, Western and Central Western Route services

The QCA considers that declaration of the agricultural systems services would:

- have a small beneficial effect on investment in facilities
- have a beneficial effect on investment in the dependent above-rail haulage markets
- cause Queensland Rail to incur administrative and compliance costs, although the level of these costs attributable to the agricultural systems would be relatively minor
- result in other small benefits.

Having weighed all of the costs and benefits, the QCA considers that there is a net public benefit.

Therefore, the QCA considers that access (or increased access) to each of the South Western Route service, the Western Route service and the Central Western Route service, on reasonable terms and conditions, as a result of declaration of the service, would promote the public interest.

13.8.6 Tablelands system service

The QCA received very limited information on the Tablelands system. The QCA considers that declaration of the Tablelands system services would:

- not have an effect on investment in facilities
- not have an effect on investment in any dependent markets, including the dependent market for above-rail passenger services
- cause Queensland Rail to incur administrative and compliance costs, although the level of these costs attributable to the Tablelands system would be relatively minor.

Having weighed all of the costs and benefits, the QCA considers that there is not a net public benefit.

Therefore, the QCA considers that access (or increased access) to the Tablelands system service, on reasonable terms and conditions, as a result of declaration of the service, would not promote the public interest.

14 DECLARATION PERIOD

The QCA recommends that the following parts of the service be declared for a period of 15 years:

- the North Coast Route service
- the Mount Isa Route service
- the West Moreton Route service
- the Central Western Route service
- the Western Route service
- the South Western Route service.

The QCA is satisfied about all of the access criteria for each part of the service for this period.

The matters to which the QCA has had regard in determining that 15 years is the appropriate period to recommend for declaration are set out in the QCA's analysis of the period for assessing total foreseeable demand for the purpose of criterion (b) (section 11.5).

APPENDIX A: THE HOLD-UP PROBLEM

This appendix elaborates further on the economic rationale for the 'hold-up' problem, which is discussed in the context of Queensland Rail. Specifically, it sets out some basic ideas, examples and ways to think about the issue, including applications to Queensland Rail and its customers.[781] It also includes a case study to provide further insight.

This discussion is not intended to be definitive or exhaustive, as there is a large literature in economics that addresses different aspects of the hold-up problem. Relevant references have been provided for further reading.

Overview

'Hold-up' is an economic problem that occurs where the value of an economic agent's relationship-specific investment is potentially appropriable by that agent's trading partner(s). Relationship-specific investments are, by definition, particular to a given business relationship. For example, a supplier's purchase of specialised equipment or machinery to produce inputs specific to a buyer represents a relationship-specific investment.

A relevant feature of this type of investment is that, once made (sunk), its value in alternative uses is lower than its value in the current trading relationship. Further, the more specific the assets are to the current relationship, the more difficult it becomes for the investor to redeploy them to other uses. As a result, exit from the relationship is costly.

Accordingly, at the time of the initial investment decision, both parties have an incentive to make the relationship 'work'. However, once the investment is made (i.e. costs are sunk), the incentives of the parties change. This is because the gains from trade are only realised *after* the initial investment occurs.[782] As such, the parties have an incentive post-investment to behave strategically—should an opportunity arise—in order to appropriate a greater share of the gains from trade. The risk of this type of opportunistic behaviour is known as the *hold-up problem*.[783]

Given the potential for hold-up, the parties have an incentive, at the time of investment, to solve this dynamic problem, typically by committing to a contract prior to the investment that defines the terms and conditions of exchange.[784] However, for reasons discussed later in this appendix, contracts are not always successful in resolving the hold-up problem, particularly when the initial investment is in an asset with a long expected life.[785]

This economic problem has several possible implications for efficiency. If a party perceives—at the time of making its investment decision—that it will not receive its expected return after the investment, that party will not have the incentive to choose an efficient level of investment in the first place. Specifically,

[781] The QCA uses 'customer' and 'user' interchangeably.

[782] Specifically, the basic timing of events is that i) parties make the required investments; ii) the good or service is produced; and iii) the gains from trade are realised and divided.

[783] Goldberg, V, 'Regulation and administered contracts', *The Bell Journal of Economics*, vol. 7, no. 2, 1976, pp. 439–440. For an extensive discussion of the hold-up problem, see Williamson, O, *The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting*, 1985.

[784] Without a contract, investment in these circumstances will generally not be efficient. See Grout, P, 'Investment and wages in the absence of binding contracts: a Nash bargaining approach', *Econometrica*, vol. 52, no. 2, 1984, pp. 449–460.

[785] In this case, the actual 'hold-up' could take the form of a forced renegotiation of the original contract or court enforcement of an imperfect contract.

the investor might delay, or reduce, its level of investment, even though the economic benefits of the investment—relative to its economic costs—indicate that it should proceed at a certain level and timing. For example, a prospective market entrant might decide not to enter an industry, even though the social benefits of entry exceed the social costs.

