



Economic assessment of exclusive licensing of towage services at Port of Gladstone

A REPORT PREPARED AS PART OF SVITZER'S RESPONSE TO GLADSTONE
PORT CORPORATION'S NOTIFICATION APPLICATION TO THE ACCC

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Executive Summary

Gladstone Ports Corporation (GPC) proposes to issue an exclusive licence for the provision of towage services at the Port of Gladstone for the period from 1 January 2020 to 31 December 2027.

The purpose of this report is to provide an economic assessment of the underlying assumptions and arguments used to support this exclusive towage licencing arrangement, including information disclosed in King & Wood Mallesons' (KWM's) submissions and Price Waterhouse Coopers' (PwC's) supporting submission.

Our economic assessment identifies the following primary concerns with the assumptions and arguments made in support of continuing the current exclusive licensing arrangement at the port:

- GPC has not reasonably demonstrated that economies of scale in towage service provision are so large that a single towage operator at the Port of Gladstone is the most efficient market structure
- GPC has not given sufficient weight to the effectiveness of potential entry to discipline the market behaviour of an incumbent operator. Sunk costs are not a significant factor in towage service provision, which means that the towage market at a port is contestable, even if it is serviced by a sole provider, provided the exclusive licence does not exist. The Port of Gladstone is Australia's 3rd busiest port for tug jobs – for such a port in the absence of an exclusive licence, the threat of entry will effectively constrain an incumbent's behaviour. Exclusive licensing removes this discipline
- GPC has assumed that demand can be reliably predicted at the port over an eight year period and that GPC is best placed to determine the towage requirements of port users. Exclusive licensing eliminates the ability of individual users and groups of users to seek out and negotiate commercial agreements with towage services providers that meet their individual or collective needs, and to renegotiate these agreements as needs change over time. The nature of the process GPC foreshadows departs materially from the conditions that underpin the efficiency rationale associated with Demsetz auctions.

Each of these concerns is summarised in the sections below.

Scale economies in towage service provision

In simple terms, a natural monopoly is said to exist where, for a specific good or service market, a single firm can serve total market demand at lower cost than any

combination of smaller or more specialised firms. This is typically due to economies of scale and scope, such that total market demand for a specific service can be supplied at lowest cost by a single firm.

The difficulty lies not in accepting that towage may under certain conditions be a natural monopoly, but in determining in advance precisely what these conditions are. This has been obscured to some extent in an Australian context by the repetition of the figure of 8,000 tug jobs per year as the level at which economies of scale in towage operation may be exhausted.

PwC adopts this threshold in modelling several hypothetical future states of the Port of Gladstone's towage services market. In contrast, KWM in its supplementary report dispenses with the 8,000 threshold, asserting that it could extend to 11,000 tug jobs/annum, without providing any supporting evidence.

But the reality is more complex. We have seen (and continue to see) simultaneous service provision by two or more operators for substantial periods in ports in which the total number of tug jobs is well below either of these levels, including the very small port of Eden, let alone a port as large as the Port of Gladstone (Australia's 3rd largest port by tug job volume).

There are many ways in which towage services can be organised, and these arrangements, and the structure and composition of demand as well as the total number of tug jobs will affect the efficient and sustainable structure of service delivery, including the number of active market participants.

It is also possible a single operator is the most efficient tug resourcing option at a single point in time (i.e. around the time of the tender, depending on the basis for awarding the successful tender and the capacity requirements relative to market need) but will cease to be so at some time during the licence period. An exclusive licence impairs the market adjusting efficiently to changes in market conditions, to the detriment of customers.

PwC's main conclusion is that a single towage operator is the most efficient market structure for towage services at the Port of Gladstone. However, PwC's conclusion would be reached in the many markets which involve reserve capacity in the delivery of a service (which is very common).

This is because the only demand uncertainty faced by a single provider is the uncertainty of market demand, but with multiple service providers each faces uncertainty about market share as well as uncertainty about market demand; competition in the market often implies greater excess capacity than monopoly.

As a general point, there is often duplication of capital in workably competitive markets but workably competitive markets are more likely to lead to incentives for reductions in all costs and improved services. The duplication of capital is not generally considered an adequate reason for favouring monopolies.

PwC's restrictive and unrealistic assumptions significantly magnify this effect in its modelling, including the adoption of a static cost comparative approach, failure to consider low cost entry strategies, dismissal of commercial arrangements between competing providers to manage overflow work and rigid market segmentation.

These assumptions result in a misleading picture of feasible comparative cost bases of towage operators under realistic market entry options. The exclusive licence is not for a point in time - it is for a period of up to 8 years and it is most likely that a towage provider's incentives to improve efficiency and services will be sharper in an environment where an operator's relative efficiency and service offering is consistently tested in the market.

It is also essential to recognise that although there may be substantial fixed costs, fixed costs are not the same as sunk costs and sunk costs in the provision of towage services are not material. This means that a focus on fixed costs is misplaced because it is the existence of substantial sunk costs that might justify an exclusive licensing arrangement.

Even if it is the case that scale economies support a single firm, this is not a reason to allow an exclusive licence arrangement in a situation where there sunk costs are not economically important because contestability of the market will determine the number and identity of service providers. Allowing contestability is also likely to provide incentives to lower costs and improve the service offering over time.

Entry and the threat of entry in towage operators

In the absence of exclusive licensing, the ongoing threat of entry imposes an effective discipline on the behaviour of an incumbent service provider.

It has been argued that the high cost of entering the harbour towage market undermines the effectiveness of the threat of entry. However, this is difficult to reconcile with the fact that, although most Australian ports are at present served by a single service provider, in last decade, in particular, there has been a number of entries and exits in the provision of harbour towage in specific Australian ports.

Although the costs of entry are not insignificant, most of the costs an operator incurs on entry can be recovered on exit. A large part of the cost of entering a towage services

market is the capital to obtain the required number of tug boats. However, harbour towage has the characteristic that this principal capital asset is highly mobile.

If operations at one location prove unprofitable, these assets can be readily redeployed to another port. The major capital costs incurred in entering a port are therefore substantially recoverable on exit.

In addition, tugs that are used for harbour towage services can, in principle, also be used for other purposes: for harbour towage in a nearby port, for salvage operation, for off-shore support or even for tug-and barge operations. Where opportunities for such complementary deployment exist, a second operator may be sustainable in a specific towage services market even with relatively low numbers of towage jobs.

The most important implication of the fact that towage services' primary capital cost is not sunk is that entry and exit into this market at a specific port can more readily occur. In this regard, our report presents the costs of entering and exiting the Gladstone towage services market, identifies optional strategies for entry and concludes that, in the context of this towage services market, there are no material barriers to entry.

On these economic grounds, an exclusive licencing arrangement cannot be supported unless there are other compelling benefits accruing from the imposition of such an arrangement.

Benefits and detriments of exclusive licencing arrangements

Several key assumptions are usually made (either implicitly or explicitly) to justify the use of exclusive licencing.

However, there are significant doubts about the most important assumptions and purported benefits that GPC and its advisors have associated with the proposed exclusive licensing arrangements for towage services in the Port of Gladstone market and significant detriment, including:

Loss of ongoing competitive tension

The awarding of an exclusive licence for an extended period brings with it a loss of competitive threat after the tender process is completed and the period of exclusivity has commenced. If an incumbent is earning excessive profits, it is relatively easy for an entrant to enter the market. Moreover, the vast majority of towage customers are sufficiently sophisticated to take advantage of this opportunity.

Second, by removing the threat of new entry the exclusive licence has two effects:

- It removes a powerful incentive for an incumbent to perform efficiently with a view to minimising the likelihood of new entry
- It prevents other service providers offering contemporaneous competition for relatively short periods followed by exit, instances of which represent not market failure but rather the effectiveness of market processes for testing and resolving the issue of the most efficient structure of a market.

Further, for the term of an exclusive licence, the contracted service provider does not face the competition-driven incentives to innovate and invest which are inherent in open markets.

Predictability of demand

An exclusive licensing arrangement does not adapt as efficiently as a market environment to variability in demand. Accordingly, the benefits claimed by GPC assume that demand can be reliably predicted for the duration of the franchise period. However, experience over the period of the current licence clearly shows that it is extremely difficult to predict demand for towage services, especially in a port, such as Gladstone, that is heavily reliant on resource exports.

Principal-agent problem

We acknowledge that GPC has no financial interest in pursuing the exclusive licensing process other than to optimise the provision of towage services at the port. However, GPC and port users are separate entities, and exclusive licensing implies that GPC will take on itself the responsibility of acting as the agent of port users in determining arrangements for the provision of towage services. This gives rise to a principal-agent problem because:

- the requirements of users are not predictable and known to GPC
- the priorities of the towage customer and the GPC exhibit an oblique and incomplete alignment

Inevitably, under exclusive licensing, important judgements on terms and conditions of towage service delivery will be made by an entity with imperfect information about consumer preferences, supplier costs and the structure of future demand and with different priorities to its customers who ultimately pay for the towage service.

In essence, an exclusive licence rigidifies some of the terms of service provision in a form that is judged to be appropriate by the controlling or regulatory body, in this case GPC, at a point in time, to be in the interests of customers. On the other hand, an open

market allows the customers of the service, in this case parties shipping bulk commodities, to directly negotiate those terms, and to vary them over time as their needs vary.

Quasi-regulatory arrangement

Whilst we have been informed of the general approach to be taken to exclusive license tendering, we are not aware of the specific arrangements that will apply.

However, it is clear, in a Demsetz auction sense, that the contract that emerges from the exclusive licensing process will be “incomplete”. Williamson has commented on the problems of incompleteness in such a contract:¹

- (1) the initial award criterion is apt to be artificial or obscure; (2) execution problems in price-cost, in other performance, and in political respects are apt to develop; and
- (3) bidding parity between the incumbent and prospective rivals at the contract renewal interval is unlikely to be realized.

This incompleteness means that the exclusive licensing arrangement will result in GPC performing the role of a quasi-regulator determining towage charges. GPC will perform these functions without any of the protections that normally arise in regulatory processes. It is clear that the measures will mean that the exclusive licensing arrangement will depart materially from the type of arrangement that underpinned Demsetz’s original franchising concept and, as a consequence, the benefits that GPC ascribes to this approach cannot be assumed to arise.

Other issues

We are not aware of any legitimate safety issues arising from the competitive provision of towage services. The exclusive licensing arrangement could have an unintentional adverse impact on competition in other ports because it prevents towage providers at those ports with surplus capacity redeploying that capacity by entering the Port of Gladstone (thereby increasing barriers to exit).

Costs and benefits of exclusive licencing

In the absence of exclusive licensing, the most likely arrangement for towage services at the Port of Gladstone is a non-exclusive licensing regime. Under a non-exclusive

¹ Williamson, O. 1976. “Franchise Bidding for Natural Monopoly—In General and with Respect to CATV.” *Bell Journal of Economics* 7: 73–104, p 80.

arrangement the incumbent firm would continue to provide the services it provides now.

The significant difference is that the incumbent's performance would be driven by the pressure of the threat of new entry, which can be only to the benefit of customers. If one new firm entered the market and the subsequent competition led to the exit of one of the firms, then customers not only will have benefited from the competition while it existed - they would continue to benefit because their discovery of efficient prices and services will maintain pressure on the remaining firm to perform (or itself risk new entry).

Asserted benefits of exclusive licensing

GPC and its advisers assert that there are significant benefits of the exclusive licencing regime:

- Efficiency gains based on economies of scale associated with a sole provider at the Port – the supporting analyses ignore many factors, including:
 - plausible low cost entry strategies
 - the scope for efficient cross-hiring of tugs between firms to manage overflow conditions
 - the likely inaccuracy of centralised demand forecasts and the benefits of decentralised resource allocation
 - the overstatement of the complexity of managing more than one towage service provide
 - not recognising that sunk costs are not material and so not a barrier to entry
- Lower prices compared to other ports: the price comparison provides no indication that GPC's exclusive licencing of towage services reduces the prices port users pay for towage compared to the prices paid by customers in non-exclusive ports. This implies very strongly that customers would not, at the very least, lose were a new entrant to enter then exit the Gladstone market and that, indeed, some of the larger customers may benefit
- Competitiveness of sub-contracting model – KWM's supplementary submission claims that the sub-contracting arrangements existing in several ports impose no competitive pressure on incumbent firms, however analysis shows this is not so at the Port of Newcastle, which is the most comparable port (see Figures 16 and 17).

Detriments of exclusive licensing

It is clear there is a range of significant detriments to efficiency from exclusive licensing:

- Inefficient pricing through a quasi-regulatory process controlled by GPC which will not give the incumbent towage service provider the incentive or ability to reduce costs and improve services as would a towage service provider threatened by new entry
- Inefficient provision of towage capacity because customers cannot optimise the services to meet their changing needs over time
- Loss of competitive tension as soon as an exclusive licence is granted (unlike the counter-factual where the threat of new entry is always acting on the incumbent's behaviour)
- The costs of demand uncertainty inherent to forecast modelling are locked in to a contract for the period of the exclusive licence and are borne by customers (GPC and the incumbent towage service provider having little incentive to make adjustments, particularly if demand is less than forecast)
- Principal-agent issues, due to GPC's information about its customers' priorities and requirements – and their evolution over time will be imperfect and the imperfect alignment between GPC's interests and those of its customers are misaligned
- Contractual incompleteness - that the contract that emerges from the exclusive licensing process will be "incomplete", which undermines the claimed benefit
- The loss of competitive tension affects service providers and customers in other ports as the competition restrictions provide fewer opportunities for towage assets to be reallocated efficiently to the Port of Gladstone.

Conclusion

Based on the available evidence, we consider that towage customers at the Port of Gladstone would be made worse off, relative to a contestable towage services, if an exclusive licensing arrangement for towage customers was allowed. Although a single supplier may not require as much capacity as a situation where there was more than one supplier, this is a narrowly based, static perspective that has not been reasonably demonstrated as conclusive.

We consider that the flexibility and competitive incentives arising from the threat of new entry in the Port of Gladstone's towage services market means that customers would stand to obtain positive benefits, such as lower prices (increased discounts) and

improved services, which would be less likely to occur to the same extent under an exclusive licence arrangement. Furthermore, a contestable market would likely be able to adjust more efficiently to variability in demand over an extended period. These are the sort of outcomes one would expect in a workably competitive market which we consider would occur in this case in the absence of an exclusive licence.

In our view, this means the benefit of the exclusive licence cannot outweigh its detriment and cannot be supported on economic grounds. As we are not aware of any legitimate safety issues arising from the competitive provision of towage services, there appears to be no justification for exclusive licensing in the towage market circumstances of the Port of Gladstone.

We conclude, based on our analysis of the available evidence, that renewal of the exclusive licence to provide towage services in the Port of Gladstone, by foreclosing competitors and preventing customers from supplying their own towage services for a further 8 years, will be likely to reduce service levels and increase cost for customers requiring towage services in the Port of Gladstone. Consumer choice would be effectively eliminated by preventing competitors and customers from supplying their own towage services for up to a further 8 years. We do not consider that there are any material offsetting benefits arising from this exclusive licensing arrangement that could not be achieved by less restrictive means.

An exclusive licence arrangement would be an appropriate response should competition fail in an unregulated towage services market for the Port of Gladstone. However, no evidence is presented to indicate this would be the case in any port, let alone the 3rd largest towage services port in Australia.

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1 Introduction

Gladstone Ports Corporation (GPC) has notified the Australian Competition and Consumer Commission (ACCC) of its intention to require that all vessels needing towage services at the Port of Gladstone use the services of the holder of an exclusive tug licence for the Port of Gladstone for the period from 1 January 2020 to 31 December 2027. This would continue a series of exclusive licences that have been granted by GPC since 2000.

GPC proposes to award a new exclusive licence through a competitive tender process which it will administer and subsequently manage over the duration of the licence. Information provided to the ACCC by GPC's advisers, King & Wood Mallesons (KWM) states that GPC is yet to finalise the documents for the competitive process.

GPC's current notification application is supported by submissions prepared by KWM (collectively, KWM submissions), the first dated 13 March, 2018 (the KWM submission) and a supplementary submission dated 18 May, 2018 (the supplementary KWM submission) and a report prepared by PwC dated 13 March, 2018 (the PwC report), which we have considered in the preparation of this report.

In the light of GPC's notification application, Gilbert + Tobin, acting for Svitzer Australia Pty Limited (Svitzer), has requested Synergies Economic Consulting (Synergies) to provide a report responding to the KWM submissions and the PwC Report. To this end, our report provides an assessment of the economic desirability of an exclusive licencing arrangement applying to towage services at the Port of Gladstone.

We conclude, based on our analysis of the available evidence, that renewal of the exclusive licence to provide towage services in the Port of Gladstone, by foreclosing competitors and preventing customers from supplying their own towage services for a further 8 years, will be likely to reduce service levels and increase cost for customers requiring towage services in the Port of Gladstone. Consumer choice would be effectively eliminated by preventing competitors and customers from supplying their own towage services for up to a further 8 years. We do not consider that there are any material offsetting benefits arising from this exclusive licensing arrangement that could not be achieved by less restrictive means.

This report is structured as follows:

- Chapter 2 provides an overview of the Australian towage market.

- Chapter 3 assesses whether the provision of towage services at the Port of Gladstone is a natural monopoly, such that a single towage operator is the most efficient market structure.
- Chapter 4 assesses the contestability of the towage market, having regard to the extent of sunk costs.
- Chapter 5 addresses whether the continued imposition of exclusive licensing (often referred to as 'franchise bidding' in the economics literature) in the Port of Gladstone towage services market is likely to deliver the benefits ascribed to it by GPC and PwC.
- Chapter 6 concludes, comparing the benefits and costs of the proposed exclusive dealing arrangements.
- Attachment A explains the forms of licensing operating in Australia
- Attachment B provides more detail on Australian contestable transport markets.

2 Towage service provision

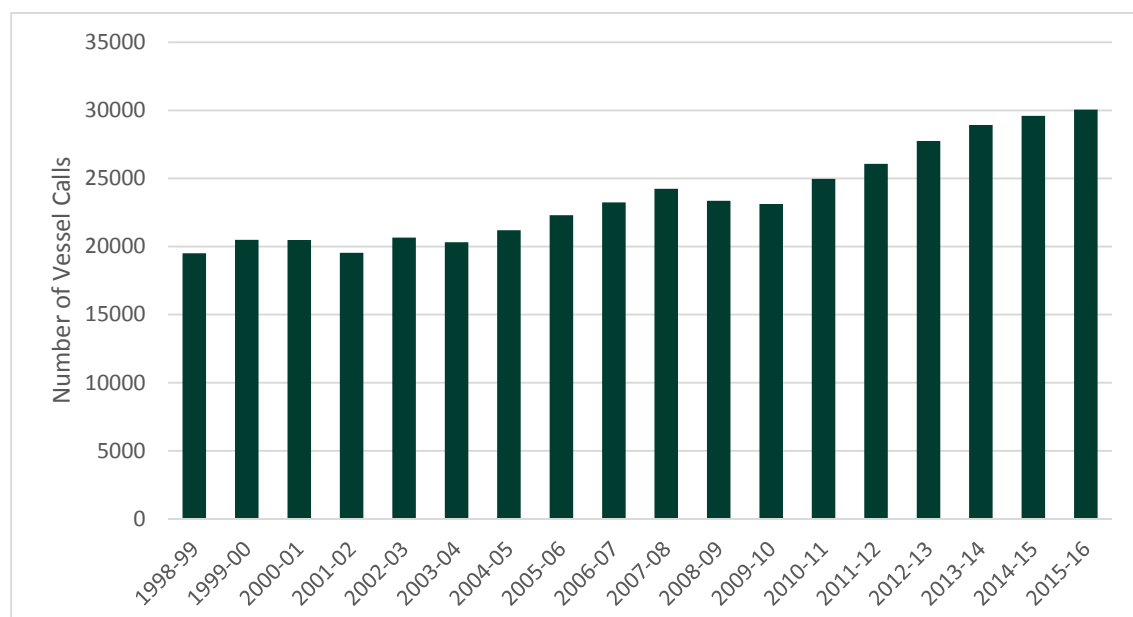
This chapter outlines provision of towage services in Australia.

2.1 Australian towage industry

2.1.1 Overview of the Australian market

Figure 1 shows the movements in the number of vessel calls to Australian ports over the last 17 years increased from 19,505 in 1998/99 to 30,056 in 2015/16, an increase of over 54%.²

Figure 1 Number vessel calls visiting Australian ports (1998/99 - 2015/16)



Data source: Bureau of Infrastructure, Transport and Regional Economics (2017), *Yearbook 2017 Australian Infrastructure Statistics*, Available from https://bitre.gov.au/publications/2017/files/yearbook_2017.pdf. Bureau of Infrastructure, Transport and Regional Economics (2018), *Australian Sea Freight 2015-16*, Available from https://bitre.gov.au/publications/2018/asf_2015_16.aspx.

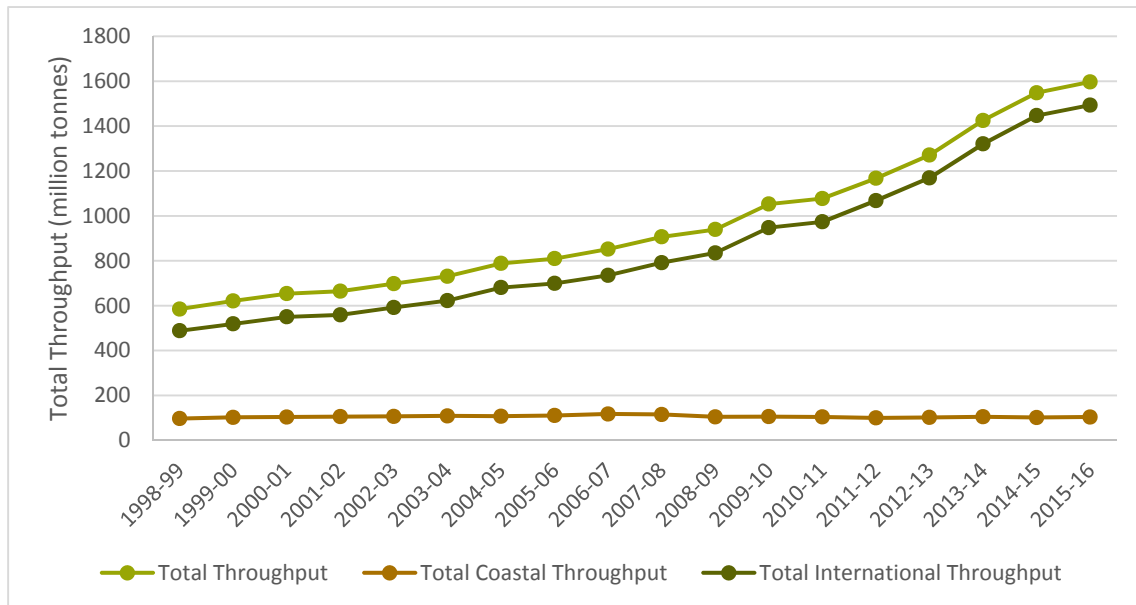
Demand for towage services is derived from vessel calls to Australian ports. Traditionally, the trade task has been divided into containerised and non-containerised cargo. Vessel calls for both containerised and non-containerised cargo create demand for tug jobs. Hence, even though the Port of Gladstone does not handle significant container volumes, growth in the container task drives growth in tug jobs and as such remains relevant to a consideration of the wider towage market which is relevant to the

² This extended period of analysis facilitates comparison with the environment that informed the Productivity Commission's review of harbour towage in 2002.

Port of Gladstone. Hence, we consider both containerised and non-containerised cargo in this section.

Figure 2 shows that over the same period, the quantity of cargo handled by Australia's ports almost tripled from about 580m tonnes to approximately 1,600m tonnes.

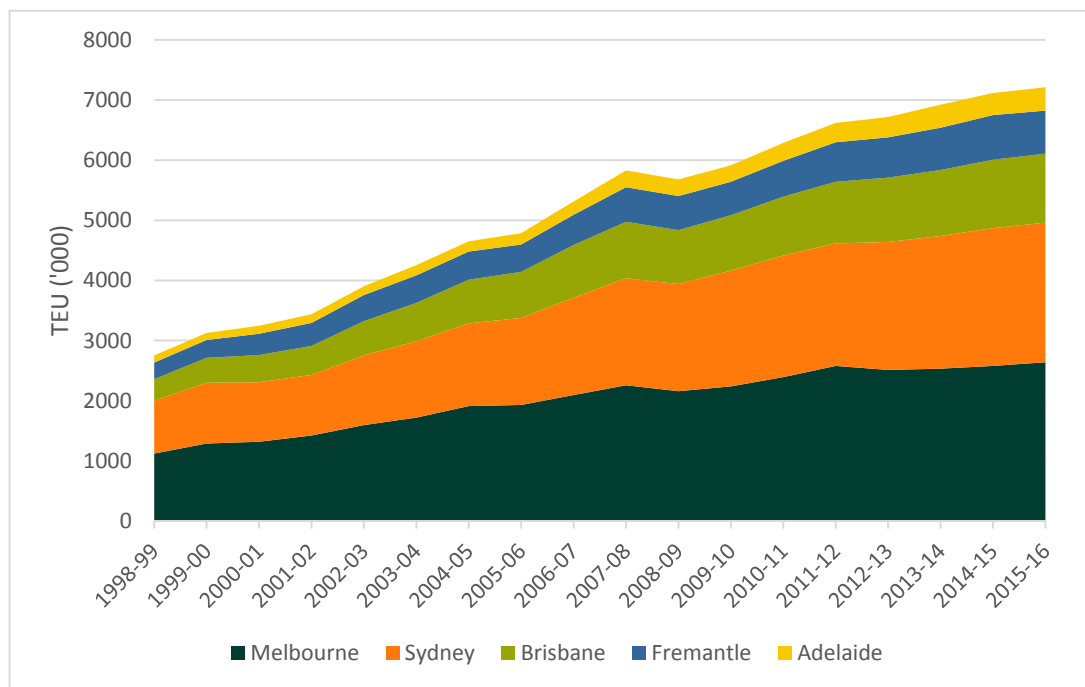
Figure 2 Cargo handled by Australia's Ports (1998/99 - 2015/16)



Data source: Bureau of Infrastructure, Transport and Regional Economics (2017), *Yearbook 2017 Australian Infrastructure Statistics*, available from https://bitre.gov.au/publications/2017/files/yearbook_2017.pdf. Bureau of Infrastructure, Transport and Regional Economics (2018), *Australian Sea Freight 2015-16*, available from https://bitre.gov.au/publications/2018/asf_2015_16.aspx.

Figure 3 shows the growth in container exchanges also nearly more than doubled over the 17 year period to 2015/16.

Figure 3 Container exchanges in the top 5 Australian ports



Data source: Bureau of Infrastructure, Transport and Regional Economics (2017), *Yearbook 2017 Australian Infrastructure Statistics*, Available from https://bitre.gov.au/publications/2017/files/yearbook_2017.pdf.

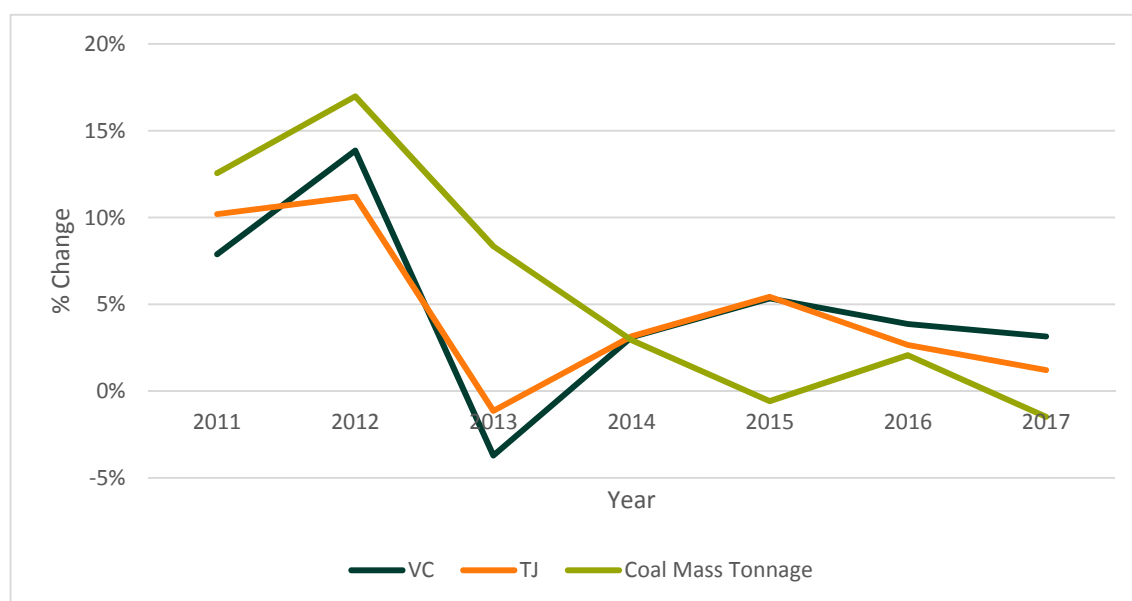
Whilst Port of Gladstone is a large bulk port, the growth in container traffic underscores the increasing demand for towage services in Australia's ports.

The growth in trade, vessel calls and tug jobs follow a similar trajectory but are not perfectly correlated. One reason for this relationship is the trend in the maritime industry toward larger vessels.

For a given volume of trade, larger vessels mean fewer vessel calls at ports, but may require more tug jobs for at least some vessel calls. This is because, as ships increase in size, the number of tugs required to assist each ship in entering and leaving the port also tends to increase.

The following chart is derived from movements at the Port of Newcastle and shows that growth in trade, vessel calls and tug jobs follow a similar but not identical trajectory because of differences in vessel size from year to year.

Figure 4 Year on Year % Change in Coal Volume, VC & TJ in Newcastle



Data source: Svitzer

2.1.2 Growth in the Port of Gladstone market

Vessel calls to the Port of Gladstone grew substantially over 1998/99 to 2015/16, more than trebling over the 17 year period (from 606 to 1,913). Over the same period, the volume of cargo loaded at Gladstone also nearly trebled, from 32.5m tonnes to 92.7m tonnes.³ This growth in trade rendered the Port of Gladstone Australia's fifth busiest port by vessel movement. More significantly, due to the mix of trades at the Port of Gladstone, in 2015/16, it was the third largest port in Australia in tug jobs (see Figure 5). The relatively more intense use of tugs at the Port of Gladstone reflects the requirements of LNG vessels.

Table 1 Major Australian ports' - port calls

	No. of Port Calls		No. of Port Calls		No. of Port Calls		No. of Port Calls
Port	1998-99	Port	2005-06	Port	2010-11	Port	2015-16
Melbourne	2,595	Melbourne	3,296	Melbourne	3,274	Melbourne	3,189
Sydney	2,111	Sydney	2,327	Brisbane	2,380	Port Hedland	2,712

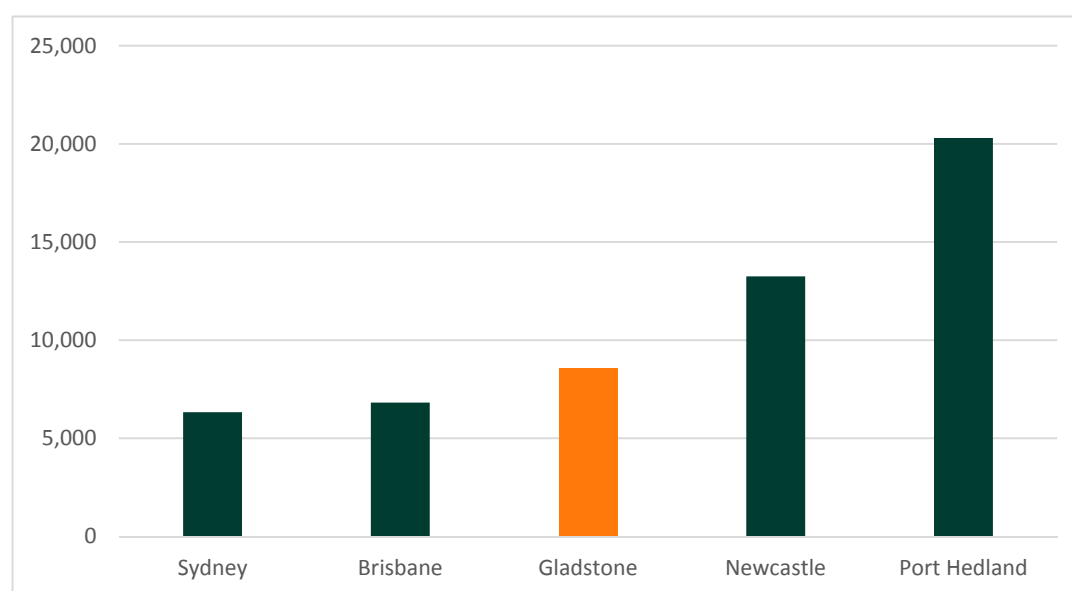
³ Bureau of Infrastructure, Transport and Regional Economics (2017), Table T 7.3b p. 115 and Table T 7.5a p. 117. The Annual Report for the Gladstone Port Corporation states that port throughput in 2015/16 was 116.7Mt with 1856 vessel calls.

Brisbane	1,981	Brisbane	2,317	Newcastle	1,774	Brisbane	2,353
Fremantle	1,705	Fremantle	1,460	Sydney	1,703	Newcastle	2,221
Newcastle	1,221	Newcastle	1,284	Fremantle	1,603	Gladstone	1,913
Gladstone	606	Gladstone	1,215	Gladstone	1,422	Sydney	1,726
Port Hedland	602	Port Hedland	883	Port Hedland	1,312	Fremantle	1,705
Others	8,684	Others	9,519	Others	11,498	Others	14,237
All Ports	19,505	All Ports	22,301	All Ports	24,966	All Ports	30,056

Note: Ports are ranked from the highest number of port calls to the lowest

Source: Bureau of Infrastructure, Transport and Regional Economics (2017), *Yearbook 2017 Australian Infrastructure Statistics*, Department of Infrastructure and Regional Development.

Figure 5 Number of Tug Jobs at Australia's busiest ports 2015-16



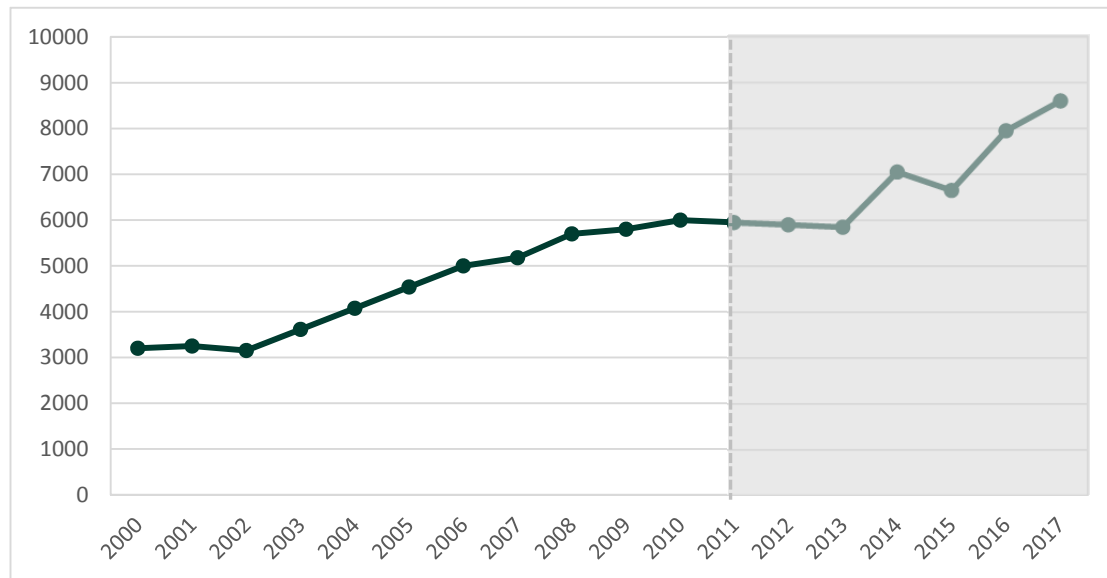
Source: Svitzer

Figure 6 depicts the accompanying increase in tug jobs at the Port. In 1999/00, there were just over 3,000 tug jobs in the Port. This increased to about 8,600 tug jobs in 2016/17 – compound annual growth over the period of about 6.8%. Figure 6 shows that during the life of the current exclusive licence, the number of tug jobs each year grew from 6,000 to 8,600 – an increase of approximately 43%.

The increase in tug jobs in 2014 was driven by increased coal throughput at the RG Tanna Coal Terminal. The increase in demand for tug jobs to the end of 2017 is

attributable largely to an increasing number of LNG vessels and vessels within the 50,001-60,000 gross registered tonnage (GRT) category.⁴

Figure 6 Tug Jobs at Port of Gladstone – FY2000 to FY2017

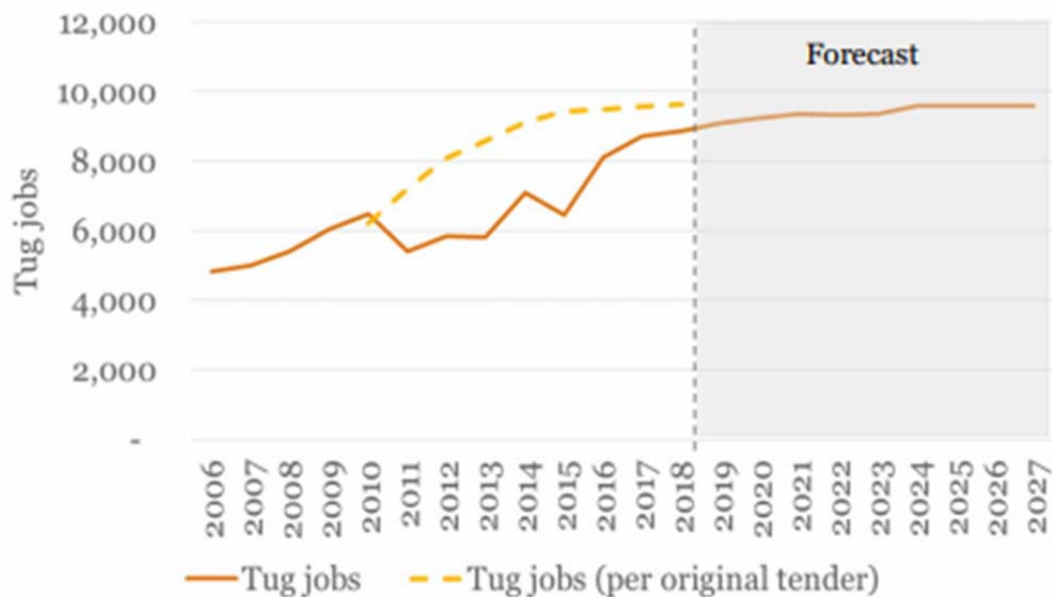


Source: <https://www.accc.gov.au/system/files/public-registers/documents/D11%2B2358464.pdf>

The GPC forecasts moderate growth in demand for tug jobs from 2018/19 to 2024/25, as shown in Figure 7. The number of tug jobs is forecast to increase by approximately 5% over the 6 year period.

⁴ PwC, p22.