The investor might also expend substantial resources ex ante in trying to protect the potential investment from ex post appropriation—this activity itself can be inefficient, as the cost of protecting the investment involves the use of real resources. For example, an investor might spend excessive time and effort trying to write a 'complete' contract to protect its investment (discussed further below).[786]

As a result, relationship-specific investments can also have implications for the organisation of transactions in supply relationships. When investments are highly specific and uncertainty is high, contracting can be very costly and/or complex. In these circumstances, it might be more efficient for the transacting parties to internalise the transaction via vertical integration.[787]

Why does hold-up occur?

Investment 'hold-up' cannot be ascribed to any single reason. Rather, it is the presence and interplay of several economic factors that play a role in creating a hold-up opportunity. Klein suggests three economic pre-conditions are required for hold-up:

- asset specificity
- incomplete contracts
- incentives for wealth maximisation.[788]

Asset specificity

Asset specificity refers to the extent to which an investment is specific to a particular transaction, such that the opportunity cost of the investment is significantly lower. In general, economic exchange between two transacting parties requires them to make some investment in either assets or information that are specific to their business relationship. The more specific the asset or information is to the relationship, the more this feature 'locks in' the parties to the particular relationship—it becomes more costly to switch trading partners. In contrast, the less specific the assets, the stronger is the investing party's option to exit the relationship, given the prospect of hold-up.

One way to measure asset specificity is with reference to the aggregate level of *quasi-rents* created by investment. For the purpose of this discussion, the quasi-rents associated with a specific investment in a project can be defined as simply the difference between the value of an asset in its present use and its value in its next best alternative use (i.e. its opportunity cost). As an investment becomes increasingly specific to the relationship, its 'go-alone' value is likely to decrease, as it has little value in alternative uses. Therefore, as specificity increases, the quasi-rents increase, all else equal.

Types of asset specificity

There are four common types of asset specificity:[789]

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[786] Holmstrom, B & Roberts, J, 'The boundaries of the firm revisited', *Journal of Economic Perspectives*, vol. 12, no. 4, 1998, p. 74.

[787] Vertical integration does not always solve the hold-up problem. One view is that contracting within a firm can be as difficult as contracting between firms, because vertical integration changes ownership and, therefore, the allocation of residual rights of control. See Grossman, S & Hart, O, 'The costs and benefits of ownership: a theory of vertical and lateral integration', *Journal of Political Economy*, vol. 94, 1986, pp. 691–719.

[788] Klein, B, 'The hold-up problem', in P Newman (ed.), *The New Palgrave Dictionary of Economics and the Law*, vol. 2, 1998, pp. 241–244.

- *Physical asset specificity*—one or both parties to a transaction make investments in machinery or equipment that involve design features specific to the relationship and which have lower values in alternative uses.

  For example, boilers in a coal-burning electricity plant can achieve greater efficiency if they are designed for a specific type of coal; however, they are less efficient if they burn coal with a different heat, sulphur, moisture, or chemical content.

- *Site specificity*—investments in productive assets are made in close physical proximity to each other in order to reduce inventory, transportation and processing costs.

  For example, a utility constructs a 'mine-mouth' electricity plant adjacent to several mines and anticipates obtaining all coal supplies for the plant directly from these mines.[790]

- *Human-asset specificity*—refers to the accumulation of knowledge, training and/or expertise that is specific to one trading partner.

  For example, the design and development of a new automobile is complex and time-intensive, involving very close collaboration between the automobile company and its parts suppliers; these suppliers acquire specific knowledge about the production of the components.[791]

- *Dedicated assets*—investments are made in general capital to meet the demands of a particular buyer; the assets are not specific to the buyer, but if the buyer decides not to purchase, the input supplier would have substantial excess capacity.

  For example, NutraSweet was the largest producer of the artificial sweetener, aspartame, with a worldwide market share of close to 95 per cent; as the largest buyers of its product were soft drink manufacturers—Coca-Cola and Pepsi—NutraSweet's investment in aspartame capacity was a dedicated asset.

Queensland Rail declaration review

The two most relevant types of asset specificity in the Queensland Rail declaration review are site specificity and physical asset specificity.

Site-specific investments typically involve costs for large, sunk assets that have low, or no, value in alternative uses.[792] Site-specific assets are typically highly immobile and therefore cannot be readily redeployed to alternative tasks. As a result of these features, asset specificity for site-specific assets is likely to be high.

A number of examples of site specificity are relevant for the current review. The sunk assets associated with existing investments include rail infrastructure and mine-related development.[793] Most rail infrastructure, such as track and tunnels, is largely fixed (i.e. in situ); once put in place, the infrastructure cannot be redeployed. Likewise, above-rail assets can also be specific assets, such as rollingstock configured for the specific gauge or axle loads of the specific track it is designed to run on.

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[789] Williamson, O, *The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting*, 1985.

[790] Joskow, P 'Vertical integration and long-term contracts: the case of coal-burning electric generating plants', *Journal of Law, Economics & Organization*, vol. 1, no. 1, 1985, pp. 33–80.