Figure 7 Historic and forecast growth in Gladstone tug jobs



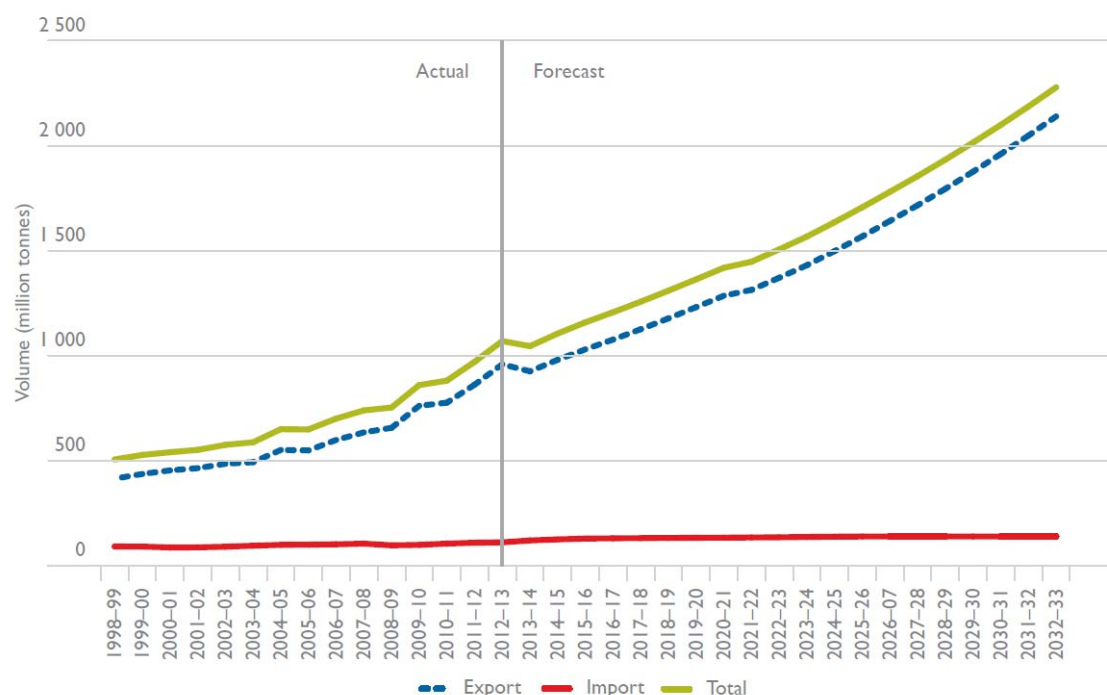
Source: PwC (2017) Towage arrangements at the Port of Gladstone, p 22 (Figure 11).

However, there is considerable uncertainty around these growth forecasts. In contrast to the tug job forecasts in the context of GPC's previous Notification application (as shown in the dotted line in Figure 7), which significantly overstated the level of tug jobs, it is entirely possible that the current forecast understates future demand for harbour towage services. The uncertainty surrounding demand forecasts at Port of Gladstone is addressed in section 5 of this report.

In contrast to PwC's growth forecast for Gladstone tug jobs, the Bureau of Infrastructure, Transport and Regional Economics has forecast that total Australian non-containerised trade will grow at 3.9% per annum roughly doubling over the next 15 years (see Figure 8). Containerised trade is projected to grow at 5.1% between 2014/15 to 2032/33 increasing from 7902m TEUs to 19377m TEUs or about 40 percent (see Figure 9).⁵

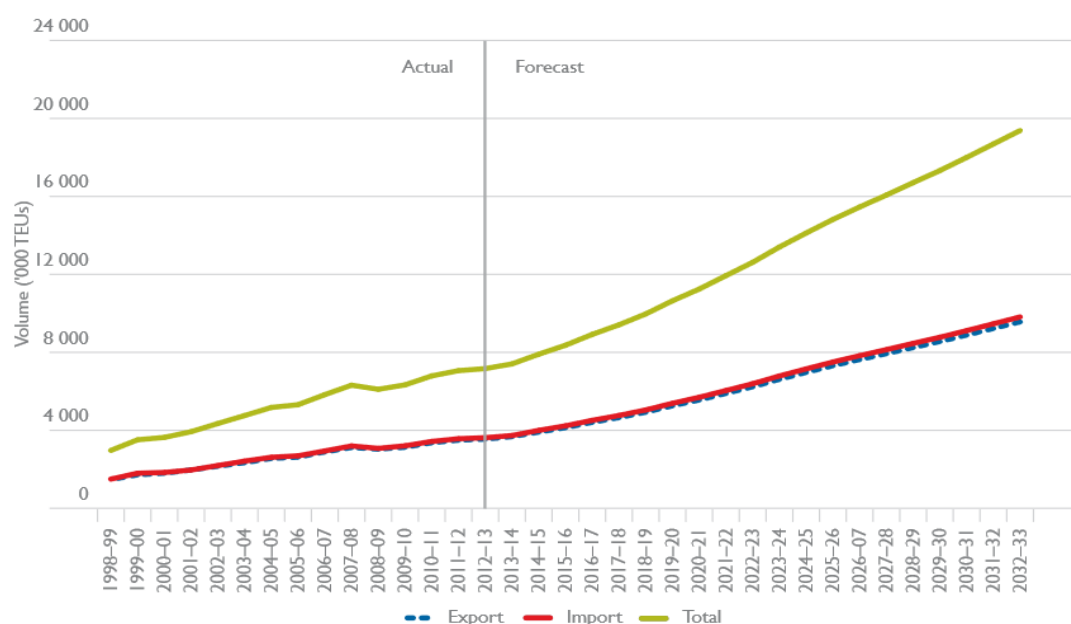
⁵ Bureau of Infrastructure, Transport and Regional Economics (2014), Containerised and Non-containerised Trade through Australian Ports to 2032-33, Research Report 138, Department of Infrastructure and Regional Development, December, Table 4.13 p,71 https://bitre.gov.au/publications/2014/files/report_138.pdf.

Figure 8 Forecast of non-containerised trade, 1993-94 to 2024-25: All Ports



Source: Ports Australia (2014) and BITRE estimates.

Figure 9 Forecast of containerised trade for all ports to 2032-33 for all ports



Data source: BITRE (2014), *Containerised and non-containerised trade through Australian ports to 2032-33*, available at https://bitre.gov.au/publications/2014/files/report_138.pdf

This growth demonstrates that (notwithstanding the increase in vessel sizes given the changes in the shipping fleet and the investments at Australian ports in channel deepening and wharf expansions) it is reasonable to expect considerable growth in tug jobs in Australian ports, which will mean a larger towage fleet with greater service capability.

This growth is important to the levels of competition that can be expected to emerge in the future. Growth provides towage providers with more opportunities to enter the market. Towage providers are also likely to perceive the risk of entry at any port will be lower when tug jobs at other ports are growing strongly; the mobility of tug boat capacity means that there can be expected to be more options for the productive deployment of tug boats in the event that an entry to a particular port is unsuccessful.

2.2 Control of entry in Australian ports

Figure 10 shows that the provision of towage services at most Australian ports is open to competitive entry.⁶ Indeed, ports in every jurisdiction other than Queensland either have no licensing requirement or issue non-exclusive licences for towage service provision.⁷ As such, the GPC, the port authority for one of the largest ports in Australia (the 3rd largest by tug job) appears anomalous in claiming that an exclusive arrangement is necessary to efficiently secure towage services in the port.

⁶ Ports with exclusive licences for towage services are also known as “closed” ports and ports with no license requirement or non-exclusive licences are referred to as “open” ports. TasPorts has vertically integrated into towage but we understand that technically it is able to license additional towage providers.

⁷ Attachment A contains a discussion of licensing regimes in Australia.

Figure 10 Australian Ports by Licence Category



3 Assessing the existence of scale economics in towage service provision

GPC's arguments in support of continuation of exclusive towage licence arrangements at the Port of Gladstone are predicated on the assumption that these towages services can be most efficiently provided by a single towage operator.

In other words, GPC considers that scale economies in towage service provision are such that all current and future expected growth in towage services at Port of Gladstone over the proposed extended exclusive licensing period can be provided at lower cost by a single towage operator than two or more operators and without compromising the quality and flexibility of the service offering.

However, even if it is the case that scale economies support a single firm this is not a reason to allow an exclusive licence arrangement in a situation where there sunk costs are not significant. This aspect is discussed in Section 4.

3.1 Scale economies and natural monopoly

In simple terms, a natural monopoly is said to exist where, for a specific good or service market, a single firm can serve total market demand at lower cost than any combination of smaller or more specialised firms. This is typically due to economies of scale and scope.⁸

Difficulty lies not in accepting that towage may under certain conditions be a natural monopoly, but in determining precisely what these conditions are. Importantly, this uncertainty makes it difficult to determine when entry is efficient.⁹

Recognition of this uncertainty and narrow focus has been obscured to some extent by the repetition of the figure of 8,000 tug jobs per year as the level at which economies of scale in towage operation may be exhausted and so supports a single supply arrangement.¹⁰ The PwC report adopts this threshold, although KWM in its

⁸ Technically, the test for natural monopoly is sub-additivity. Sub-additivity is the technical term characterizing a single firm as the lowest cost supply option. It is a more general concept that encompasses economies of scale but also allows for a single firm to still be the lowest cost option for supply when economies of scale are exhausted but the market is not large enough to efficiently support more than one firm.

⁹ The scope for lowest cost entry depends on the minimum efficient scale where a firm can take advantage of economies of scale given the level of demand. There is considerable uncertainty about the minimum efficient scale in terms of tug jobs and in any case consideration of the minimum efficient scale by itself is not sufficient to determine that there should be a single firm with an exclusive supply arrangement. This is because the minimum efficient scale concept is a narrow, static concept and one also needs to consider how an additional competitor can exert competitive pressure to reduce average costs (i.e. shift the cost function down) and improve the service offering in terms of quality and flexibility.

¹⁰ See:

supplementary report dispenses with it, asserting that it could extend to 11,000 tug jobs/annum, but without providing any evidence supporting this assertion.

The source for the “8,000 tug jobs” threshold is generally given as the Productivity Commission’s report of 2002. However, the Commission states merely that “there is some suggestion that economies of scale for a (minimum) tug fleet (and one operator) could be exhausted at around 8,000 tug jobs per year”¹¹, making clear that the source of the figure is a submission to the Commission by consulting firm Dale Cole and Associates Pty Ltd (DCAPL).¹² DCAPL’s submission expresses the opinion that:¹³

Taking into account the capital cost of a tug and its fixed operating costs, harbour towage is a natural monopoly where there are less than 8,000 tug movements per annum.

No analytical basis or empirical evidence is provided to support that opinion, other than the assertion that “entry has only successfully occurred in ports where towage volumes exceed 8,000 tug jobs per annum”.¹⁴ It is difficult then to regard this minimum efficient scale threshold as a definitive standard, but rather simply as a view expressed by one industry observer in 2002, probably with a specific port environment in mind. This is confirmed by the review of entry at several ports, summarised in section 4.2.

The PwC report states in its case study of the Port of Gladstone that, in the first two years of the current licence period, forecast demand was below the:¹⁵

8000 tug job per year threshold identified by the Productivity Commission as the point at which economies of scale for single provider may be exhausted.

The PwC report notes that in 2016/17 the Port saw 8,670 tug jobs and was forecast to see 8,928 tug jobs in 2017/18 (with that growth driven by growth in LNG shipping).¹⁶

ACCC (2012), *Statement of Reasons in respect of the ACCC’s review of a notification by Gladstone Ports Corporation*, 27 June, p11.

ACCC (2009), *Decision in respect of a notification lodged by Gladstone Ports Corporation in relation to towage services at the port of Gladstone*, 1 May, p9.

ACCC (2016), *Application for authorisation lodged by Port of Townsville Limited and Far North Queensland Ports Corporation Limited in respect of joint tendering and licensing arrangements for harbour towage services*, 9 December.

¹¹ Productivity Commission (2002), *Economic Regulation of Harbour Towage and Related Services*, Report No. 24, 24 August, p.xxvi.

¹² Productivity Commission (2002), p.xxvi (Box 1) and p77.

¹³ Dale Cole and Associates Pty Ltd (2002), *Submission to Productivity Commission on Economic Regulation of Harbour Towage and Related Services*, p9.

¹⁴ DAPCL, p11.

¹⁵ PwC (2018), p.8

Notwithstanding the apparent weight the PwC report places on the 8,000 tug jobs threshold by referring to the Productivity Commission in the case study (noting that KWM's supplementary submission abandons this position asserting, without substantiation, that the efficient scale could be up to 11,000 tug jobs per annum), the report later states that it is:¹⁷¹⁸

... impossible to determine a universal minimum threshold for competition for towage, there are a range of factors that can be drawn upon to form a view on whether economies of scale at the Port are likely to be exhausted in the future.

In that regard, other parties have expressed different views on the likely number of tug jobs required to support an efficient operation. In a submission to the ACCC in 2009, for example, PB Towage argued that:¹⁹

some observers suggest total port volume needs to be in excess of 8,000 tug jobs per annum to sustain two operators in open competition. This is debatable and certainly has not been PB Towage's experience where our low cost, self-managed model requires a port volume in the order of 5,000 jobs to support a two-tug entry.

PB Towage's estimate receives support from the fact that, in 2004, a second towage operator became active in Brisbane. At the time, the total number of towage jobs a year in Brisbane was slightly over 5,000.²⁰

In 2006, the UK Competition Commission, considering the proposed acquisition of Adsteam by Svitzer, noted that both operators were active in the Port of Liverpool, which it classified as medium-size port (4,000 to 8,000 tug jobs per year).²¹ The UK Competition Commission defined the counter-factual as the continued, independent operation of the two parties in the port, implying that it regarded this configuration as sustainable.²²

¹⁶ PwC (2018), p.6.

¹⁷ PwC (2018), p.23.

¹⁸ KWM (2018) Supplementary Submission, p.3.

¹⁹ PB Towage, Submission to the ACCC on Gladstone Ports Corporation Exclusive Dealing Notification N93770 <https://www.accc.gov.au/system/files/public-registers/documents/D09%2B21188.pdf>

²⁰ Svitzer (2011), *Submission to the ACCC on the exclusive licensing of towage services at the ports of Townsville and Gladstone*, 23 November, p11.

²¹ UK Competition Commission 2007, *A report on the Proposed Acquisition by Svitzer/Wijsmuller A/S of Adsteam Marine Ltd*, p.15, www.competition-commission.org.uk

²² UK Competition Commission 2007, p28.

Accordingly, there is considerable variation in the literature assessing the extent to which scale economies arise in harbour towage services, reflecting, amongst other things, different operating environments, but the figures referred to in the Productivity Commission report are at the upper end of quoted estimates. We now turn to PwC's assessment of scale economies in harbour towage in the Port of Gladstone.

3.2 PwC's model purpose and assumptions

PwC modelled several hypothetical future states of the Port of Gladstone towage services market and drew conclusions about the comparative efficiency of these states.

3.2.1 Model purpose

PwC's model has been developed to allow indicative cost comparisons to be made between several towage market options identified by GPC, ranging from a single towage operator serving the whole Port of Gladstone market, to more than one towage operator serving the market.

To this end, the model calculates a proxy cost base for each assumed towage operator under each option. This simplified cost base is derived by applying a simple form of the 'building block' methodology, incorporating what appears to be a return on and of capital, plus operating and maintenance costs, including overhead costs.²³

PwC states that its model allows testing of whether the size of the future Port of Gladstone towage services market has reached the point where the economies of scale for a single towage operator are exhausted.²⁴

PwC's model also assumes that a towage operator should be able to recover all prudent and efficient costs, including a commercial return on any capital assets.²⁵

PwC has not modelled an open entry option (Option 5), because in its view 'a fully contestable market for towage services at the Port is unlikely to be feasible'.²⁶

²³ PwC indicates that only costs expected to differ across towage operators under each option are included in its analysis, with costs unlikely to vary materially between options (including fuel) excluded. The level of service, risk and other performance attributes are assumed to be the same across all four options.

²⁴ PwC (2018), Gladstone Port Corporation, p 36

²⁵ PwC (2018), p 36

²⁶ PwC (2018), p36

3.2.2 Assumed tug characteristics and towage market structure

PwC's modelling is based on GPC's definition of four potential options to allow comparisons of possible alternative future towage configurations at the Port of Gladstone as follows:

- Option 1 – a single towage operator serving the whole port (i.e. retention of the existing exclusive licensing arrangement).
- Option 2 – two towage operators, with one serving the LNG market and another serving the rest of the port.
- Option 3 – three towage operators, with one serving the LNG market and the rest of the market served by two operators, with one of these operators serving what appears to be the smaller user groups in the market.
- Option 4 – two towage operators, with one serving most of the port, including what appears to be the largest user groups (coal and LNG), and a smaller operator serving the residual customers.

The outcomes of PwC modelling supporting GPC's argument for maintaining an exclusive licence regime rely on an artificially partitioned market and on assumptions which are self-fulfilling and unrealisable.

The number and type of tugs under the four assumed options are presented in Table 2.

Table 2 Assumed towage market structure options

Option	Towage operator	Tug fleet (minimum requirements)	Tug fleet (current)	Total tugs
Option 1	Whole of port	5 * 80T 4 * 70T 2 * 50T	5 * 80T 5 (+1) * 70T	11
Option 2	LNG	5 * 80T 4 * 70T	N/A	15
	Rest of port	4 * 70T 2 * 50T	N/A	
Option 3	LNG	5 * 80T 4 * 70T	N/A	19
	Rest of port	4 * 70T 2 * 50T	N/A	
	Party A	4 * 50T	N/A	
Option 4	Rest of port	5 * 80T 4 * 70T 2 * 50T	N/A	15
	Party A	4 * 50T	N/A	

Source: PwC

The data presented indicates that Option 1 (whole of market) has the lowest unproductive time at 71%, compared to a range of 81% to 85% for the other three options (assuming one or more competitors serving defined market segments).

3.2.3 Modelling results

PwC applies its modelling assumptions to develop indicative total cost base estimates for each of the four options. GPC's 2017/18 Statement of Corporate Intent demand forecasts are used to convert the indicative total cost estimates into an indicative average cost per tug job.

PwC notes that these cost estimates are presented for comparative purposes only and that the absolute levels of the estimates cannot be relied on because certain costs have been excluded from the analysis.²⁷ Further PwC notes that its analysis does not extend to how costs would translate into actual towage charges, which would likely be differentiated based on vessel size, time and other factors.²⁸

Most of the modelling results are presented for 2018/19, the first year of the proposed exclusive licensing period. An indicative total cost base is also presented for 2026/27, the final year of the proposed exclusive leasing period.

Total indicative cost base estimates

The total cost base is broken down into the following major cost categories:

- Tug capital component
- Incremental tug base (reflecting the cost of establishing new landside infrastructure for tugs where more than one towage operator is in the market)
- Labour
- Maintenance
- Overhead.

PwC presents indicative total cost bases for each of the four options in 2018/19 and 2026/27. The differences between indicative total cost estimates across each option do not vary materially between 2018/19 and 2026/27.

²⁷ As previously noted, the only costs included in PwC's modelling are costs that is considers are likely to be materially different across each of the four options.

²⁸ PwC (2018), p. 42.

As noted above, the absolute indicative total cost levels are not representative of the total costs likely to be incurred by towage operators. Rather, PwC emphasises the comparative nature of its modelling outputs.

In this regard, the model results indicate that a single operator (Option 1) will deliver the lowest towage cost to serve the whole port (using 11 tugs). Of the other options, the modelling indicates that the total cost to serve the whole port would be around:

- 32% higher under Option 4 - two operators using 15 tugs, including one operator solely serving LNG trade);
- 51% higher under Option 2 – two operators using 15 tugs; and
- 85% higher under Option 3 – three operators using 19 tugs, including one operator solely serving LNG trade.

3.3 Concerns with modelling results

It is possible a single operator is the most efficient tug resourcing option at a single point in time (i.e. around the time of the tender, depending on the basis for awarding the successful tender and the capacity requirements relative to market need).

However, PwC's conclusion would be reached in the many markets which involve reserve capacity in the delivery of a service (which is very common). This is because the only demand uncertainty faced by a single provider is the uncertainty of market demand, but with multiple service providers each faces uncertainty about market share as well as uncertainty about market demand; competition in the market often implies greater excess capacity than monopoly. This is not generally considered an adequate reason for favouring monopolies.

PwC's restrictive and unrealistic assumptions significantly magnify this effect in its modelling, including:

- the adoption of rigid market segmentation and the failure to consider market based mechanisms to improve tug utilisation, such as cross hiring arrangements
- the adoption of a static cost comparative approach
- failure to consider the impact of uncertain demand
- failure to consider low cost entry strategies

The limiting assumptions applied in the cost to serve modelling effectively invalidate the size of the indicative cost differences across options presented by PwC.

3.3.1 Rigid market segmentation

In terms of PwC's cost build up, the most obvious concern about the size of the cost differences across options is that they are driven by the assumption that each towage operator serves a defined market segment and must procure sufficient new (as opposed to second hand) tugs to do so, including because there is no cross-sharing of tugs amongst service providers to manage peak arrivals.

The PwC report does not take into consideration opportunities for cross-hiring between tug providers in a port on the basis that an open market at the Port of Gladstone could drive service providers into:²⁹

Co-operative and, or, cross-hiring arrangements to be established between the two (or more) providers, suggesting a structure more like a joint venture arrangement than a contestable market.

However, co-operative or cross-hiring arrangements in ports do not have the characteristics of joint ventures. Each operator maintains its own commercial relationship with its customers, and operators compete with each other for those customers. The arrangements are confined to agreements for the physical delivery of those services, and are used to manage "overflow" conditions in which it is efficient for a firm to assign a towage job to a competitor - the competing firms do not jointly perform jobs. Additionally, Svitzer advises that cross-hiring arrangements are common in Europe.

Hence, in PwC's modelling, Options 2 to 4 (i.e. involving more than one operator) share a common feature: they assume a partitioned market in which the activities of each operator are confined to one or other of the resulting market segments.

This means each towage operator is assumed to have access to sufficient tug boats to service its designated market segment independently, further emphasised by an assumption that different towage operators do not cooperate in servicing peak towage demand.

Essentially, these assumptions mean that what PwC is testing is the relative efficiency of:

- a single exclusive licence, under which the licensee has access to the total port market

²⁹ PwC, p 33.

- two or more exclusive licences, under which each licensee has exclusive access to a defined segment of the total market.

The difference between the multi-operator options analysed reduces to a difference in exactly how the market is partitioned. This is very different from a genuine open entry environment, characterised by the interplay of market participants on the demand and the supply sides of the towage services market including:

- each operator would configure its operations to serve its customer base target efficiently – indeed, an important dimension to competition is that it is a process of discovery of the most efficient operating model amongst competing operators to satisfy customer preferences
- each party's operations would adjust as demand conditions change and new commercial opportunities emerge
- addressing overflow work by subcontracting the physical delivery of services, as is currently done in several ports in which more than one operator is active. Such an allocation of overflow work occurs in other Australian towage markets, including in the provision of C Class towage services at the Port of Fremantle, where towage services are from time to time, sub-contracted between Svitzer and Total AMS. This example is testament, in itself, to such a competitive port model working sustainably over an extended period of time.

Effectively, for all options with more than one operator, each towage operator is over-capitalised. The cost of this over-sizing of towage fleets is then compounded by the addition of labour, maintenance and overhead costs associated with the over-sized fleets.

3.3.2 Static cost comparative approach

The static nature of the cost comparison means that all dynamic market responses associated with more than one operator serving the Port of Gladstone towage services market are ignored. Hence, there is no assumed competitive response by the incumbent to a new entrant or threatened entry, including whether it be to reduce its capital or labour costs, or that the new entrant has a lower cost base (for example, more efficient labour and maintenance practices or a lower overhead pool). In other words, the productive, allocative and dynamic efficiency dimensions of contestability and new entry have been ignored in PwC's analysis.

Moreover, it is assumed that the purported cost inefficiencies are nevertheless recoverable from towage service users within the port. In our view, a more reasonable assumption would be that any cost inefficiency is unlikely to be tolerated by a

customer base when there is a choice of competing towage operators. In a market environment, the value of tug boats, a very significant cost, is driven from the outcomes of competition and the next best use of the tug boat (say, at another port), not the other way around as is assumed in the PwC analysis.

3.3.3 The impact of uncertain demand

PwC's demand forecasts are based on the number of tug jobs required to service vessels entering the Port of Gladstone between 1 July 2018 and 30 June 2027. The forecasts are consistent with GPC's 2017/18 Statement of Corporate Intent.

In the forecast, total demand increases from 9,099 in 2018/19 to 9582 in 2026/27, a compound annual increase of 0.65%.

PwC indicates it has allocated this total forecast demand to towage operators under each of its four options by apportioning the volume of trade forecast at each wharf centre that is attributable to different user groups.

As discussed in section 5 below, based on the very large discrepancy between actual and GPC's forecast demand over the current exclusive licensing period, there is significant doubt as to whether aggregate and individual user group demand can be reliably forecast for the 8 year duration of GPC's proposed extension of exclusive licensing at the port. This is primarily because the largest trades serviced by the port, export coal and export LNG, are subject to economic conditions in Australia's major trading partners and international markets more broadly, as well as the international competitiveness of these trades, and in the case of LNG particularly, the availability of gas.³⁰

PwC does not consider the implications of uncertain demand or the efficacy of alternative arrangements for the provision of towage services in light of uncertain demand, notwithstanding the clear evidence of the forecasting error for the previous exclusive dealing period.

In essence, it is by no means clear that the modelling PwC has undertaken contemplates the range of realistic scenarios that may prevail. Moreover, there is no basis to assume that an exclusive licencing model will actually deliver the technically efficient configuration of tug capacity, which itself will be highly variable over time or an efficiently delivered cost of tug capacity.

³⁰ It is acknowledged that mechanisms will be incorporated into the tender to protect the successful tendered if the exclusive licensing proceeds. We argue in section 5 that this uncertainty undermines the desirability of the Demsetz auction from an economic perspective.

By not modelling an open market entry option, PwC's analysis does not recognise the potential for towage operators to change the number of tugs they employ in response to competitor's behaviour, including to re-locate a tug to reduce unproductive time of the whole fleet, recognising the relatively mobile nature of these capital assets. All else being the same, it is expected that a market based setting will provide for a more efficient adaptation in this uncertain environment.

3.3.4 Failure to consider low cost entry strategies

PwC assumes that all market participants have the same cost structure, so that the only difference in cost outcome turns on tug utilisation levels. An implication of this approach is that it assumes that no market participant will achieve operational efficiencies or will develop innovative strategies that will provide a cost/service quality mix that better meets customer need than those proposed at the beginning of the exclusive licence period. In our view, an important dimension to a competitive process is that it is a process of discovery of the most efficient operating model amongst competing operators to satisfy customer preferences.

In addition, PwC's assessment focuses on fixed costs, not sunk costs; for the reasons we outline in section 4, it is the latter which is most important to a consideration of whether an exclusive licence is desirable.

3.3.5 Alternative modelling assumptions

We have identified plausible alternative assumptions associated with the presence of more than one towage operator serving the Port of Gladstone market. These are discussed below.

Tug fleets

Towage services in Gladstone can be split between two major market segments, harbour towage (of about [REDACTED] producing annual revenue of about [REDACTED]) and LNG terminals (of about [REDACTED] producing annual revenue of about [REDACTED]).

Specific entry strategies are considered in chapter 4 of this report. There are 3 key areas which each cause the PwC's assessment to materially overstate the advantage of a single provider at the Port of Gladstone:

- Assumptions around the willingness of competitors to perform overflow work for one another on an arms length basis (refer section 3.3.1 above). Svitzer advises that relaxing the assumption around overflow work materially reduces and may

eliminate the diseconomies of competitive towage provision at the port suggested by PwC.³¹

- The deployment of different operating models, such as utilisation of second hand tug boats which reduce the capital cost of entry.
- The capacity of entrants to optimise the offering for their market circumstances. An entrant can also optimise the capacity of its fleet. Not all boats would need to have a capacity of 70 tonne bollard pull; for example, the fleet could include some smaller tugs (such as two with a capacity of 50 tonne bollard pull) and still achieve an efficient scale.

PwC's modelling also fails to consider a rationalisation of assets in the port and a natural harmonisation of competing tug fleets over time under the market structure options where more than one towage operator is in the market.

Maintenance

Maintenance costs are largely driven by the size and composition of the tug boat fleet. If competitive supply could be achieved with of no increase in total tug fleet size, it also is reasonable to assume that the total cost of maintenance for two separate yet equivalent fleets would be no higher than under the status quo. That is, a total fleet of 10+1 tugs under a single operator would equate to similar maintenance costs to a total fleet of 11 tugs across 2 providers. A modest increase in tug boat numbers under a competitive model can be expected to have a corresponding impact on maintenance costs.

Further, the potential for a new entrant's maintenance to be more efficient than the incumbent's maintenance is not considered in PwC's modelling but reasonably could have been part of the analysis.

Labour

In a multiple towage provider environment in the Port of Gladstone, an optimised labour footprint would become an imperative, not just at the time of the tender but over time as well. This has been evidenced in the competitive entries into the ports of Newcastle, Sydney, Melbourne and Brisbane where the market response over time was a reduction of the crewing and asset resourcing by the incumbent. A competitor also

³¹ This is based on the operating premise that any overflow work that occurs will be allocated between operators on a 'full job' basis; that is, an allocation of the full vessel movement to the competing towage operator in the case of a clash of work.

would consider more flexible crewing arrangements, using permanent part time or flexible non-unionised crew, which might reduce estimated total costs. This alternative assumption would be an aspect of dynamic analysis of new market entry rather than the static cost comparison approach adopted by PwC.

Overhead

PwC assumes that a second towage operator would need to replicate the allocated shore-side overhead footprint of the incumbent in whole or to a degree.

This may be a reasonable assumption for a greenfields towage entrant. However, an established towage operator would be able to leverage other operations to cluster its overhead footprint. An example would be Svitser's ability to rationalise its indirect labour in Gladstone with its other operations in Brisbane and Newcastle.

It is also a rule of thumb in the marine services market that a technical superintendent should be able to oversee a fleet of five tugs. This is demonstrated in Svitser's operations in Australian ports where, on average, it allocates a technical superintendent to 6 tugs.

Accordingly, a split of 10 or 11 tugs would reasonably be envisaged to not result in a duplication of the technical overhead contributions to the overall port.

Further, leveraging a wider footprint in the overall towage market in Australia could be reasonably expected in the case of an existing towage operator in the Australian market, allowing corporate overheads to be spread over a larger volume of tugs and tug jobs.

Interface costs

It is claimed in the PwC report that there are 'significant' costs for GPC to manage the interface if more than one towage operator is active in the port. The PwC report also claims that exclusive licencing brings:³²

financial and administrative benefits for both GPC and the Harbour Master which are enabled by having a single towage provider in the Port including ... the coordination of towage services between the Harbour Master and a single operator rather than multiple coordination points

³² PwC (2018), p.52. See also KWM (2018) Supplementary Submission, Attachment B, p.3.

However, Marine Safety Queensland (on behalf of Port of Gladstone) currently manages a Vessel Traffic Service (VTS) with multiple Lines/mooring operators that it coordinates. There are already 2 lines and mooring services providers in Gladstone, being Gladstone Port Services and Northern Stevedoring Services which need to be coordinated. Such service schedules are able to be administered via the QSHIPS booking management system. Accordingly, the incremental cost of managing 2 towage providers are unlikely to be significant.

Svitzer has advised that [REDACTED]
[REDACTED]
[REDACTED]. This is unlikely to exceed the costs associated with administering the exclusive licensing arrangement, particularly given the extensive measures outlined in the PwC report and the KWM supplementary submission.³³

Furthermore, in ports from which a towage operator has subcontracted the physical delivery of services (Brisbane, Newcastle, Port Botany and Melbourne), Svitzer has advised that it is not aware of any material reduction in, or avoidance of, costs to a port operator administering only one towage operator.

The size of GPC's claimed benefits should be questioned given the administrative burden imposed by exclusive licencing through the notification process, tender design, procurement, customer relations, and contract management through the life of the exclusive licence. Svitzer has advised that the cost of preparing for such a tender are in the order of [REDACTED] for *each* of the tenderers involved in the process.

3.4 Conclusion on PwC's modelling results

PwC's modelling results depend heavily on several key limiting and restrictive assumptions, including adoption of a rigid market segmentation and a static cost comparative approach that does not allow for adaptation to uncertain demand or arrangements that would reduce the need for reserve capacity. It also takes no account of the effect of an open market environment in enforcing and accelerating efficiency improvements and service innovation. In the context of an exclusive licencing arrangement of up to 8 years, these assumptions are inappropriate and provide a misleading picture of feasible comparative cost bases of towage operators under the identified market entry options.

³³ In essence, GPC will act as a quasi-regulatory body, which we explain in section 5.4.4.

PwC's conclusion would be reached in the many markets which involve reserve capacity in the delivery of a service (which is very common). This is because the only demand uncertainty faced by a single provider is the uncertainty of market demand, but with multiple service providers each faces uncertainty about market share as well as uncertainty about market demand. Competition in such markets usually implies greater spare capacity than monopoly. This is not generally considered an adequate reason for favouring monopolies.

Hence, it is possible a single operator is the most efficient tug resourcing option *at a single point in time* (i.e. around the time of the tender, depending on the basis for awarding the successful tender and the capacity requirements relative to market need). However, the exclusive licence is not for a point in time – it is for a period of up to 8 years and there is no question that a towage provider's incentives to improve efficiency will be sharper in an environment where an operator's relative efficiency is consistently tested in the market. In any event, PwC's restrictive and unrealistic assumptions (particularly regarding overflow work) significantly overstates the difference in cost between alternatives.

Most importantly, the PwC modelling invites one to overlook the reality that economies of scale is not the critical issue in determining the desirability or otherwise of exclusive licensing for the provision of towage capacity. Contestability theory highlights that it is the level of sunk costs and the level of committed demand necessary to induce entry that determines the optimal market structure.

4 Contestability in towage services

In this section we explore contestability theory and the extent to which entry into towage markets involves sunk costs. Even if it is the case that scale economies support a single firm (which we do not believe is the case for towage services at the Port of Gladstone), this is not a reason to award an exclusive licence in a situation where sunk costs are not significant.

4.1 Importance of contestability

The development of contestability theory in the 1980s provided new and important insights into the extent and effectiveness of potential entry in disciplining market behaviour.³⁴

Contestability theory focuses attention on the existence and extent of barriers to entry. In essence, with free entry (very low entry and exit barriers and equivalent access to technology) the threat of entry can exert competitive pressure and discipline on even a sole provider in a market equivalent to any number of actively participating competitors.

Hence, in the extreme, perfect contestability resembles perfect competition. Indeed, Baumol and Willig characterise perfect competition as simply a special case of perfect contestability, in which the production technology is such that the efficient size of the firm is small relative to the size of the market.³⁵

In a market that can be efficiently served by only a small number of firms, or even by a single firm because of economies of scale and scope, contestability theory highlights the critical importance of very low entry and exit barriers and of equivalent access to technology for delivering efficacious market outcomes without further intervention being required.

The benefits of perfect contestability are identical to those of perfect competition. A perfectly contestable market will provide essentially the same economic benefits as a perfectly competitive market. Importantly in the current context, this discipline can be

³⁴ For a detailed assessment of these insights by the developers of the theory, see Baumol, W. and Willig, R. (1986), Contestability: Developments since the book, *Oxford Economic Papers, New Series*, Vol 38, *Supplement: Strategic Behaviour and Industrial Competition*, pp9-36.

³⁵ 'Perfect competition is a special case of perfect contestability, and perfect contestability applies with equal force to circumstances where perfect competition is impossible because economies of scale are present. Because of this fact, and because contestability theory encompasses an endogenous determination mechanism from which any industry structure may emerge (depending on circumstances), we feel that it is an extension of the competitive model appropriate for use in the theory of industrial organisation.' Baumol and Willig (1986), p10.

effective even if there is only one incumbent firm because if it is not efficient then it faces a credible threat of new entry; that is, it has an incentive to perform efficiently and a discipline that prevents it “giving less and taking more”.

The model of perfect competition is important as a point of reference for the development of competition policy. But it is a theoretical ideal, not an empirical phenomenon: no real-world markets meet the exacting criteria (including perfect information) that define this model. Similarly, no real-world market meets the criteria of perfect contestability.

What matters is whether the market is workably or effectively contestable³⁶. In particular, it matters whether it is sufficiently contestable for the threat of entry to act as an effective constraint on the sustained exercise of market power by an incumbent. It has been shown that the presence of sunk costs for entry will not constrain the effectiveness of the threat of entry to discipline incumbents where contracts are of sufficient duration for the relevant sunk costs to be recovered.³⁷ This reflects the outcomes of rail haulage markets in Australia, as outlined in Attachment B.

This is acknowledged by the Productivity Commission in its review of harbour towage:³⁸

While such ‘perfect’ contestability (or, for that matter, ‘perfect’ competition) is not the norm, if capital and labour are reasonably mobile and not highly specific to a particular market, if production technology is widely available, and if regulatory barriers are low, then an incumbent will not be able to earn monopoly profits without encouraging entry.

This also has been recognised widely in the literature and practice of economic regulation, and has generally been dealt with through the articulation and use of the concept of effective or workable competition. In *Re QCMA*, the Australian Competition Tribunal noted the view of the US Attorney-General’s National Committee to Study the Antitrust laws:³⁹

³⁶ Here we follow Baumol and Willig in regarding perfect competition as simply one form of perfect contestability and, by extension, regarding a workably competitive market as a type of workably contestable market.

³⁷ Ross T (2004), Sunk costs and the entry decision, *Journal of Industry, Competition and Trade*, Bank Papers, 79-93. Stefanadis, C (2004), Sunk Costs, Contestability, and the Latent Contract Market, *Journal of Economics & Management Strategy*, Volume12, Issue1, Spring 2003, Pages 119-138

³⁸ Productivity Commission (2002), *Economic Regulation of Harbour Towage and Related Services*, Report No. 24, 24 August, p 81

³⁹ *Re QCMA* (1976) 25 FLR 169

The basic characteristic of effective competition in the economic sense is that no one seller, and no group of sellers acting in concert, has the power to choose its level of profits by giving less and charging more. Where there is workable competition, rival sellers, whether existing competitors or new potential entrants into the field, would keep this power in check by offering or threatening to offer effective inducements. Or again, ... the antithesis of competition is undue market power, in the sense of the power to raise price and exclude entry.

In summary, the great insight from contestability theory is that having a number of competitors simultaneously active in the market is not essential to the achievement of the desirable outcomes associated historically with perfect competition. Where an incumbent firm is the sole provider in a market, what matters is that it perceives its position in the market to be sufficiently threatened by potential rivals that it behaves as if those rivals were physically present in the market.

In this respect, the most critical consideration in determining whether a market is effectively contestable relates to the economic importance of sunk costs. If sunk costs are not material because of the nature of the assets and demand conditions, then as a default proposition the market is contestable. The next section considers the history of entry of towage providers into ports in Australia following which we consider the nature of that threat with respect to the Port of Gladstone, both from the perspective of possible entry strategies and the sunk costs involved in executing them.

4.2 Contestability in practice – some examples

Competitive provision of towage services has occurred at several Australia ports which are open to competitive entry by towage providers as described below.⁴⁰

4.2.1 Port of Eden

The Port of Eden in southern New South Wales is an open port for towage services. Svitzer has operated at the port since the 1960s and has two tugs servicing vessels calling on the Port. Eden recorded a total of 95 vessel calls in 2016/17⁴¹ and had a total of 178 tug jobs in calendar 2017.

⁴⁰ In general, towage contracts are normally made with the “masters, owners and operators” of a vessel. The principal commercial relationship is therefore between the towage provider and the vessel operator (i.e. the declared operator when a vessel is entered into the Vessel Traffic Service (VTS) at the port). These relationships often exist beyond the confines of a single port, which in turn provides significant opportunity and incentive for a towage provider to ensure its offering is competitive across the entire range of the ports that it operates in.

⁴¹ Port Authority of New South Wales <https://www.portauthoritynsw.com.au/port-of-eden/>

The provision of towage services at the port intensified with competitive entry in 2016 by Pacific Tug in competition with the incumbent firm Svitzer. Pacific Tug's entry occurred when it obtained the business of the Eden chip mill.⁴²

We understand that [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

4.2.2 Port of Bundaberg

Not unlike the experience in Eden, the provision of towage services at the Port of Bundaberg provides an example of where a customer has initiated new entry through negotiation with competing towage service providers. In 2014, Queensland Sugar Limited replaced Svitzer as towage service provider with Wide Bay Shipping Services,⁴³ which demonstrates the ease of entry by new firms to provide towage services, even in relatively less busy ports.

KWM (2018) Supplementary Submission⁴⁴ argues that the case of the Port of Bundaberg is "functionally equivalent to an Exclusive Licence, but where this arrangement is organized by a single dominant customer, rather than the Port Authority" (p.3).

As we discuss (see section 6.3.5), there is a significant difference between customers arranging their own towage services directly with a service provider and a third party such as GPC standing between the parties as a quasi-regulator.