[791] Montevarde, K & Teece, D, 'Supplier switching costs and vertical integration in the automobile industry', *Bell Journal of Economics*, vol. 13, no. 1, 1982, pp. 206–213.

[792] Large, site-specific infrastructure assets could have an opportunity cost if their salvage value is positive. Of course, if the cost of salvaging (or scrapping) the asset outweighs its potential salvage value, then a firm would not salvage it.

[793] The potential, but not yet, incurred (sunk) expenditures associated with future investment in mining and above-rail operations are also relevant.

The underlying value of a mining development, once established, resides in its potential output. While mining equipment and machinery might be transferable, these assets are secondary to the primary asset, the mine itself.

While the investments in mine development and rail network development might not have occurred contemporaneously as part of the same ex ante decision, the two sets of investments over time have become effectively 'locked in' to each other, as rail transport in most cases is the most financially viable option for network customers to transport coal and minerals to their destinations.

Other assets related to the network have an element of physical asset specificity. For instance, Queensland Rail's network uses narrow gauge track, which differs from the gauge of track in other Australian states. This characteristic means that a potential entrant (i.e. a prospective above-rail operator) from outside Queensland would have to incur costs in procuring rollingstock exclusively for use on narrow gauge track. Investment costs of buying rollingstock for this purpose represent a type of physical asset specificity because they reduce the transferability, and hence value, of such assets in other uses.

Contracting

Incompleteness

The economics literature on contract theory demonstrates that, in the absence of a credible ex ante contract, a firm would not have a sufficient incentive to invest in a relationship-specific project due to the prospect of hold-up by the other party.[794] Accordingly, contracts are fundamental instruments for addressing performance.

In relationships with large, specific investments (i.e. high asset specificity), contracts are arguably even more important. A primary purpose of a contract is to establish an agreement ex ante—before the relationship-specific investment is made—that specifies the terms of exchange, including the ex post distribution of the investment value between the parties. A relevant question is why a contract does not always protect parties from hold-up. After all, a contract specifying the terms of trade and subject to court enforcement would seem prima facie sufficient.[795]

As uncertainty is prevalent, writing a 'complete' contract is prohibitively costly.[796,797] Complete contractual specification would require expansive 'search and discovery' of all relevant contingencies and incur costs for negotiating with the transacting party about the distribution of value for each contingency (as well as agreement on non-price terms and conditions). Given the very low probability of most contingencies, complete contractual specification would not be cost-effective.

Contract structure

Investments in essential infrastructure tend to be highly asset-specific, because fixed and sunk costs are large. Transaction cost economics suggests that, all else equal, increasing asset specificity is positively

[794] In particular, it can be shown that no efficient bargaining process exists i) if both project value and costs are private information; ii) if gains from trade do not arise with certainty; and iii) as long as the parties are free not to trade (i.e. they can 'walk away' with no loss). See Myerson, R & Satterthwaite, M, 'Efficient mechanisms for bilateral trading', *Journal of Economic Theory*, vol. 29, 1983, pp. 265–281.

[795] While contracts are significantly helpful in addressing performance, including the hold-up problem, they are nonetheless imperfect. The efficiency of contracts generally requires i) perfect information; ii) no transactions costs; and iii) the absence of externalities toward third parties. See Tirole, J, *The Theory of Industrial Organization*, 1988.

[796] If a contract is 'complete', then it will never require revision, and enforcement is always possible. In particular, the contract specifies all possible contingencies. As a complete contract contains no gaps or missing contingencies, it would perfectly govern the exchange between parties as circumstances unfolded over time.

[797] Transactional costs of writing a contract include i) writing the contract in sufficiently precise terms such that it can be understood as intended by a court of law; ii) monitoring; and iii) enforcement.

correlated with the use of long-term contracts.[798] If an investment is long-term and specific (i.e. its value in alternative uses is low) then both parties want long-term assurances of their potential gains from the relationship prior to committing the investments. Accordingly, long-term contracts frequently characterise these types of situations.[799]

However, it is likely that there will be a number of uncertainties—factors that cannot be adequately anticipated or measured—at the time of investment, and their resolution will not occur until after the investment. This possibility suggests that a contract should be sufficiently flexible so that adjustments can occur after the investment in order to accommodate realisations of uncertainty. The expected costs of ex post adjustments in such circumstances could be less than the expected losses from a rigid contract.[800]

Therefore, there is a trade-off between mitigating opportunistic behaviour and flexibility. Inflexible pricing in long-term contracts can be hazardous in the face of uncertainty, and long-term prospects, by their nature, face the most uncertainty.[801] For instance, uncertainty about demand and supply conditions 10 years from today is greater than uncertainty about such conditions one year from today—uncertainty grows with time. As a result, long-term contracts require some flexibility despite concerns with opportunism. Accordingly, most long-term contracts contain some form of provision for price adjustment.[802]

Methods of price adjustment typically take one of two forms: redetermination provisions or renegotiation provisions. Redetermination provisions establish prices via formulae. They might reference an explicit, predefined schedule of prices ('definite escalator') or relate contract prices to market conditions as those conditions unfold ('indefinite escalator').[803] Renegotiation provides substantial flexibility as it enables the parties to take into account a full range of information before agreeing on an adjusted price. At the same time, renegotiation provides greater scope for strategic behaviour (discussed below).