For current purposes, the relevant consideration is that the relevant market was contestable, notwithstanding a relatively limited demand for tug jobs - there was no commercial impediment to the shipper contracting with the most competitive towage service provider.

4.2.3 Port of Newcastle

The Port of Newcastle had [REDACTED]
[REDACTED]. Newcastle is an open port for towage services which has seen a series of market entries and exits. For example, BHP provided towage services in the

⁴² <https://www.edenmagnet.com.au/story/4354262/future-of-tug-adrift-as-mill-changes-tack/>

⁴³ <https://www.news-mail.com.au/news/new-operators-set-sail-for-bundy-port/2372088/>

⁴⁴ KWM (2018) Supplementary Submission, Attachment B, p3.

Port from February 1994 to June 1999. PB Towage entered the port in 2013 and was acquired by Smit in late 2014.⁴⁵

Newcastle is a very busy port yet its market has not always supported more than one towage services provider. Currently, Svitzer performs SMIT's physical movements under a service level agreement with approximately [REDACTED] Newcastle tug jobs being SMIT jobs. Under these commercial arrangements, [REDACTED]

Indeed, Svitzer has indicated that [REDACTED]
[REDACTED]
[REDACTED]. We consider the impacts of competition at Port of Newcastle in more detail in section 6. These arrangements are mirrored at the Port of Melbourne and Port Botany⁴⁶ and more recently, the Port of Brisbane from February 2018.⁴⁷

4.2.4 Port of Fremantle

The Port of Fremantle currently has in effect three licences for the Port's C Class towage services, issued to Svitzer, Total AMS and Mackenzies Marine and Towage Services. Svitzer and Mackenzies operate two C Class tugboats each, while Total AMS operates three tugboats. The non-exclusive arrangements in Fremantle have operated for more than twenty years. Mackenzies is the most recent entrant, having begun its services in the port within the last five years, becoming a third player in the market following a long period of active competition between two incumbents. Figure 11 below depicts the current shares of this market.

⁴⁵ <https://www.offshoreenergytoday.com/smit-lamnalco-buys-pb-towage-australia/>

⁴⁶ http://www.tugtechnologyandbusiness.com/news/view/smitlamnalco-outsources-to-svitzer_38728.htm

⁴⁷ <https://www.thedcn.com.au/tug-crew-jobs-on-the-line-as-smit-lamnalco-and-svitzer-extend-towage-pact/>

[REDACTED]

[REDACTED]

[REDACTED]

There are subtle differences between each port's classification of tugs based on the specific requirements of the port. It is understood that the C Class services at Fremantle are essentially the same service as that which is licenced exclusively at the Port of Gladstone for the harbour towage services.

However, the services at Fremantle are provided using smaller vessels of lesser bollard pull and width, these characteristics being preferable for smaller or more sensitive vessels needing towage assistance in the Port of Fremantle. The tugboats can also be used for other work in the port, such as personnel and stores transfers, dredging support and marine project work, construction support and hydrographic work. The provision of this latter scope of services is on an as 'needs basis', with harbour towage being the core business activity to which the vessels are deployed.

4.2.5 Port Hedland

Port Hedland is an example of customer-initiated new entry into a port using a non-exclusive licence.⁴⁸ Port Hedland is the largest port in Australia by volume of cargo. BHP and FMG both export iron ore through Port Hedland.

Fortescue Metals Group (FMG) was awarded a licence at Port Hedland in May 2016. FMG has made a strategic investment in a tug berth infrastructure – this was seen by

⁴⁸ The actions of FMG at Port Hedland stand in contrast to the statement in KWM's supplementary submission that "it is only in smaller ports, or where there is a single or dominant customer, where customers have encouraged the entry of an alternative towage provider". See KWM (2018) Supplementary Submission, Attachment B, p.3.

FMG as a desirable investment in driving the best competitive outcomes from which it would benefit. FMG's entry to the towage services market in Port Hedland will end BHP's position as the only towage services provider for the port.

FMG will provide towage services at Port Hedland using up to nine tug boats from 2019.

FMG ran a competitive tender process to obtain a manager of its towage services. Kotug was successful and is also supplying three out of the nine tugs (chartered to FMG). Kotug appointed a local towage service provider, Westug (now Engage Marine), to subcontract manning of the tugs and manage operations in Port Hedland.⁴⁹

Contrary to KWM's assertion that "Svitzer has provided no tangible evidence of the extent to which the threat of market entry is credible or meaningful" these examples illustrate that competitive entry can occur at small, even very small, ports as well as larger ports. The Ports of Eden, Newcastle, Fremantle, Bundaberg and Port Hedland demonstrate that towage service providers can and do enter different markets that provide different opportunities, even for limited periods of time, and do so in response to customer need.⁵⁰

KWM's supplementary submission⁵¹ dismisses the relevance to the present case of competitive entry in Eden and Bundaberg on the ground that they "are not reliable comparators to the significantly larger and more complex Port of Gladstone". KWM argues that competition in small ports has no implications for the possibility for competition in large ports. However, this argument is inconsistent with another KWM argument that the threshold for efficient entry of a second provider "could be 7000 or 11,000" tug jobs a year. If scale economies are indeed so significant, how can it be that entry can occur at these smaller ports?

Additionally, KWM's supplementary submission states:⁵²

Svitzer has provided no tangible evidence of the extent to which the threat of market entry is credible or meaningful in constraining the commercial behaviour of an incumbent towage provider...

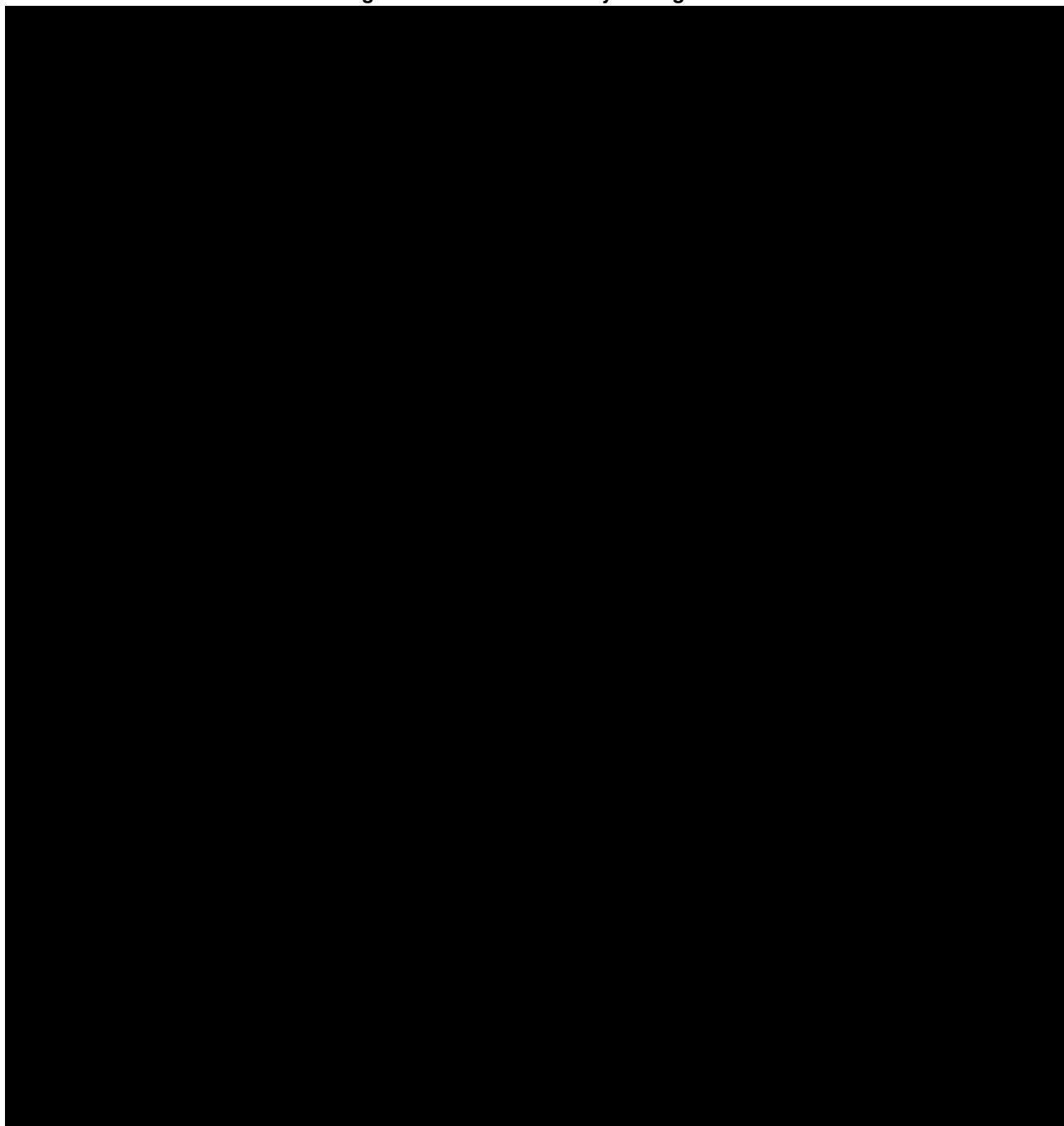
⁴⁹ http://www.miningweekly.com/article/fortescue-awards-port-hedland-towage-operator-contract-2017-12-06/rep_id:3650

⁵⁰ Additionally, the Gilbert + Tobin submission of 11 June 2018 outlines entries into the towage services market at Brisbane, Botany, Melbourne.

⁵¹ Attachment B, p.10

⁵² P 10

Table 3 Port of Gladstone towage services – market entry strategies



4.3.2 Entry costs

The single largest cost associated with entry is the cost of the tug itself. However, tug acquisition is unlikely to be a barrier to entry for established operators. There is a range of financing options for the acquisition of tugs with some manufacturers (such as Damen) offering buy back arrangements with competitive financing and bareboat charters.

What matters from the perspective of sunk costs is whether, in the event that entry is unsuccessful, a loss will be able to be averted through the alternative deployment of the tug at another port or, at worst, on the disposal (whether by sale or lease) of surplus tugs. For the reasons outlined in section 4.3.3 below, we do not believe that disposal or inability to deploy surplus tugs presents a material risk for prospective entrants to the Port of Gladstone.

With the exception of berth infrastructure, Svitzer has estimated prospective entry costs that may be sunk as set out in Table 3 above.⁵³ It is not that there are no sunk costs, but rather that they are not sufficiently material to deter new entry into Gladstone's towage services market.⁵⁴

Infrastructure and other costs

There are infrastructure related costs associated with bringing a tug into service in a port. Despite the claim in the submission by KWM on behalf of GPC that inefficiencies arise from additional berthing facilities, it is not uncommon for an entrant to establish its own infrastructure at a port. Svitzer has done so in Port Kembla, Whyalla and Darwin.

The largest single cost will be the development of additional tug pens, to the extent that these are required. Berth infrastructure, including tug pen, may exceed [REDACTED]/tug in Gladstone, especially having regard to gangways and fendering and the provision of power and other ships services. For entry to Gladstone, these costs will therefore vary with several factors, particularly, the scale of entry.

However, it is entirely possible that the cost of the tug pen would be met by the port authority with the entrant entering a lease on equivalent terms to the incumbent. KWM states that the "current tug base [at Gladstone] is owned by GPC and leased to Smit Lamnalco".⁵⁵ That need not be the case at the end of the exclusive licensing arrangement.

Based on costs advised by Svitzer and [REDACTED]

[REDACTED]

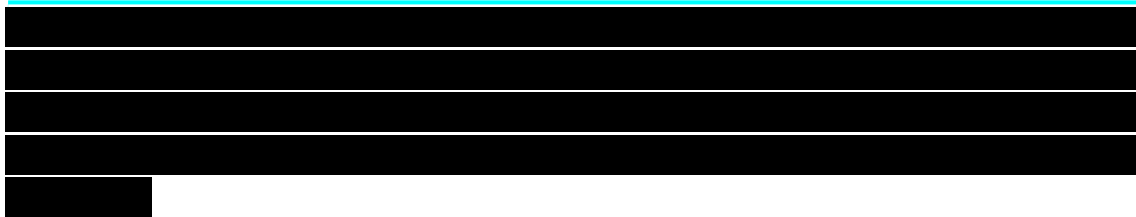
[REDACTED]

[REDACTED]

⁵³ The cost of meeting ongoing port authority requirements for a licence fee, berth lease and bank guarantee (if required) might range between [REDACTED] per annum but must be incurred by both the incumbent and the entrant.

⁵⁴ KWM (2018), Supplementary Submission, Attachment B, pp.12-13.

⁵⁵ KWM (2018) Supplementary Submission, Attachment B, p.7.



Development of a customer base

In regard to the observation that incumbents have established relations with customers which new entrants will need to overcome, Ergas has observed that:⁵⁶

such advantages are merely a form of differential efficiency, and the returns on them are the returns to the investments securing such efficiency requires.

Although the Productivity Commission acknowledges this argument, it concludes that:⁵⁷

Nonetheless, an equally efficient new entrant is likely to incur some costs to attract a share of the market away from the incumbent.

This observation is not only unexceptionable but also inconsequential. Every transaction, and every proposal to transact, involves some cost. Every entrant into every new market, no matter how competitive – every new café, every new hairdressing salon, every new lawn mowing service – needs to make efforts to make themselves known to and accepted by clients that established competitors no longer have to make to the same extent. The issue is not the existence of such costs, but their materiality, and their materiality depends on the prospects for recovery of such costs.

Further, in a workably competitive market, it is this threat of new entry that provides the greatest discipline on the incumbent to provide the best possible service and prices to its existing and new customers. In other words, there is an efficiency enhancing dimension to the competition for customers that will be considerably weaker under an exclusive licensing arrangement after the tender process is completed and the period of exclusivity has commenced. Markets only operate as a process of discovery where participants and aspirants invest in discovering ways to better meet customer need.

Indeed, the clear history of contestable transport markets in Australia is that it is customers who generally invite entry. In doing so, customers structure their

⁵⁶ Ergas, H., (2001), *Stirling Harbour Services v Bunbury Port Authority: A Review of Some Economic Issues*, paper prepared for the Australian Business Law Workshop, 11 May.

⁵⁷ Productivity Commission (2012), p87.

procurement strategies to facilitate entry by providing a commitment that is of sufficient substance and duration to ensure potential entrants are not disadvantaged against the incumbent (see Attachment B).

Clearly the costs of establishing a presence in a market needs to be contrasted with the cost of running a tender process – both from the port’s perspective as well as each of the bidders. Svitzer advises that the costs of tendering for an exclusive licence could range between [REDACTED] for each bidder. We are not aware of the costs of the port running the tender process.

4.3.3 Exit costs

Losses on resale of assets

In its submission to the Productivity Commission Inquiry, the ACCC stated that the “international second-hand towage/charter market is very specialised and very small”. However, the Productivity Commission concluded that:⁵⁸

While the Australian market in second-hand tugs generally will be small and prices possibly volatile from year to year ... there appears to be a reasonably large second-hand market for tugs into which an exiting firm could sell its tugs. However, few spare second-hand tugs are located in Australia and hence transport costs to the point of sale would be incurred.

Thus, exit costs include the risk of low prices for tugs, the transactions costs of sale (principally brokerage) and transport costs to the point of sale. However, there are many options for an operator to minimise exit costs, particularly in the context of the foreseeable future given the growth in the towage services market in Australia. For example:

- it is not unusual for the towage operator departing a port to sell or bareboat lease its fleet at that port to the remaining towage operator at that port. In this instance, the costs of brokerage and transport costs does not arise
- deployment at another port by the current owner – which involves some transport costs for that towage provider but no brokerage. Svitzer estimate that the costs of relocating a tug from Gladstone to another Australian port are likely to range between around [REDACTED] (Brisbane) to [REDACTED] (Fremantle). In this respect, the growth in demand for towage services in Australia ameliorates risk for an owner

⁵⁸ Productivity Commission (2002), p.p.84-85.

- there is a range of financing options for the acquisition of tugs with some manufacturers (such as Damen) offering buy back arrangements with competitive financing. The lessee's requirements in such a case will depend on the terms of the lease
- demand for towage services is increasing due to the increasing numbers of port visits – this means that a tug that is surplus at one port is very likely to find alternative deployments within Australia whether on a sale or bareboat lease basis. There remains the option to sell or bareboat lease a tug to an overseas buyer.

Accordingly, several exit strategies will not involve the exiting towage provider incurring any brokerage costs. Where brokering costs are incurred they are unlikely to be significant. The Productivity Commission quotes a submission from Adsteam indicating that brokerage would be in the vicinity of 2.5% to 5% of the sale price. Svitzer advises that in 2017 brokerage is in the order of 2-3%. These estimates are high compared to the indications of brokerage rates available from other sources:⁵⁹

Sale and Purchase (S&P) shipbrokers traditionally earn 1% of the sale value of the vessel...Sometimes shipbrokers will agree to cut their own commissions in order to effect a sale (or a charter), particularly in difficult markets.

However, relatively low average sale value for a tug relative to a vessel may lead to higher percentage commissions on these transactions.

Moreover, and very importantly, it will often be the case that tugs that become available through changes at a port will be more valuable in an alternative use for the current owner. It is clear competitive entry, even at smaller ports, has been facilitated by a former incumbent towage provider finding the highest value use of towage capacity through entry in another port. This in turn highlights the importance of "open" ports for towage services. An unintended consequence of exclusive licensing arrangements is that the port becomes closed to opportunistic entry and in so doing increases barriers to exit for towage providers operating in other ports.

Redundancy payments on exit

A company exiting a market may, in certain circumstances, be liable for the payment of redundancies to its crews. This need not always be the case. Under some circumstances, the exit may be achieved by a sale to another towage company, who

⁵⁹ New York Shipbrokers, *Shipbrokers' Commission and Shipbrokers' Brokerage Fees*, <http://newyorkshipbrokers.com>.

opts to retain some of or all the crew, and agrees to recognise an employee's service with the old employer for redundancy entitlements.⁶⁰

However, it is our current understanding that the usual course of events in Australia is for the exiting company to make redundancy payments. If this is correct, it is reasonable to expect that a potential entrant would expect to be liable for redundancy payments if it later decided to exit the port.

Redundancy payments will be based on the relevant enterprise agreement – assuming that crews receive four weeks' pay for each year of service up to fifteen years, a crew of 3 with 3 years' service would receive 12 weeks' pay each, a total redundancy payout of approximately [REDACTED]/crew.

Other demobilisation costs

Set out below are estimated demobilisation costs – noting that to a large extent that demobilisation costs will be a function of the scale of operation. Svitzer advises that the cost of demobilisation would include:

- removal of hardware and equipment, labelling and branding
- transport of spares - critical spares are usually kept near site and need to be removed and relocated
- office components – removal of office fit out and make good.

Svitzer estimates that the cost of demobilisation would involve between [REDACTED] depending on scale and site specific matters.

Summary

There is no reason to believe that exit costs are material in the towage industry, at least for the foreseeable future. Moreover, such costs would be borne by both an incumbent as well as an entrant, and as such, they do not present a barrier to entry.

4.4 Summary

The estimated cost of entry to Gladstone depends heavily on the scale of entry, the sourcing of tug capacity strategy and the entrant's strategy.

⁶⁰ Fair Work Commission (2017), *Employee Entitlements on Transfer of Business*, accessed on website of the Fair Work Commission.

However, it is not unrealistic that the sunk costs involved in entry, which can rapidly lead to the entrant having capability to compete head to head with the incumbent, would be in the vicinity of [REDACTED], noting that the capital cost of securing tugs is unlikely to represent sunk cost because of tugs' mobility and that the quantum of sunk costs will be sensitive to the need for the entrant to finance the establishment of tug pen(s). It should also be noted that if there are good prospects of recovery of the fixed infrastructure costs then their 'sunk' nature is not a constraining factor from an economic perspective.

Exit costs will include loss on the sale of tug boats (which we believe is unlikely to be material given projected growth in the Australian market), redundancies and minor demobilisation costs. The prospect of incurring exit costs affects both incumbents and entrants and as such do not present barriers to entry.