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[798] Williamson, O, 'Transaction costs economics: the governance of contractual relations', *Journal of Law and Economics*, vol. 22, no. 2, 1979, pp. 241–242. Modern transaction cost economics originates with Williamson. Williamson's work (especially his later work) focuses on the idea that if one can characterise transactions using key attributes (e.g. frequency of transaction, uncertainty and asset specificity), then any transaction can be 'mapped' into an efficient institutional arrangement. Williamson suggests that each characteristic has a positive relationship to the need for adopting internal governance. See especially Williamson, O, *The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting*, 1985.

[799] Empirical evidence confirms that asset specificity is an important determinant of vertical relationships, including the use of long-term contracts. Data on the duration of contracts between electric utilities and coal mines in the United States shows that, as asset specificity becomes more important, these contracts reflect longer-term commitments (see Joskow, P, 'Contract duration and relationship-specific investments: empirical evidence from coal markets', *American Economic Review*, vol. 77, no. 1, 1987, pp. 168–185). The same conclusion applies for long-term contracts between natural gas producers and pipelines in the United States (see Crocker, K & Masten, S, 'Efficient adaptation in long-term contracts: take-or-pay provisions for natural gas', *American Economic Review*, vol. 75, no. 5, 1985, pp. 1083–1093).

[800] In addition, an overly rigid contract might not be breached easily or cheaply if there are major, unexpected changes in market conditions (see the General Motors–Fisher Body case study at the end of the appendix).

[801] For example, if there is substantial uncertainty over price and volumes, parties might prefer shorter contracts, all else equal.

[802] Crocker, K & Masten, S 'Pretia ex machina? Price and process in long-term contracts', *Journal of Law and Economics*, vol. 34, no. 1, 1991, pp. 69–99.

[803] For an indefinite escalator, the process remains deterministic, but the formula ties the contract price to a price index or to the price of a relevant input or substitute. Adjustment provisions, such as most-favoured-nation and right-of-first-refusal, relate contract prices to prices from similar transactions or best alternative offers. In this way, these clauses make use of information more closely related to the transaction. See Crocker, K & Masten, S 'Pretia ex machina? Price and process in long-term contracts', *Journal of Law and Economics*, vol. 34, no. 1, 1991, pp. 74–76.

Renegotiation and bargaining power

In the presence of asset specificity, one purpose of a long-term contract is that it avoids the need for frequent renegotiation. Aside from the costs of negotiating mutually acceptable terms, repeated bargaining can dissipate the value of the initial investment and have adverse impacts on efficiency.[804] However, it can also benefit the parties if it means that the re-negotiating leaves no 'surplus on the table'.

Renegotiation provides for the most flexibility in the face of changes in market circumstances, as the negotiations are able to take full advantage of current information. The drawbacks are that renegotiations are typically more costly and that they are prone to strategic behaviour—there is greater temptation to argue about 'how to share the pie'.[805]

Relative bargaining powers are central to negotiations and their outcomes. If a buyer has a maximum willingness to pay (reservation price) of v and a seller has a cost of c such that $v \geq c$, then it is efficient for trade to occur.[806] One way to think of bargaining power is the ability of each party to obtain a final price within this range that is as far from its reservation value as possible. For example, a seller would like to obtain a price $p = v$ but will settle for p such that $v > p \geq c$. Relevantly, bargaining power can also shift the bounds of the bargaining range.[807]

Contracting and reputation

A final consideration about contracts is the interaction between contracting and reputation. Macaulay (1963) reports that relations between firms tend to be more informal than predicted by contract theory. The explanation is that, as contracts are costly to write and enforce, firms view reputation as a substitute for contracting specification. Ultimately, contractual performance is secured by the threat of termination of the relationship by one party.[808]

Economic theory suggests that an effective reputation mechanism requires several conditions to be satisfied:

- Information about the firm's past behaviour must be available to all potential trading partners.
- The firm must have a sufficiently long time horizon.
- The firms must believe in collective punishment and reward (product boycott for example), and there must be a common perception of cooperative vs non-cooperative behaviour.

In the context of monopolies, the effectiveness of a reputation mechanism will likely be weaker, as the mechanism relies on stakeholders punishing the company for 'bad' behaviour. However, in a monopoly situation, the costs of boycotting the monopoly might be too high given there are no real alternatives. As

[804] Macleod, B & Malcomson, J, 'Contract bargaining with symmetric information', *Canadian Journal of Economics*, vol. 28, no. 2, 1995, p. 358.

[805] Goldberg, V & Erickson, J, 'Quantity and price adjustment in long-term contracts: a case study of petroleum coke', *Journal of Law and Economics*, vol. 30, no. 2, 1987, p. 387.

[806] This cost reflects production cost and any other relevant opportunity costs, such as the cost of capital.

[807] There are a number of important factors that can potentially affect bargaining power: i) demand and supply conditions; ii) market concentrations; iii) informational advantages; iv) risk aversion; v) patience; and vi) negotiating tactics. For further details, see Choi, A & Triantis, G, 'The effect of bargaining power on contract design', *Virginia Law Review*, vol. 98, no. 8, 2012, pp. 1675–1678.

[808] Macaulay, S, 'Non-contractual relations in business: a preliminary study', *American Sociological Review*, vol. 28, no. 1, 1963, pp. 55–67.

a consequence, the net benefit of establishing and maintaining a good reputation is likely to be less for a monopoly than for a firm in a non-monopolistic market.[809]

Queensland Rail declaration review

The QCA does not have transparency of commercial-in-confidence contracts between Queensland Rail and its customers. Based on stakeholder submissions, a number of these contracts tend to possess two key features. They are generally longer-term contracts—with a duration of at least five years, and in some cases 10 years. In addition, a number of these contracts contain take-or-pay provisions.

While a number of these contracts are long-term contracts, the lives of the assets are typically longer. Coal mine investments typically have expected economic lives of at least 10 to 30 years. Likewise, above-rail rollingstock typically has an asset life of at least 20 years. For instance, the New Acland Stage 3 coal development in the West Moreton system (and new rollingstock investments) would have longer asset lives than the existing assets. The implication is that a number of these assets will have longer asset lives than the term of a typical take-or-pay contract for rail access and therefore will require renewal (on one or more occasions) in the future.[810]

As a third party, the QCA does not have knowledge of how these renewal negotiations might unfold. However, the QCA considers it likely that removal of the declaration, all else equal, would alter the relative bargaining powers in favour of Queensland Rail. Queensland Rail is the only provider of rail network access. In systems in which rail is the most economically viable transport option, and in systems in which customers have already made sunk investments in reliance on access to the below-rail service, customers have no other alternative. In bargaining parlance, the customer's 'no-agreement' option is very limited.[811,812]

If this bargaining power is substantial (at least relative to a future with declaration), Queensland Rail could potentially obtain advantages over price and non-price terms in negotiations with customers. Queensland Rail may, or may not, choose to exercise this bargaining power (see the next section on opportunism and reputation effects). However, the problem is that it does not seem possible for Queensland Rail to credibly commit, at the current time, to not exercise greater bargaining power in a future without declaration.

While investments by Queensland Rail and its customers are already sunk, there are economic implications for dynamic efficiency. Existing customers or potential market entrants might either delay or forgo new investment. Further, stakeholders might expend considerable time and resources trying to protect their share of investment value. This type of protective activity is potentially wasteful. Finally, actual reapportionment of the present value of the initial investment might raise issues of fairness (although this is not an efficiency issue per se).

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[809] Graafland, JJ & Smid, H, *Reputation, corporate social responsibility and market regulation*, Tilburg University, Netherlands, 2004, available online as Munich Personal RePEc Archive (MPRA) paper no. 2072, posted 18 February 2010, https://mpra.ub.uni-muenchen.de/20772/.

[810] South West Producers, sub. 40, p. 11.

[811] Choi, A & Triantis, G, 'The effect of bargaining power on contract design', *Virginia Law Review*, vol. 98, no. 8, 2012, pp. 1675–1676.

[812] As Pacific National notes, 'since PN must acquire access to the QR infrastructure in order to make use of [PN's] own infrastructure [e.g. rollingstock], we have little choice but to accept the terms dictated by the monopolist. PN cannot credibly make a threat to withdraw from negotiations with QR … consider the credibility of a threat by PN to stop using QR's below-rail infrastructure and redeploy its rolling stock to offer freight services by road – such a threat clearly would not be credible, given the sunk, asset-specific and long-lived nature of PN's investment in rolling stock and other above-rail infrastructure' (Pacific National, sub. 37, p. 10).

Incentives for 'wealth maximisation'

Opportunistic behaviour

The third pre-condition for hold-up relates to the incentive for 'wealth maximisation'. Given a material degree of asset specificity and the incomplete nature of contracts, there will be rents ex post investment that each party in the relationship would like to acquire. An important consideration is determining the conditions under which a party to a transaction is likely to undertake a hold-up to appropriate these rents.