These costs, although not insignificant, do not present material barriers to entry for the major firms operating in the industry and so permit the design of a range of plausible strategies for contesting the Gladstone market – the sunk costs are likely to represent 1-3% of expected revenue over 5 years. These findings are consistent with Australia's history of competitive entry into harbour towage markets (as discussed in section 4.2). We therefore conclude that there are no material barriers to entry to the towage services market in Gladstone that materially restrict the contestability of that market.

5 Exclusive licensing

In this chapter, we consider the economics of franchise bidding. This provides the theoretical and contextual basis for our critique of exclusive licensing of harbour towage services.

5.1 False dichotomy – competition for and in the market

Although the idea of franchise bidding⁶¹ has a long history,⁶² the contemporary interest in it as a solution for (or alternative to) regulation of natural monopolies is usually attributed to an influential 1968 paper by Demsetz and term ‘Demsetz auction’ or ‘Demsetz-Chadwick’ auction has been used to describe a competitive bidding process.⁶³

A Demsetz auction is in effect a means of ensuring ‘competition for the field or market’ in contrast with the standard concept of ‘competition on the field or in a market’. The predominant interpretation of Demsetz’s paper is that a competitive auction can replace regulation of a natural monopoly.

However, Demsetz’ paper has comparatively little to say about franchise bidding by a public body such as the GPC, and what he does have to say about this is concerned with the appropriate pricing of scarce public resources, such as easements.⁶⁴ The main contribution of Demsetz’ paper is that, even in the presence of economies of scale, market processes can lead to both production at efficient levels and prices that reflect average costs⁶⁵.

Instead, the bidding process that Demsetz describes is one that is conducted in an open market by market participants themselves, not intermediaries such as GPC in a quasi-regulatory role:⁶⁶

⁶¹ Franchise bidding is a term used in the economic literature to describe a competitive bidding mechanism to provide for the exclusive right to supply a good or service, such as the exclusive licensing arrangement proposed by GPC.

⁶² Henry Ergas and his co-authors trace the idea back to Chadwick in 1859. Ergas, H., Fels, T., and Soon, J., (2004), Exclusive Licensing in Harbour Towage, *Review of Network Economics*, Vol 3 No 2, p.151.

⁶³ Demsetz, H., (1968), Why regulate utilities?, *Journal of Law and Economics*, Vol 11 No 1, pp55-65.

⁶⁴ Demsetz (1968), pp. 62-63.

⁶⁵ Demsetz deliberately and explicitly set aside the question of marginal cost pricing because it “was of secondary importance to a main objective of my paper, which was to demonstrate that the theory of natural monopoly-and, more generally, the asserted inverse relationship between industry concentration and competition-errs in neglecting an important role played by rivalry in the mitigation of monopoly power”, Demsetz, H. (1971), On the Regulation of Industry: A Reply, *Journal of Political Economy*, 79, p356.

⁶⁶ Demsetz 1968, p57. That the “buyers” to whom Demsetz is referring are the market participants themselves rather than a regulatory or other agency acting on their behalf is made clear a little later in the paper when he discusses the potential problem of collusion between suppliers. “Moreover, if we are willing to consider the possibility that

Let prospective buyers call for bids to service their demands. Scale economies in servicing their demands in no way imply that there will be one bidder only. There can be many bidders and the bid that wins will be the lowest. The existence of scale economies in the production of the service is irrelevant to a determination of the number.

The process Demsetz describes is similar to that undertaken by individual large users of above rail services, such as mining firms or agriculture businesses, who create competitive tension among above rail service providers by using procurement processes strategically to obtain their required services through long term contracts at efficient prices and acceptable non-price terms and conditions (see Attachment B). As we note above, the users of towage services in the Port of Gladstone are of very similar sophistication and financial capacity to those firms which procure the rail transport of coal to the port (and, in some cases, might be the same firms).

5.2 Franchise bidding in the transport sector

Franchise bidding – the process leading to the issue of an exclusive licence - has been used in other Australian transport markets that share some similarities with towage. In our view, although franchise bidding is a strategy with potential to increase the efficiency of some transport markets, it is not suited to the pursuit of that outcome in harbour towage markets.

Concern with natural monopolies in transport, and discussion of the appropriate policy response to their existence, has a long history. By the late nineteenth century, the prevalence of natural monopoly characteristics in transportation was well-entrenched and generalised, and Ely could write that:

there is great economy and convenience in the conduct of the transportation ... by those operating on a vast scale ... and this gives to that industry its inherent and irresistible impulse toward monopoly⁶⁷.

collusion or merger of all potential bidding rivals is a reasonable prospect, then we must examine the other side of the coin. Why should collusion or merger of buyers be prohibitively costly if an infinite or large number of bidding rivals can collude successfully? If we allow buyers access to the same technology of collusion, the market will be characterized by bilateral negotiations between organized buyers and organized sellers” (p.58).

⁶⁷ Ely, R.T. (1886), *Social studies*, *Harper's New Monthly Magazine*, 73 (436): 571-578, quoted in Mosca, m., (2006), *On the Origins of the Concept of Natural Monopoly*, December, p.13. (Earlier versions of Mosca's paper were presented at the III annual meeting of Storep (Associazione Italiana per la Storia dell'Economia Politica) in Lecce (Italy) in June 2006; at the 2006 annual meeting of HES (History of Economics Society) in Grinnell (USA) in June 2006; at the Department of Economics, University of Lecce (Italy) in July 2006, at the meeting of the Association for Public Economic Theory (PET06) in Hanoi (Vietnam) in August 2006.)

These perceptions led to a widespread appetite for government intervention in the transport industry. This intervention took several forms, including direct provision of transport services and infrastructure, control of entry and regulation of rates charged by transport operators. This intervention progressively expanded during the first half of the twentieth century. However, beginning in the United States in the 1970s, the later years of the century saw a global swing to reduced intervention, though the privatisation of public entities and deregulation of rates, routes and service requirements:

Attitudes towards the regulation of industry have changed considerably since the mid-1970s. Whereas prior to then the consensus view was that, because of the scale and frequency of market failures, it was important for government to take an active role in regulating industry, since then there has been a gradual withdrawal of the state from regulation and control.⁶⁸

In Australia, as in many jurisdictions, this movement has not meant government's complete withdrawal from the economic regulation of the transport industry. But the means and the intensity of regulation in different sectors of the transport industry have differed greatly. In some instances (for example, the regulation of rail infrastructure), regulatory intervention remains extensive and detailed. In others (for example trucking operations) economic regulation has been abolished completely.⁶⁹

This has been considered appropriate because both the structure of the markets and the policy objectives have been different in different sectors.

Microeconomic reform of transport industries has had the objective of increasing the effectiveness of competition in the provision of transport services. Franchise bidding has played a role in this reform process, but it has been largely confined to two sectors:

- Transport infrastructure, including both privatisation of existing infrastructure and opportunities to develop new infrastructure such as toll roads; and
- Urban passenger transport, such as tram and bus services.

Franchise bidding is suited to these sectors because competitive entry and a dynamic tussle for the market, which may or may not eventually be resolved by the exit of one

⁶⁸ Button, K. and Pitfield, D. (1991), *Transport deregulation: an international movement*, MacMillan, London.

⁶⁹ Forsyth, P. (1992), Transport deregulation in Australia: an interpretation in terms of private and public interest theories, Department of Economics, ANU, Paper presented at the 1992 Australian Transport Research Forum (ATRF), accessed on the conference website, <http://atrf.info/papers/1992/>. The contestability of regional airline routes was demonstrated in Starkie, D and Starrs, M, (1984) Contestability and Sustainability in Regional Airline Markets, *The Economic Record*, Volume 60, Issue 3, Pages 274-283

of the contestants, is either infeasible (usually the case for transport infrastructure) or considered to be socially undesirable (often considered to be so for public transport).

Neither of these conditions applies in the market for towage services.

Transport infrastructure consists of high sunk cost assets for which there are no alternative uses of comparable value. That is, the costs of entry and exit are very high (as demonstrated by the failures of toll road firms in Brisbane and Sydney to secure sufficient revenues following which the assets were sold for prices well below their construction costs⁷⁰). Given those characteristics, the use of bidding processes to allocate franchise rights to build own and operate a toll road to contractually defined specifications, for example, is a prudent means of seeking an efficient provision of services.

On the other hand, towage service assets (essentially tug boats) are highly mobile so their owners may move them to other markets or sell them. Therefore, although the costs of market entry are not insignificant, most of those costs are not sunk because they can be recovered on exit.

Open competition in urban passenger transport is often regarded as socially undesirable because of service coordination and safety regulation problems affecting the movement of very large numbers of people. Under these conditions, bidding for term-limited franchises provides a means of creating competition for service provision while maintaining (if not improving) service standards at an efficient cost. For example, Victoria's Auditor General in his 2005 report on the 1999 franchising of Melbourne train and tram services observed that:⁷¹

the 1999 franchise agreements aimed to improve service quality, increase patronage, minimise long-term costs to the taxpayer, transfer risks to the private sector and maintain safety standards.

In contrast, towage services are provided to a relatively small number of commercial entities with a sophisticated understanding of those services who therefore can negotiate effectively on their own behalf.

Further details on contestability in the Australian transport sector are discussed in Attachment B of our report.

⁷⁰ See for example <https://www.theaustralian.com.au/business/companies/government-wins-battle-for-bankrupt-clem7-tunnel/news-story/82f181047d67f1684cf5ae472af3ee21?sv=b9371562d7256a74b55b9289a9a35c09>

⁷¹ Auditor General Victoria (2005), *Franchising Melbourne's Train and Tram System*, Victorian Government Printer, September, p.17. <https://www.parliament.vic.gov.au/papers/govpub/VPARL2003-06No154.pdf>

We turn now to a discussion of the problems with franchise bidding in the context of an exclusive licence for towage service provision continuing to apply at the Port of Gladstone.

5.3 Context of proposed exclusive tender

KWM and PwC have disclosed in their respective submissions that the tender process will have the following two stages:

- Expression of Interest and Tender - Construct and Recommendation, which itself consists of -
 - Expression of Interest, which is advertised nationally to attract respondents from whom firms will be selected for the Invitation to Tender stage⁷² ; and
 - Procurement execution, in which Invitations to Tender are issued, tender responses are evaluated and a preferred bidder recommendation formulated; and
- Exclusive Towage Licence - Approvals and Execution, in which the exclusive licence is to be executed by the preferred bidder, approved by GPC's board by 28 September 2018, then submitted to GPC's Shareholding Ministers for their approval.

Although, GPC has yet not provided detail about the tender documents, the PwC report suggests that there should be:⁷³

- at least three tenderers;
- a defined technical, safety and other service requirements;
- a framework for the proposal of commercial terms;
- defined governance arrangements; and
- details on supporting Port assets and services.

In particular, PwC suggests that the frameworks for commercial terms and governance should:⁷⁴

⁷² KWM's advice of 18 May 2018 to the ACCC states that QTenders will open the responses to the call for expressions of interest but does not state who will assess the responses to select firms for the Invite to Tender stage.

⁷³ PwC (2018), pp.53-55.

⁷⁴ PwC (2018), p.53, p.55

enable the towage provider to set towage charges such that expected revenue from the provision of towage services is at least sufficient to meet the efficient costs of providing towage services, plus a rate of return that appropriately reflects any commercial risks associated with towage provision at the Port

...

[include reporting] on financial and non-financial performance ... to allow the Port to assess and ensure compliance with the Licence, and to allow Port users to be confident in the compliant delivery of towage services and in the sustained realisation of gains from the initial competitive tender process

We are not aware of the criteria that will be used to select the successful tender. However, if the PwC report is a guide to the exclusive licence assessment process, then it will have quasi-economic regulatory elements rather than the nature of a solely commercial contract. Indeed, it could be characterised as an “administered contract”.⁷⁵ The nature of this arrangement has implications for the efficacy of the proposed exclusive tender, an examination of which we now consider.

5.4 Detriments of proposed exclusive tender

There is a range of harms caused by exclusive licensing. These stem primarily from the foreclosing of the market to more than one supplier and as a result replacing the dynamism of the market with a contractual arrangement between GPC and the single towage operator that must anticipate market developments, including demand movements, and the evolving service needs of users, over an 8-year period.

5.4.1 Loss on ongoing competitive tension

The awarding of an exclusive licence for an extended period brings with it two major shortcomings in relation to the loss of contestability.

First, there is a loss of competitive threat after the tender process is completed and the period of exclusivity has commenced. In the Port of Gladstone, the threat of new entry to the towage services market is credible because:

- there is evidence of new entry at other Australian ports in recent years

⁷⁵ See Goldberg, V. 1976. “Regulation and Administered Contracts.” *Bell Journal of Economics* 7: 426–448 and Williamson, O. 1976. “Franchise Bidding for Natural Monopoly—In General and with Respect to CATV.” *Bell Journal of Economics* 7: 73–104.

- there are several Australian and international well-resourced towage operators currently providing towage services in Australian ports
- the market conditions in the Port of Gladstone are attractive, given the existing size of the market and expected future growth in demand.

PwC's report depicts poor outcomes for port users, if the port is open to competition, because of its limited presentation of how the harbour towage market in Gladstone will perform. However, towage service providers have entered and exited Australian ports without causing competition so ruinous that port customers have been unable to obtain harbour towage services. As noted earlier, the Port of Newcastle has seen firms enter and exit the market there for harbour towage services without materially disrupting the movement of shipping in and out of the port.

It also is important to keep in mind that the users of harbour towage services at the Port of Gladstone are well-resourced, sophisticated firms with national and international relationships with service providers and so have the ability to ensure that the services they require to operate, such as towage, are maintained.

In practice, the likely entry strategy for a new entrant will be that it wins a tender for sufficient volume to underpin entry – this reflects the history of entry at Port Hedland as well as entry into transport markets elsewhere in Australia – particularly rail haulage (see Attachment B). Once entry occurs, then towage operators compete opportunistically for volumes. Entry is likely to empower customers of the incumbent to seek discounts or to increase service quality in a useful way – that is the competitive process at work.

The key point is that even if competition results in the exit of an operator, it is clear that there are other players who, given a sufficient incentive, will enter the market – as has been seen in ports elsewhere in Australia. This is consistent with entry and exit costs being relatively modest for the provision of tug services.

The relatively low entry costs can be seen in the 'hit and run' competition that is synonymous with a contestable market. A good example is the entry that has occurred in the Port of Eden and the Port of Bundaberg.

If an incumbent is earning excessive profits, it is relatively easy for a new firm to enter the market. Moreover, the vast majority of towage customers are sufficiently sophisticated to take advantage of this opportunity.

Second, by removing the threat of new entry the exclusive licence has two effects:

- it removes a powerful incentive for an incumbent to perform efficiently with a view to minimising the likelihood of new entry

- it prevents other service providers offering contemporaneous competition for relatively short periods followed by exit, instances of which represent not market failure but rather the effectiveness of market processes for testing and resolving the issue of the most efficient structure of a market.

Further, for the term of an exclusive licence, the contracted service provider does not face the competition-driven incentives to innovate and invest which are inherent in open markets. For example, exclusivity means there is no incentive to up-grade service capabilities to the benefit of customers as new technology becomes available, or to adjust operating arrangements, including crewing, as new systems emerge. Further, new entrants to a market might be able to negotiate better Enterprise Bargaining Agreements, which is a dimension of competition that can provide significant benefits to customers because crewing represents the most significant cost in towage services provision.

5.4.2 Demand uncertainty

The claim that an exclusive licence will result in more efficient service provision than a non-exclusive licence or open market environment relies considerably on the assumption that the size and nature of demand for towage services is predictable over an extended period. However, no reason has been advanced why this would be the case.

In 2016/17, there were 8,670 tugboat jobs in the Port of Gladstone.⁷⁶ The PwC report cites a forecast of demand over the eight-year period from 2017/18 to 2026/27 which increases to a maximum of 9,560 tugboat jobs.⁷⁷

The PwC report itself notes that although demand grew during the current licence period:⁷⁸

... it did not match the increase expected at the time the last towage tender occurred.

...

In fact, demand for towage services in FY2027 is now expected to be less than the level of demand originally forecast for FY2018

⁷⁶ PwC (2018), p.6.

⁷⁷ PwC (2018), p.21.

⁷⁸ PwC (2018), p.21.

The PwC report acknowledges that earlier forecasts were highly inaccurate. This raises a question as to whether such a long-term demand forecast is a prudent foundation on which to build even part of a case for regulatory intervention through an exclusive licence. Although the forecast for 2017/18-2026/27 is for “growth in vessel calls (and by implication, demand for towage services) ... to stabilise” there is no evident reason to rely more on this forecast than on that which covered the period of the current licence.

In this regard it is important to note that:⁷⁹

The demand for harbour towage services is derived from the number of ship visits, the size of ships, the composition of cargo, and the general state of the economy.

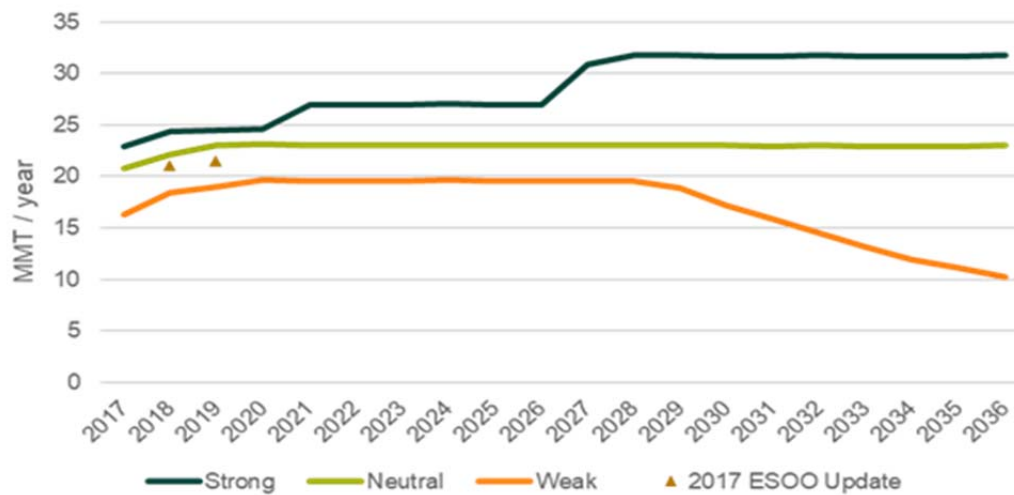
Demand for the services of the Port of Gladstone is influenced by the general state of the demand for coal and liquefied natural gas (LNG) in economies of Australia’s customers, our relative international competitiveness in these commodities as well as domestic circumstances.

China, South Korea, and Japan are the major LNG customers, but LNG also is exported to India, Singapore, Thailand, the Philippines, Malaysia and Hong Kong. Currently, LNG exports are constrained by gas availability. Growth in LNG exports is likely if gas supply constraints are relieved by increases in domestic gas production. For example, under credible scenarios, LNG production may well increase significantly on Curtis Is (see Figure 12).⁸⁰

⁷⁹ ACCC (1996), *Inquiry into the Harbour Towage Declaration*, Report, p.32.

⁸⁰ The recent liberalisation of fracking in NT together with the completion of the Northern Gas Pipeline will assist with alleviating gas supply constraints.

Figure 12 AEMO Scenarios for LNG exports from Gladstone LNG producers (GSOO 2017)



Data source: AEMO, 2017, Gas Statement of Opportunities 2017 and AEMO, September 2017, Update to Gas Statement of Opportunities

Coal is exported to China, Japan, South Korea, Brazil, Mexico, Taiwan and to countries in the Middle East and Europe.⁸¹⁸² Although China, Japan, South Korea, India and Japan are the major markets, it is clear that total demand for towage services in Gladstone is derived from demand in a wide-range of international markets.

From a domestic perspective, demand for towage services relating to coal has been constrained by the debt and charging arrangements at WICET (which it appears GPC considers will be substantially resolved during the course of the proposed exclusive licensing period).

These factors make forecasting vessel calls and tug jobs at the port inherently uncertain and unsatisfactory as a basis for regulatory decision-making.

The PwC report states:⁸³

In reality, defining a clear point at which it is most efficient to bring on a new tug is a complex matter; complicated further by the inherent uncertainty in future vessel movements and towage requirements.

⁸¹ Queensland Resources Council <https://www.qrc.org.au/media-releases/lng-exports-break-new-records-coal-delivered-world/>

⁸² Gladstone Ports Corporation http://gpcl.com.au/SiteAssets/Publications/GPC_BROCHURE_GPC_Coal_Port_2015.pdf

⁸³ PwC (2018), p.20.