American economist, Oliver Williamson, explains hold-up behaviour by reference to 'opportunism', and defines opportunism as 'self-interest seeking with guile'.[813] Accordingly, Williamson's definition admits a broad range of opportunistic behaviour such as lying, cheating, and deception. Setting aside Williamson's definition, the concept of opportunism can manifest itself in a number of forms, including adverse selection, moral hazard, shirking, incomplete disclosure of information and other forms of strategic behaviour.[814]

While specific assets and contract incompleteness are both prevalent in transactions, hold-up does not always occur. For example, consider investment in designing specialised automobile parts. It is normal practice for Japanese suppliers to make specific investments and retain ownership of the specialised machines. This model would seem to present the manufacturer with an opportunity for hold-up. Once the supplier has made an investment in the machines, the manufacturer could demand a lower price. Alternatively, as the Japanese manufacturers tend to have a small number of suppliers for any particular part, a supplier might be in a position to attempt an opportunistic renegotiation using the threat of withholding supply.[815,816]

Reputational capital (private sanctions)

Given these real-world observations, Klein considers that the 'opportunism' rationale by itself is not a sufficiently complete or satisfactory explanation of hold-up.[817] Klein proposes that transactors are more deliberative and calculating when making a decision about whether to hold up a transacting party. In particular, the benefits from undertaking the hold-up must outweigh the short and long-term costs imposed by the transactor being held up. Klein refers to these costs (collectively) as 'reputational capital' (or a 'private sanction') that the party being held up can impose on the offending party. This reputational capital comprises two primary costs:

- *future losses from termination of the relationship*—given the transaction-specific capital in the relationship, terminating the relationship means the potential loss of the discounted value of the (future) quasi-rents from the investment

[813] Williamson, O, *The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting*, 1985, p. 47.

[814] Some of these problems arise from the fundamental asymmetry of information between transacting parties. Adverse selection ('hidden information') refers to the incentive for an economic agent to hide its true cost profile. Moral hazard ('hidden action') refers to the lack of the incentive for an economic agent to operate or invest efficiently.

[815] Holmstrom, B & Roberts, J, 'The boundaries of the firm revisited', *Journal of Economic Perspectives*, vol. 12, no. 4, 1998, pp. 80–81.

[816] In contrast, the traditional US model typically involves the auto manufacturer owning any physical assets specific to its production needs. This model also extends to include any assets that a supplier to the manufacturer uses in that supplier's factory. For example, the stamping machines used in making a particular automobile part will belong to the automaker, even though the supplier uses the machines in its plant. This business pattern is consistent with hold-up theory, in that the designs are highly specialised and difficult to fully protect in a contract. Accordingly, external contractors are not prepared to enter into such relationship-specific investments (Holmstrom, B & Roberts, J, 'The boundaries of the firm revisited', *Journal of Economic Perspectives*, vol. 12, no. 4, 1998, pp. 80–81).

[817] Klein, B, 'Why hold-ups occur: the self-enforcing range of contractual relationships', *Economic Inquiry*, vol. 34, no. 3, 1996, p. 444–463.

- *future losses from foregone business due to reputational damage*—the transactor perpetrating hold-up will confront higher costs of doing business in the future as potential transacting partners will demand more favourable and explicit contract terms.[818]

Contractual self-enforcement

Essentially, each party to a transaction at a point in time compares the potential hold-up gain from breaching the contract with the reputational capital of the 'held-up' party. Hold-up only occurs if the prospective gain outweighs the losses from the other party imposing its reputational capital in response to the hold-up. However, if the potential gain is less than the reputational capital, then hold-up does not occur.

Importantly, the reputational capital that each party can potentially impose on the other party acts as an implicit bound on the other party's behaviour with respect to the contract. Specifically, as long as circumstances do not move the value of hold-up outside these bounds, a hold-up will not take place (i.e. the value of the reputational capital is greater).

Accordingly, these bounds function as the 'self-enforcing range of the contractual relationship'. This range represents the extent to which market conditions can change without precipitating a hold-up by either party. Put another way, only when changes in market circumstances move the transacting parties outside of this range does the threat of hold-up become credible.[819]

This probabilistic explanation is consistent with real-world observations of both 'hold-up' and 'no hold-up' under similar conditions, namely high asset specificity and incomplete contracts. It is also consistent with the observation that contracts are imperfectly specified, with parties expecting to perform their obligations in a way that is consistent with the *intent* of the contract.[820]

Queensland Rail declaration review

Applying this framework, a key issue is whether a future without declaration is likely to move Queensland Rail and transacting parties outside of the self-enforcement range of their contracts—relative to a future with declaration. In other words, the issue is whether it is more likely, or less likely, that hold-up would occur in a future without declaration.

In a future without declaration, Queensland Rail would likely have greater bargaining power at a renegotiation stage, given that in most cases customers have already made sunk investments in reliance on continued access to the below-rail service, and in many cases access to the network would be the most economically viable means for transporting products to their final destination.[821]

With sufficient bargaining power, Queensland Rail could impose a hold-up on transactors, if it chose to do so. Specifically, it could potentially extract all of the surplus value from a transacting relationship, leaving

[818] Klein, B, Crawford, R & Alchian, A, 'Vertical integration, appropriable rents, and competitive contracting process', *Journal of Law and Economics*, vol. 21, no. 2, 1978, pp. 306–307.

[819] While reputation contributes to 'self-enforcement' of business relationships, transactors are not indifferent to contract terms. This is because a firm's reputational capital is limited. Consequently, firms use contract terms to get 'close' to desired performance and then use their reputational capital to ensure their relationship is 'self-enforcing' over the widest range of future market conditions. As a result, court enforcement and self-enforcement are complementary mechanisms to ensure transactor performance.