Under the current exclusive licensing arrangement, GPC's demand forecasts provided the basis for the incumbent towage operator, Smit, to be required to purchase three new tugs for LNG traffic. We understand the costs of these new tugs are currently being recovered from LNG users under an accelerated capital recovery time line. This has meant that under the exclusive licensing arrangement demand forecasting risk and its associated cost implications, are borne fully by towage users not towage operators, or GPC. It has meant that LNG customers may have been paying higher charges than otherwise may be the case if the exclusive licence had not been in effect.

This more heavily depreciated asset base will become irrelevant to price setting following the end of the current licence period – except that Smit may well have banked a benefit in recovering more than they might normally have expected from users in charges.

Cost pass-through arrangements of this nature are a second-best alternative to open market entry, where towage operators and their customers would negotiate regarding service levels, prices and non-prices terms and conditions, including risk sharing arrangements. The arrangements highlight the principal agent problem in exclusive licensing.

5.4.3 Principal agent problem

The GPC's exclusive licence for towage services in the Port of Gladstone gives rise to a form of the principal-agent problem in which the Port's customer-base is the principal and GPC is the agent.

The principal-agent problem is likely to outcomes that are less than optimal for the principal for two main reasons:

- imperfect information
- differing priorities

GPC is acting in a way that is not in the best interests of its end customers because the exclusive licensing arrangement is likely to result in towage charges that exceed the prices which would emerge if the port users were able to procure towage services in an open market for at least some of the services being provided. Once an operator has gained an exclusive licence for an extended period, it has a reduced incentive to fine tune its service offering to meet the needs of each individual customer. It faces no risk that the customer, or a group of disaffected customers, will defect during the licence period.

These difficulties arise in the context of information asymmetry, different priorities and demand risk.

Imperfect information

This aspect of the problem turns on the information held by the principal and by the agent: who holds the information and how, or whether, the information is used to make decisions that lead to outcomes in the interests of the principal.

Most discussion of the principal-agent problem has dealt with circumstances in which an agent holds information that the principal does not possess and manages that information in ways which promote its own interests rather than those of the principal. Simple examples include a senior public servant withholding information from a government minister with the objective of preventing the minister making a decision that increases an agency's workload or reduces its expenditure, or a firm's executives withholding information from the firm's board of directors with a view to their own benefits rather than those of shareholders.

The present case is different. In this case, the problem is whether the principal holds information of which the agent is unaware and therefore cannot apply in making a decision that should be in the interests of the principal. The GPC will have imperfect knowledge of current priorities and requirements of the port's towage service users and will have even more imperfect knowledge of how those priorities and requirements will evolve. Notwithstanding proposals for customer consultation through the process of considering an exclusive licence, the operation of an agent between potential towage service providers and the towage service users is likely to impede the exchange and use of information pertinent to the formation of a contract.

Moreover, the terms of the licence will be framed in 2018, but will apply through to 2027. The needs and priorities of customers will inevitably evolve over time, and there is no way of reliably anticipating the likely shape of this evolution. These terms will entrench any errors that the port authority may make in anticipating these needs because the towage operator will construct its bid within the framework of the licence terms, and is likely to be resistant to modifications of them or address them with a risk premium that would not likely arise in a non-exclusive competitive arrangement.

Furthermore, if conditions change in a way not anticipated in the contract the towage operator is likely to be in a strong (non-competitive) negotiating position to achieve contact adjustments that do not reflect what would emerge in a competitive market (see also section 5.4.4).

The customer base must use the towage services provided by the licensee for the duration of the term of the licence (unless the ACCC takes steps to remove the legal

protection of the Notification). There is no scope for customers to take advantage of technology developments (such as utilising vessels with greater manoeuvring capability which would reduce the need for multiple tugs) or improvements in tug technology; or simply to use the services of an operator (other than the licence holder) with whom they have developed an effective working relationship.

Inevitably then, this judgement is made by an entity with imperfect information about consumer preferences, supplier costs and the structure of future demand and with different priorities to its customers who ultimately pay for the towage service.

Differing priorities

The objectives of GPC and port users are not perfectly aligned.

This is not to say that the interests and objectives of GPC are opposed to those of its users. We do not see the issue to be whether the GPC as agent is seeking an arrangement to suit its (or its shareholders') interests rather than those of the principal, its customers. There is, in any case, considerable commonality in these interests.

But the alignment between them is oblique and incomplete. While the priorities and interests of GPC and the shipping line customers of towage service providers are overlapping, they are not identical. Indeed, it is hard to imagine how this could not be the case, as port users are not homogenous: different port users are themselves likely to have differing interests, objectives and priorities.

Additionally, the GPC may have its own objectives that stand apart from those of its users. It therefore, for example, may give priority to providing the capacity for future trade opportunities that are irrelevant to the current user base, and which may or may not be realised.

This imperfect alignment may lead to features of the licensing arrangements that will impose additional costs that must be borne by shipping lines, and/or service characteristics that impose indirect costs on them.

In 2009, Svitzer's Port of Gladstone operation consisted of two 46T tugs and three 62T tugs. We understand that when setting its requirements for the 2009-18 exclusive licence period GPC adopted a risk averse approach, which led it to decide that the successful tenderer must have at least five 70T tugs available in the Port to meet the demand it had forecast. Although GPC would have been concerned to avoid throughput being limited by tug capacity, it also did not necessarily have the same regard to the cost increase arising from that increase in tug capacity leading to a material price increase as its customers – in essence, an upgrade was forced upon customers through the exclusive tendering process.

Consequently, port-users have borne the cost of investment to meet GPC's interests and of the demand risk for towage services which ought to rest with towage service providers. This in turn manifests in the assignment of demand risk for port users that arises from the whole of port tendering process.

Summary of principal-agent issues

Inevitably, under exclusive licensing, important judgements on terms and conditions of towage service delivery will be made by an entity with imperfect information about consumer preferences, supplier costs and the structure of future demand and with different priorities to its customers who ultimately pay for the towage service.

In essence, an exclusive licence rigidifies some of the terms of service provision in a form that is judged to be appropriate by the controlling or regulatory body, in this case GPC, at a point in time, to be in the interests of customers. On the other hand, an open market allows the customers of the service, in this case parties shipping bulk commodities, to directly negotiate those terms, and to vary them over time as their needs vary.

5.4.4 Contract incompleteness and the port as a quasi-regulator

In section 5.3 we outlined what has been disclosed about the proposed exclusive licence tender. However, it is clear, in a Demsetz auction sense, that the contract that emerges will be "incomplete".

This incompleteness means that the exclusive licensing arrangement will result in GPC performing the role of a quasi-regulator determining towage charges. Williamson has commented on the problems of incompleteness in such a contract:⁸⁴

- (1) the initial award criterion is apt to be artificial or obscure; (2) execution problems in price-cost, in other performance, and in political respects are apt to develop; and
- (3) bidding parity between the incumbent and prospective rivals at the contract renewal interval is unlikely to be realized.

Taking these 3 concerns in turn, each is relevant to the proposed exclusive licensing arrangement.

While we cannot comment specifically on the initial award criteria that will be applied by GPC, the following concern expressed by Williamson is relevant:⁸⁵

⁸⁴ Williamson, O. 1976. "Franchise Bidding for Natural Monopoly—In General and with Respect to CATV." *Bell Journal of Economics* 7: 73–104, p 80.

although franchise awards can be reduced to a lowest bid price criterion, this is apt to be artificial if the future is uncertain and the service in question is at all complex. Such awards are apt to be arbitrary and/or pose the hazard that "adventurous" bids will be tendered by those who are best suited or most inclined to assume political risk.

In relation to execution problems, it is clear that "under conditions of uncertainty, fixed price bids are apt to be rather unsatisfactory". PwC's submission comments in detail on the regulator-like role GPC will play administering the exclusive licence. This includes:

- determining the level of towage capacity
- assessment of the costs claimed to be incurred by the towage provider and whether or not they should be recovered from users
- the rate of allowed depreciation of vessels (noting that the port has allowed accelerated depreciation of some tug boats)
- the rate of return to be earned
- the allocation of cost between harbour towage and LNG users.

The last point is particularly important. It is clear in the PwC submission that GPC is responsible for pricing the towage services across the harbour towage and LNG services with efficient cost assessment and cost allocation processes being undertaken by it. These cost allocation processes are significant – particularly with the same tugs servicing harbour towage as well as LNG vessels – essentially GPC is empowered to control the pricing of towage services – potentially creating cross-subsidies between harbour towage as well as LNG under the exclusive licensing arrangements.

KWM's supplementary submission asserts that there is no cross-subsidisation by LNG⁸⁶ yet acknowledges that:⁸⁷

Although LNG vessels are expected to continue to require a higher standard of towage service (including potentially higher powered tugs), GPC intends to seek as part of the new Licence a more integrated pricing framework for LNG services in

⁸⁵ Williamson, O. 1976. "Franchise Bidding for Natural Monopoly—In General and with Respect to CATV." *Bell Journal of Economics* 7: 73–104, p 81.

⁸⁶ p 13

⁸⁷ p 11

the expectation that this will allow for an efficient configuration and utilisation of the new Licensee's fleet of tugs.

The latter reference could be inconsistent with the assertion that there is no cross subsidy. However, it highlights the superiority of market based determination of rates.

Moreover, the issue of rate determination highlights that the successful tenderer's focus will naturally turn on managing its relationship with the GPC as the principal determiner of profitability, rather than the relationships with its customers.⁸⁸

Moreover, over time, it will be far more difficult to displace a non-performing towage provider than in a conventional contracted environment:⁸⁹

The prospect of litigation delays and expenses also discourages an effort to displace a franchisee. Moreover, even if such an effort were successful, nontrivial transition costs would be incurred.... Finally, franchise award agencies, like other bureaucracies, are loath to concede or be accused of error.

There is no suggestion that GPC will have a financial interest in the outcomes of its processes. Nevertheless, the functions are performed without any of the protections that normally arise in regulatory processes. For example, it is under no obligation to consider the best interests of port users, or classes of port users, no rights to information or review and so on.

Moreover, if conditions change in a way not anticipated in the contract the towage operator is likely to be in a strong (non-competitive) negotiating position to achieve contact adjustments that do not reflect what would emerge in a competitive market

Nevertheless, one reason that could be advanced to justify a Demsetz auction could be that conventional towage customers are poorly placed to protect themselves in the market. For example, where services are provided to a very large number of customers who have limited capacities to negotiate on the own behalf, intervention by a regulator (or in this case, a port as a quasi-regulator) to, in effect, negotiate for those customers can be an efficient way of reducing the administrative burden. This has, for example, customarily been an assumption of the case for economic regulation of electricity distribution networks.

⁸⁸ Williamson observes (a p83) "In circumstances in which renegotiation is common and perhaps vital to the profitable operation of a franchise, political skills assume special importance".

⁸⁹ Williamson, O. 1976. "Franchise Bidding for Natural Monopoly—In General and with Respect to CATV." *Bell Journal of Economics* 7: 73–104, p 81.

The customers of the Port of Gladstone are very different to the great majority of the customers of an electricity distribution network. The Port's customers are large sophisticated businesses – whether mining, LNG, resource processing or shipping firms – with the capacity to understand their needs in depth and to negotiate arrangements for servicing those needs.

This is evident from the demand forecast data that coal and LNG are by far the largest user groups at the port, which indicates that these users are likely to be able to exert countervailing power in purchasing towage services, particularly in the context of an open market being established for them. In 2018/19, coal demand accounts for around 42% of total demand and LNG accounts for around 30% of total demand. These proportions remain stable over the forecast period to 2026/27. This concentration of users is relevant because elsewhere we have seen joint procurement arrangements being established between major companies to facilitate entry into markets (such as rail haulage in both the Hunter Valley and Central Queensland coal networks).⁹⁰

The Productivity Commission found that:⁹¹

Countervailing power of towage users has the potential to limit or even eliminate the market power of individual towage providers. At ports with a small number of users, their negotiating power should be sufficient to temper significantly the market power of towage providers.

In Attachment B of our report, as part of our discussion of microeconomic reform of the Australian transport sector, we discuss that the provision of above rail services in Queensland and NSW occurs through a competitive market in which the customers drive the procurement of the services they need.

In all cases, firms shipping coal by rail to the Port of Gladstone have procured their above rail services by entering contracts of durations sufficient to support the investment competitors must make to enter the market. There is no reason to consider that they, or their customers shipping the product overseas, would not be equally capable of negotiating for the provision of towage services. By doing so, the information asymmetry and other principal agents problems discussed above would be avoided.

⁹⁰ Refer Attachment B

⁹¹ Productivity Commission (2002), Finding 6.4, p.XLIII.

5.4.5 The competition paradox

There is something profoundly counter-intuitive in the idea that we must create a monopoly in order to increase competition – in other words, that we have to destroy or restrict competition in order to save it. Of course, there is a rationale for such an approach where customers are not well placed to protect their interests.

The fact that a call for tenders for exclusive licences attracts potential new entrants – and that, in the case of the Port of Fremantle, there was much more interest in bidding for an exclusive licence than for a non-exclusive one – is often advanced as evidence of the pro-competitive impact of exclusive licensing. The PwC report claims that:⁹²

The competitive tender process will provide strong incentives for prospective towage providers to compete *for* an exclusive licence where they may not otherwise be prepared to compete *in* the market ...

In a move very unusual in Australia, Fremantle Ports called in 2014 for expressions of interest in the operation of each of its two existing container terminals. It is understood that Fremantle Ports discontinued the process and ultimately decided to roll over the existing leases.⁹³

Total container throughput at the Port of Fremantle in 2014 was about 750,000 TEU.⁹⁴ Arguably, this is not enough to support two modern terminals operating at an efficient scale (it is less than the throughput of the DPW and Patrick terminals in Melbourne and Sydney). In Fremantle, the two terminals lie adjacent to each other on a single length of quay. It would be a realistic option, and would arguably be more technically efficient, to combine the existing two terminals into a single large terminal.

If Fremantle Ports had done this, and called for expressions of interest in a single monopoly terminal that handled all the port's trade, it would almost certainly have attracted substantially more expressions of interest. However, precluding actual competition emerging "in the market" through the granting of an exclusive licence to attract more vigorous competition "for the market", cannot necessarily be considered a pro-competitive move, especially in the absence of a failure of competition in the market to produce efficacious results.

⁹² PwC (2018), p.50.

⁹³ <http://www.thedcn.com.au/advert/expressions-of-interest-lease-of-container-terminals-fremantle-ports/>

⁹⁴ It is acknowledged that the Port of Fremantle are beginning a fresh process.

More generally, it is difficult to envisage any industry in which the opportunity to acquire a regulated monopoly would not be more attractive to an aspiring service provider than the prospect of having to enter the market in competition with an established provider or providers. If such an opportunity were offered in any market with a limited number of competitors⁹⁵, one would always expect the number of bids to exceed by some margin the number of existing participants. One would expect bids from all existing participants, plus several others, attracted by the reduced risk that possession of a monopoly would bring.

Hence, it is inappropriate to read this as an increase in competition with more efficient pricing of services, rather than as the purchase of a guaranteed outcome with prices reflective of that benefit. Furthermore, although there may be many bidders this does not ensure that the bidding outcome is necessarily more competitive than would arise if entry was not prohibited and there was 'competition in a market' rather than 'competition for the market'.

Further to our discussion about the apparent paradox of destroying competition to save it, the view expressed in the PwC report that to "have multiple towage providers" is to⁹⁶:

... impose a market structure of multiple towage providers in an environment where significant economies of scale have not fully been exhausted will cause towage costs, and prices, to be higher than otherwise ...

is fundamentally misleading. Exclusive licensing of service provision is an imposition of a market structure by the port authority acting as a quasi-regulator. The suggestion that the exclusive licence will confer a benefit arising from increased competitive pressure is illusory – ironically, as we show in section 5.4.5 the attraction of the process to bidders will be the benefit of avoiding that very competitive pressure for the duration of the exclusive licence.

In contrast, removal of the binding entry restriction inherent to exclusive licensing would enable the towage services market to evolve to its most efficient structure, whether that be one or more than one towage operator.

As shown in section 4.3 there is a range of entry scenarios in which entrant towage providers could enter the market with anywhere [REDACTED]

⁹⁵ The proviso of a limited number of competitors is made because, in a fragmented market, it is much more likely that many participants would not have the capacity, and would have no means of acquiring the capacity, to serve the whole market.

⁹⁶ PwC (2018), p.21.

█. It is the threat of entry that should drive pricing within the port rather than a quasi-regulatory process such as the one GPC establishes itself to perform.

5.5 Other issues

5.5.1 Safety

Safety issues are primarily the responsibility of GPC and are managed through the towage licensing arrangements.

We are not aware of any safety issues emerging in Australian ports subject to entry and exit in recent years and consider that the safety issue should not prevent an open licencing arrangement apply at the port. GPC could establish an open (contestable) towage market arrangement with the necessary service and safety standards that any towage operator in the market would be obliged to meet.

5.5.2 Impact on competition in other ports

Towage capacity is capital and skill intensive but very mobile. If a towage provider commits capacity to a port user or a group of port users, but is forced to exit after being undercut by a competitor, its attention will turn to the best alternative use of its capacity.

In this situation, the alternative use of towage capacity becomes an important consideration to minimising the costs of exit – all else being the same, the cost of exit will be lower if the towage provider has more options to deploy its capacity elsewhere. Moreover, the unpredictability with which tug capacity may become available provides an important incentive for incumbents to price with regard to the ever-present threat of entry.

Keeping open opportunities for redeployment of displaced tugs is therefore important to the dynamic efficiency of the Australian towage industry as a whole. It increases the credibility of ‘hit and run’ entry, and so intensify contestability; and it facilitates the removal of temporary excess capacity that often results from competitive entry.

A very large port such as Gladstone, which has a sufficient demand for towage services, is likely to attract an entrant with spare capacity. It would be particularly significant if one of the most commercially attractive options for surplus towage capacity to be deployed is closed.

Clearly, one option will be for the former incumbent to sell, bareboat lease or lease on a lease and buy back basis its towage capacity and abandon the business. However, all

else being the same, the value of a tugboat that is superfluous in its current location will be greater if there are more places available for it to be deployed. Accordingly, the adverse impacts of exclusive dealing on port users actually extends beyond the users of the affected port to other ports.

Given that the Port of Gladstone is as Australia's 3rd largest port by tug job, it would be particularly significant if one of the most commercially attractive options for surplus towage capacity to be deployed is closed.

6 Conclusion – costs and benefits of exclusive licensing

To assess the costs and benefits of restricting competition, we begin with identification of a counterfactual and assess costs and benefits of exclusive licensing relative to it.

6.1 Counterfactual

In the absence of exclusive licensing, the Port would most likely have a non-exclusive licensing regime in place⁹⁷ (noting that some ports impose no licensing requirements).

This would mean that there is no reason that the current incumbent would not continue to provide the harbour towage services it currently provides (if these services are competitive in cost and quality with those offered by other potential providers), noting it would be subject to ongoing competitive pressure that would not be a feature of an exclusive licence. Instead of the current towage rates being constrained by the exclusive licensing process they would be constrained from the threat of entry, so long as GPC did not act to inhibit entry.

If the current towage rates are set efficiently, as is asserted by PwC, there would be no reason for those rates to change if exclusivity is no longer in place because there would be no reason for the incumbent's costs to change as a consequence of the removal of exclusivity.

However, the constraint to the incumbent's future pricing arrangements will come less from the port and more from other towage providers and the threat of entry into the market.

As such, it is difficult to see material downside for any party emerging from the removal of exclusivity.

6.2 Assessment of asserted benefits from the exclusive licence

In essence, GPC asserts that the principal benefit of the exclusivity is lower towage charges at the port.

⁹⁷ For example, GPC could establish minimum requirements for towage providers to meet (i.e. both incumbents and entrants) before they operate at the port, with such requirements being calibrated so that towage providers can satisfactorily meet the demands of a group of users on a stand-alone basis.