[820] Klein, B, 'Why hold-ups occur: the self-enforcing range of contractual relationships', *Economic Inquiry*, vol. 34, no. 3, 1996, p. 449.

[821] While it is possible that other determinants of bargaining power might give users some countervailing power, these effects seem unlikely to be as strong.

the other party marginally committed to remaining in the market. Accordingly, the expected value of hold-up would likely be high relative to its expected value in a future with declaration.[822]

The second consideration relates to transactors' reputational capital. Expected losses from the termination of a relationship (i.e. a user 'quits' the relationship due to hold-up) and the expected losses of potential future business (e.g. a user chooses not to enter the market) determine the value of this reputational capital.

For the Queensland Rail systems, in most cases, it is not a credible threat for users to terminate their relationship with Queensland Rail in the event of hold-up. A threat to terminate would generally not be credible because, with few exceptions, existing users have already made highly specific, sunk investments. For prospective entrants, hold-up could have some reputational implications for their decisions; however, this depends on the availability of public information about Queensland Rail's past behaviour. While there might be some adverse effects for Queensland Rail from undertaking hold-up, it would seem that the net effect would be that reputational capital would be relatively 'small', particularly if current parties have no other economical option but to contract with Queensland Rail.

This qualitative analysis suggests that the expected value from hold-up could be large and that any reputational capital (i.e. private sanction) could be small. This framework suggests that a change from a future with declaration to a future without declaration could increase the probability of moving the parties outside of their self-enforcement range (i.e. hold-up could occur).

Case study: General Motors–Fisher Body[823]

The classic example of hold-up in the economic literature is the General Motors–Fisher Body case.[824] The original production process for automobiles involved individually constructed, open and largely wooden car bodies. General Motors sourced these from independent suppliers. However, by 1919, the production process began to shift toward using closed-metal bodies.

In that year, General Motors and Fisher Body signed a contract for Fisher Body to supply General Motors with the novel, closed-metal automobile bodies. In order to produce the bodies, Fisher Body had to make substantial investments in highly specialised stamping machines that were specific to General Motors.[825]

The transactors attempted to design their contract to address the potential for hold-up in their relationship. To protect Fisher Body's investment in specialised assets, the contract included an exclusive dealing clause that required General Motors to purchase all of its closed-metal automobile bodies from Fisher Body for a period of 10 years—General Motors could not source bodies from any other suppliers during that time.

The contract also protected General Motors from hold-up by Fisher Body. It set the price equal to labour plus transportation costs, plus a 17.6 per cent mark-up to cover capital costs.[826] The contract also contained a most-favoured-nation clause that provided General Motors would not be charged a price higher than Fisher Body charged other customers supplied with similar auto bodies.[827] The outcome of

[822] The extent to which Queensland Rail could appropriate this value would depend on the presence of declaration and the efficacy of regulation (and possibly other factors).
[823] Klein, B, Crawford, R & Alchian, A, 'Vertical integration, appropriable rents, and competitive contracting process', *Journal of Law and Economics*, vol. 21, no. 2, 1978, pp. 297–326.
[824] Queensland Rail's consultant, HoustonKemp, refers to the General Motors–Fisher Body case in its arguments (HoustonKemp 2019, p. 12).
[825] These stamping machines or presses for individual automobile parts are called 'dies'.
[826] The pricing terms likely related to variable, rather than total, cost, as it would have been difficult for Fisher Body to identify the capital and overhead costs attributable only to General Motors (and not to other customers).
[827] Church, J & Ware, R, *Industrial Organization: A Strategic Approach*, 2000, p. 78.

the agreement was a long-term cost-plus contract intended to address the potential for hold-up by either party following Fisher Body's initial investment.

All three pre-conditions for hold-up were present in this case. First, the specialised stamping machines designed by Fisher Body were highly specific to General Motors. The machines could not be easily used to make bodies for any other car manufacturer. As such, these machines represented a type of physical asset specificity. The fact that the investment was highly specific to its relationship with General Motors made Fisher Body vulnerable to hold-up. Specifically, General Motors could threaten to reduce its demand for car bodies or terminate the relationship altogether unless Fisher Body agreed to reduce the price.

Second, the agreed contract involved an exclusive dealing arrangement, whereby General Motors agreed to buy all of its closed-metal automobile bodies from Fisher Body for 10 years. At the time of the original contract, the dominant production process involved using wooden open bodies; Fisher Body's closed-metal bodies were a novelty. Unforeseen by either party at the time of contracting, the demand for closed-metal bodies (and automobiles in general) rose substantially afterwards. By 1924, more than 65 per cent of General Motors' automobiles had closed-metal bodies.

General Motors became increasingly dissatisfied with the pricing terms of the contract. Fisher Body had adopted a highly inefficient, labour-intensive production process. Rather than make relevant capital investments, Fisher Body employed additional workers and placed a 17.6 per cent margin on its workers' wages. While opportunistic and inefficient, this practice was nonetheless consistent with the original contract terms, which permitted Fisher Body to charge General Motors its variable costs of production plus 17.6 per cent.[828] As a result, the imperfect terms of the contract enabled Fisher Body to hold up General Motors.[829]

Third, unanticipated circumstances pushed General Motors and Fisher Body outside of their contractual self-enforcement range. The unexpected increase in demand for car bodies was so substantial that the expected profit to Fisher Body from exercising hold-up materially outweighed the reputational capital that General Motors could impose. Accordingly, Fisher Body took advantage of an imperfect, cost-plus contract to the detriment of General Motors. By 1924, General Motors found the relationship intolerable and commenced negotiations to purchase equity in Fisher Body. The result was a final merger agreement in 1926.[830]

[828] Fisher Body also used the contract to locate its production facility far from the General Motors assembly plant. It then charged General Motors its variable transportation costs plus 17.6 per cent for transport of the car bodies to the General Motors assembly plant. However, a positive argument for this decision is that acceding to General Motors' request to locate its plant adjacent to the General Motors plant would have exposed Fisher Body to some degree of site-specificity. See Klein, B, 'Why hold-ups occur: the self-enforcing range of contractual relationships', *Economic Inquiry*, vol. 34, no. 3, 1996, p. 446.

[829] Church, J & Ware, R, *Industrial Organization: A Strategic Approach*, 2000, p. 78.

[830] Klein, B, Crawford, R & Alchian, A, 'Vertical integration, appropriable rents, and competitive contracting process', *Journal of Law and Economics*, vol. 21, no. 2, 1978, pp. 309–310.

APPENDIX B: SERVICE AND FACILITY DEFINITIONS

For the reasons set out in the analysis of criterion (a), the QCA has identified seven parts of the existing declared service, each of which is itself a 'service' within the meaning of s. 72 of the QCA Act.

Each service is the use of a facility.

In each case the facility is rail transport infrastructure for providing transportation by rail if the infrastructure is used for operating a railway for which Queensland Rail Limited, or a successor, assign or subsidiary of Queensland Rail Limited, is the railway manager (where all terms have the meanings given to them in the QCA Act as at the date of this final recommendation). For convenience, the relevant rail transport infrastructure is identified by reference to the widely described and understood components or rail systems of Queensland Rail's network.

Accordingly, each service and facility is described as follows:

- the Tablelands system service, which is the use of the Tablelands system (where the facility is referred to in this final recommendation as the Tablelands system)
- the North Coast Route service, which is the use of the North Coast Line and the Metropolitan system (where the facility is referred to in this final recommendation as the North Coast Route)
- the Mount Isa Route service, which is the use of the Mount Isa Line and those parts of the North Coast Line that interconnect the Mount Isa Line and the Port of Townsville (where the facility is referred to in this final recommendation as the Mount Isa Route)
- the Central Western Route service, which is the use of the Central Western system, the Metropolitan system, and those parts of the North Coast Line that interconnect the Central Western system and Metropolitan system and the Port of Mackay (where the facility is referred to in this final recommendation as the Central Western Route)
- the Western Route service, which is the use of the Western system, the Metropolitan system and those parts of the West Moreton system that interconnect the Western system and the Metropolitan system (where the facility is referred to in this final recommendation as the Western Route)
- the South Western Route service, which is the use of South Western system, the Metropolitan system and those parts of the West Moreton system that interconnect the South Western system and the Metropolitan system (where the facility is referred to in this final recommendation as the South Western Route)
- the West Moreton Route service, which is the use of the West Moreton system and the Metropolitan system (where the facility is referred to in this final recommendation as the West Moreton Route).

The geographic description of each facility is set out in each criterion (a) chapter for that respective service.

Where use of the Metropolitan system is referred to as part of the relevant facility, it is a reference to the whole of the Metropolitan system. The QCA considers this is appropriate as this approach provides flexibility to Queensland Rail and its users in managing the use of the Metropolitan system. The Metropolitan system is unique among Queensland Rail's rail systems in that it is used to carry large numbers of above-rail commuter passenger services. The QCA notes that above-rail passenger services

are subject to particular statutory requirements, the operation of which may require flexibility in the scheduling of above-rail freight services on the Metropolitan system.[831]

The QCA does not consider that it is necessary or appropriate to attempt to identify the specific parts of the Metropolitan system that are utilised by Queensland Rail in conjunction with the other identified parts of the network. Such an approach would risk producing a service definition that is unduly narrow, by excluding rail infrastructure that is or could be used by Queensland Rail to operate the services described in this Appendix alongside its passenger services.

[831] Queensland Rail, sub. 33, p. 38, para. 186; Queensland Rail, *Draft Queensland Rail Access Undertaking 1*, explanatory submission, March 2012, p. 18, https://www.qca.org.au/wp-content/uploads/2019/06/8354_r-qrail-qrail2012dau-expdocs2012dau-0412.pdf.