6.2.1 Claimed efficiency saving

The claimed efficiency savings of the exclusive licence are based on claimed economies of scale associated with a single provider at the port. However, the claimed benefits rely on assumptions which do not reflect the reality of service provision because the assessment:

- ignores the possible strategies of entrants which will not necessarily increase the total cost of service provision – whether due to tug configuration or lower cost of service provision (utilisation of second hand tugs)
- ignores the scope for the cross-hiring of tugs between providers to manage overflow conditions ⁹⁸
- overstates the costs of competitive provision of towage services at the port
- ignores the reality that forecasts by the GPC are likely to be inaccurate and better matching of towage capacity and demand is possible in a decentralised environment
- overstates the complexities associated with managing more than one towage provider – we are not aware of issues created by more than one towage provider in any port in Australia
- does not recognise that sunk costs are not material and that, even if it is the case that at a point in time single cost supply is the lowest cost option, allowing entry over a period of several years introduces real competitive pressure because the market would continue to be contestable.
- there is no evidence to support the contention that relying on the market will increase GPC's costs, other than the possibility of an additional berths or berths being constructed. At very worst, this risk could be addressed by requiring the entrant to develop such berths, although doing so may very well not be in the GPC's customers best interests as the benefits of competition will be maximised where a competitively neutral environment is created for towage operators.

If the claimed efficiency savings are real, then in the absence of exclusivity, it will be the threat of entry that will constrain the incumbent's pricing. We turn now to a

⁹⁸ KWM (2018), Supplementary Submission, Attachment B p.6 argues that such arrangements are “fundamentally inconsistent with the expectation that the two providers would also vigorously compete with each other”. See section 6.2.3 for counter-argument to that assertion, demonstrated by experience of customers of the Port of Newcastle.

comparison of pricing outcomes between open and closed ports to assess these outcomes.

6.2.2 Pricing consequences of exclusive licencing

The PwC report presented a comparative analysis of the cost of towage on a per ship call basis for the Port of Gladstone.⁹⁹ Whilst the comparative ports are not named, the data presented reflects a 61% cost differential between Gladstone and the most expensive port for towage services. There are 2 concerns with this data however:

- It does not take account of discounting
- It does not take account of volume.

Discounting

We are not critical of price benchmarking based on publicly available information – often there is no better information available. However, Svitzer has advised that price discounting is extensive in the industry.

The impact of competition in the market can be seen in

[REDACTED]

[REDACTED]

[REDACTED]

⁹⁹ Page 18

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Volume adjustments

Clearly, the very essence of GPC's justification for exclusive licensing is the importance of volume for the efficiency in the provision of towage services. However, PwC's comparison did not make adjustments for volume. A more informative comparison would assess the cost of towage at Gladstone against other ports, showing volumes as well as prices.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

It is acknowledged that the comparison of towage costs across ports is complex because of the idiosyncrasies of each port. However, that is not the key point here. What matters is that there is no clear advantage to exclusive licensing as a means of organising the provision of towage services relative to the cost at broadly comparable ports that are non-exclusive – exclusive licensing delivers no discernible pricing benefit. [REDACTED]

[REDACTED]

[REDACTED]

This implies very strongly that customers would not, at the very least, lose were a new entrant to enter then exit the Gladstone market and that, indeed, some of the larger customers may benefit.

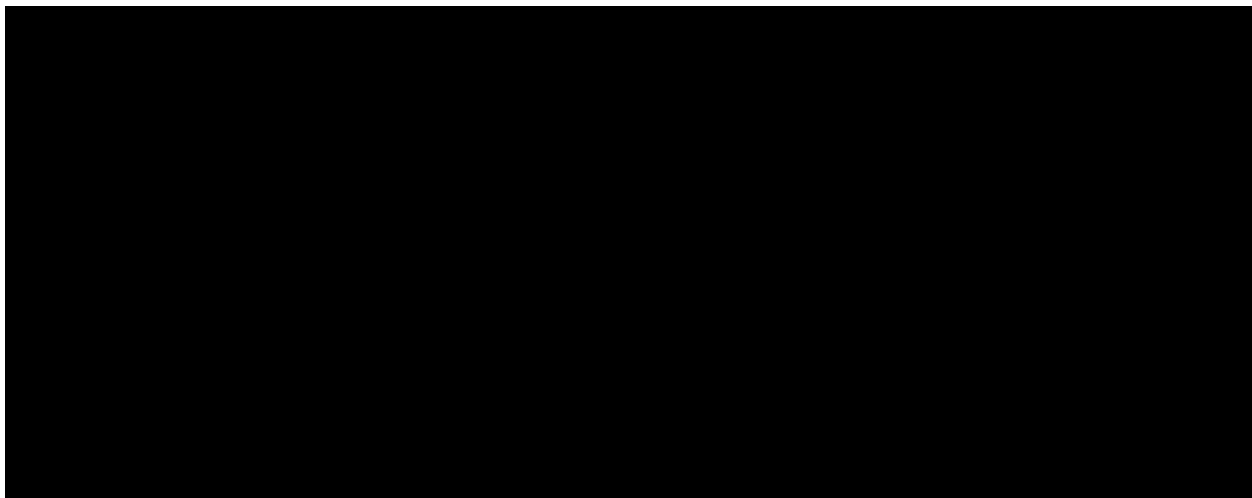
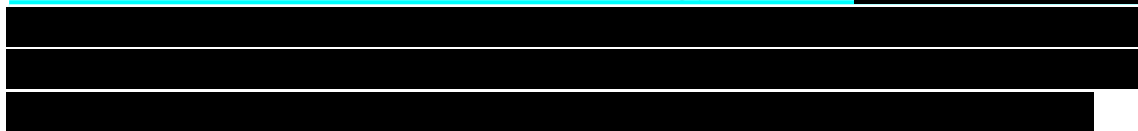
6.2.3 Competitiveness of subcontracting model

KWM's supplementary submission quotes Smit:¹⁰⁰

... in September 2015, Smit Lamnalco ceased operating tugs in its own right in the ports of Newcastle, Melbourne and Sydney and in February 2018, Brisbane... the absence of an exclusive licence has also meant that there has been limited competitive tension to constrain the incumbent.

However, a more detailed examination of the outcomes of the subcontracting process indicates that this contention is inaccurate, at least for the Port of Newcastle, which, of the ports that have been subject to the subcontracting arrangement, is the port that is most similar to the Port of Gladstone.

Figure 16 shows that from 2012 to 2017 the total number of tug jobs performed by Svitzer in Newcastle, and Svitzer's share of that tug job market, [REDACTED]



¹⁰⁰ KWM (2018) Supplementary Submission, Attachment B, p.6

[REDACTED]

[REDACTED]

[REDACTED]

These findings must weigh heavily in consideration of whether the exclusive licence will deliver benefits likely to outweigh its likely detriment to the public.¹⁰¹

¹⁰¹ KWM (2018) Supplementary Submission, Attachment B, p.5, cites the support of the Essential Services Commission of South Australia for using published rates in benchmarking port costs on the ground that private negotiated discounts tend to be commercially confidential. However, where such economically important information is available it should be used. Also, this information stands in contrast to KWM's assertion that "Svitzer has provided no evidence of vigorous price or non-price contestability" p.7.

6.2.4 Other asserted benefits

The significant history of competitive towage provision in ports in Australia and elsewhere demonstrate that the exclusive licensing does not deliver any real benefit in terms of towage management or safety.

6.3 Assessment of detriments

6.3.1 Inefficient pricing

It is clear that the pricing arrangements under exclusive licensing will be a quasi-regulatory process controlled by GPC. The prices will not necessarily reflect competitive market outcomes. This is because prices will be determined by GPC through its assessment of allowable cost recovery and cost allocation, and GPC will not have the same incentive or ability to reduce costs and improve services as would towage service firms competing in the market or threatening to enter if competitive outcomes did not arise.

Efficient pricing of towage services should not exceed the stand alone cost of servicing a port user or any group of port users at a port (it being acknowledged that entry into the port should require a towage provider to meet a defined level of service, including commitment to sufficient capacity to operate in a manner that aligns with the shipping schedule for its towage customers).

However, pricing under an exclusive licence will be set by GPC without necessarily having regard to the underlying costs to any particular user or group of users or the pricing outcomes expected if a competitive market were allowed to operate. This in turn can mean that individual port users subsidise other port users in the provision of towage services.

6.3.2 Inefficiency in provision of towage capacity

There will be no scope for port users to optimise the provision of services for their needs. The exclusive licence removes the incentives competition provides for the efficient provision of services. The exclusive licence will also result in towage capacity being calibrated for a level of demand that has proven in the past to be highly uncertain. In the counterfactual, towage capacity can be provided in response to emerging requirements – there is no need in the counterfactual for GPC to forecast towage demand, as it will be customers directly influencing this process.

GPC and PwC imply that it would be the responsibility of the port authority to organise overflow work in the event that a contracted party is unable to perform a tug

job on account of its capacity being committed to another vessel. However, this represents a misunderstanding of the way in which towage contracts are managed in practice. Normal commercial practice is that a towage provider which is unable to handle a tug job would subcontract another provider with available capacity to perform the movement for it. The towage provider with the contract with the ships agent would retain the customer relationship – the physical provision of the service would be provided by the other towage operator.

6.3.3 Loss of competitive tension

There is a loss of competitive tension in service provision once an exclusive licence has been granted. In the counterfactual, there is the ever-present threat of entry and should entry occur, there is the tension of ongoing contestability of services. The competitive tension drives the imperative for efficient service delivery.

Associated with the loss of competitive tension is the loss of the opportunity for customers to respond to the prices and the performance of the service provider, and the efficiency benefits driven by such responsiveness. Once an operator has gained an exclusive licence for an extended period, it has a reduced incentive to fine tune its service offering to meet the needs of each individual customer. It faces no risk that the customer, or a group of disaffected customers, will defect during the licence period.

6.3.4 Demand uncertainty

An exclusive licensing arrangement does not adapt as efficiently as a market environment to variability in demand. Accordingly, the benefits claimed by GPC assume that demand can be reliably predicted for the duration of the franchise period (in this case, up to eight years). However, experience over the period of the current licence clearly shows that it is extremely difficult to predict demand for towage services, especially in a port, such as Gladstone, that is heavily reliant on resource exports.

6.3.5 Inefficiencies caused by the principal agent problem

As discussed in section 5.4, it is acknowledged that GPC is not engaging in opportunistic behaviour in pursuing the exclusive licencing application. Rather, it is submitted that GPC is acting in a way that is not in the best interests of its end customers because it will result in GPC contracting on behalf of its customers, which in turn means the arrangement will suffer from principal agent problems from:

- imperfect information - GPC will have imperfect knowledge of current priorities and requirements of the port's towage service users and will have even more imperfect knowledge of how those priorities and requirements will evolve
- differing priorities - there will be an imperfect alignment of the objectives of GPC with those of Port users may lead to additional costs that must be borne by shipping lines, and/or service characteristics that impose indirect costs on them.

6.3.6 Contractual incompleteness

Whilst we have been informed of the general approach to be taken to exclusive license tendering, we are not aware of the specific arrangements that will apply.

However, it is clear, in a Demsetz auction sense, that the contract that emerges from the exclusive licensing process will be "incomplete". Williamson has commented on the problems of incompleteness in such a contract:¹⁰²

- (1) the initial award criterion is apt to be artificial or obscure; (2) execution problems in price-cost, in other performance, and in political respects are apt to develop; and
- (3) bidding parity between the incumbent and prospective rivals at the contract renewal interval is unlikely to be realized.

This incompleteness means that the exclusive licensing arrangement will result in GPC performing the role of a quasi-regulator determining towage charges. GPC will perform these functions without any of the protections that normally arise in regulatory processes. It is clear that the measures will mean that the exclusive licensing arrangement will depart materially from the type of arrangement that underpinned Demsetz's original franchising concept and, as a consequence, the benefits that GPC ascribes to this approach cannot be assumed to arise.

6.3.7 Impact on competition in other ports

The costs associated with a loss of competitive tension affect not only the users of the port where the tender is let – they also affect (albeit to a lesser extent) users of other ports because of the impact of competition restrictions on the exit costs for towage providers elsewhere.

¹⁰² Williamson, O. 1976. "Franchise Bidding for Natural Monopoly—In General and with Respect to CATV." *Bell Journal of Economics* 7: 73–104, p 80.

6.4 Concluding comment

Our analysis reveals the weaknesses in the GPC and PwC analysis which have the effect of indicating that Gladstone's towage services market can support only a single service provider.

It is possible a single operator is the most efficient tug resourcing option at a single point in time (i.e. around the time of the tender, depending on the basis for awarding the successful tender and the capacity requirements relative to market need).

However, PwC's conclusion would be reached in the many markets which involve reserve capacity in the delivery of a service (which is very common). This is because the only demand uncertainty faced by a single provider is the uncertainty of market demand, but with multiple service providers each faces uncertainty about market share as well as uncertainty about market demand; competition in the market often implies greater excess capacity than monopoly. This is not generally considered an adequate reason for favouring monopolies.

PwC's restrictive and unrealistic assumptions significantly magnify this effect in its modelling, including the adoption of a static cost comparative approach, failure to consider low cost entry strategies, dismissal of commercial arrangements between competing providers to manage overflow work and rigid market segmentation.

PwC's analysis has not demonstrated that the Port of Gladstone is materially different to other Australian ports which have competitive towage services markets such that it needs an exclusive licence to obtain a reliable service. Indeed, the only other Australian ports to use exclusive licencing are in Queensland and are controlled by Government Owned Corporations in North Queensland.

By contrast, our analysis shows that the costs of entry (and exit) are manageable and that plausible options for entry are available to capable towage service firms. The Australian towage market is characterised by several well-established Australian and international operators that could enter the market to provide greater choice to towage users as far as price service offerings are concerned. The existing towage users at the port are large sophisticated buyers who understand their service needs and are capable of robustly negotiating with towage operators in terms of satisfying those needs.

It is clear there are no barriers to entry which are material in the context of the capacity of Australia's towage service industry. For example, although fixed costs are not insubstantial sunk costs arising from entry are not material. The Port of Gladstone is Australia's 3rd largest port by tug job. It is as large or (much) larger than other ports in which competition is present. Importantly, even if it is the case that scale economies support a single firm, this is not a reason to allow an exclusive licence arrangement in a

situation where the sunk costs are not material. If entry and exit are freely permitted, the contestability of the market will resolve the issue of providers obtaining the minimum efficient scale necessary to sustainably enter the market or to support more than a single firm and who the provider or providers should be.

Furthermore, the capacity of Australia's towage service industry is likely to grow over the period covered by the Notification, further increasing the ability of firms to compete in more markets. As towage operators capable of supplying the Port of Gladstone towage services market also supply services in several Australian ports, they are able to spread overheads across a larger customer base and, through the possession of a larger fleet, deploy and redeploy boats more readily between ports.

Based on evidence, we also consider that towage customers at the Port of Gladstone would clearly be made no worse off by a contestable towage services market in terms of price and quality, and would not bear the costs of the administration and inefficiencies of the exclusive licence arrangement. This alone means that the detriment of the conduct is likely to outweigh its benefit. However, the flexibility driven by contestability's threat of new entry means that customers stand to obtain positive benefits such as lower prices (increased discounts) than would otherwise occur under an exclusive licence arrangement. This means that the benefit of the exclusive licence conduct is very unlikely to outweigh its detriment.

In conclusion, an exclusive licence arrangement would be an appropriate response should competition fail in an unregulated towage services market for the Port of Gladstone. However, no evidence is presented to indicate this would be the case in any port, let alone the 3rd largest towage services port in Australia.

A. Forms of licensing

The right for a towage provider to operate in a port may be restricted by the port authority itself. There are several possible market structures for the provision of towage services:

- Vertical integration
- Exclusive licences
- Non-exclusive licences
- No licence necessary.

Vertical integration

Vertical integration is an alternative form of exclusivity whereby the port authority itself provides towage services on an exclusive basis. TasPorts provides an example of a port authority vertically integrating in the provision of towage services. TasPorts operates numerous ports in Tasmania (Bell Bay, Burnie, Devonport and Hobart as well as several smaller ports). In theory, vertical integration does not of itself preclude entry by a competing towage provider. However, in practice, an aspiring entrant into such a port may well encounter significant resistance from the incumbent.

Exclusive licences

The current application by GPC is an example of an exclusive licensing arrangement through which the port authority appoints a sole operator to provide towage services in a port for a defined period (here up to 8 years (5 plus 3)).

There have been various rationales for exclusive licences – including the so called “competition for the market” concept which we examine in more detail in section 5. However, for smaller ports, with a limited number of tug jobs, the principal rationale for exclusive licences is that they are necessary to ensure that a towage provider will commit the necessary resources to the port. Ports such as Mourilyan or Lucinda may well fall into this category.¹⁰³ However, entry has occurred in open ports that have low volumes of tug jobs, such as the Port of Eden and the Port of Bundaberg, which is discussed in section 2. In contrast, the Port of Gladstone is Queensland’s largest diversified port and one of Australia’s largest ports.

¹⁰³ Other examples of ports with exclusive licensing arrangements in place include the Port of Cairns and the Port of Townsville.

Non-exclusive licence

A non-exclusive licence arrangement may involve one or more towage providers being licenced to provide towage services in a port by the relevant port authority. Non-exclusive towage licences are common in Australian ports (e.g. Port Kembla, Port of Darwin as well as ports in South and Western Australia).

Each licensee must comply with the terms of the licence, and, in turn, the port authority's requirements (e.g. in relation to the provision of tug capacity at the port - including the number of tugs, their capabilities, crewing requirements, availability on a 24-hour basis, safety systems and so on). This is common across exclusive and non-exclusive licensing arrangements.

Non-exclusive licensing arrangements place no restriction on the relevant port authority from conferring additional licences. This may occur, for example, where the port authority forms a view that doing so would be in the interests of the port and its users or at the request of users. For example, excessive pricing by a towage operator or poor service delivery could easily result in the port authority (or a port user) initiating the entry of another towage provider to a port.

In a port where there is more than one towage provider, an issue arises as to what arrangements occur in circumstances where a shipping line's contracted provider is temporarily unable to provide a service (generally due to other towage commitments and limited capacity arising from ship arrival congestion). In these circumstances, there are very strong incentives for a competing provider to meet the shipper's needs on a commercial basis, whether at the published rate or a discounted rate (noting that such a situation may arise for each of the towage providers from time to time).

No licensing requirement

There are numerous ports in Australia that have no licensing requirement - in these there are no restrictions on entry except that the port authority includes minimum standards for operation including through harbour master directions). Examples include ports at Brisbane, Melbourne, Westernport, Geelong, Newcastle, Botany, Jackson, Eden and Abbot Point.

B. Contestable markets in Australian transport sectors

It is notable that in Australia, it is only ports in Queensland which have imposed exclusive licensing arrangements in regard to towage services.

Further, competition in the above rail and, to a lesser extent (due to lower costs of switching capacity to other markets), aviation sectors is limited by the same factors that have been used to justify the use of exclusive licensing in the towage sector.

These three sectors also share two important and relevant features:

- There are substantial but not inexhaustible economies of scale (which indicates the potential for more than one operator to serve demand in market); and
- Although the capital requirements can be substantial, there is little in the way of sunk costs because assets can be redeployed if an operator finds its operations unprofitable.

The preferred approach in the above rail and aviation sectors has been to allow market forces to determine both the number of participants, and conditions under which they offer their services to potential customers. Both sectors are now subject to open competition, even though in practice the result is often that there is, at any time, only one active operator serving a particular route or sub-market.

Despite this, the relevant markets have proved to be workably competitive which illustrates the capacity of the market to develop an efficient solution, even when there are substantial economies of scale – provided there is a focus on facilitating entry. The Productivity Commission states:¹⁰⁴

The provision of harbour towage services at individual Australian ports exhibits natural monopoly characteristics. A single provider of towage services at each particular port is likely to be the most efficient industry structure. However, the threat of entry, or actual entry that generates competition 'within' the market, to the extent it may occur, will provide some discipline on the incumbent service provider.

The characteristics of the towage industry mean that it is possible for a new entrant to challenge an incumbent towage operator (especially in the larger ports where the volume of tug jobs is higher and economies of scale are closer to exhaustion), but for only one provider to survive in the long run (chapter 6). In effect, the period of

¹⁰⁴ Productivity Commission (2002), p.149, p.150, p.151.

competition between two operators is a mechanism for determining which one is more efficient and therefore will supply the market in the longer term.

New entry can generate strong competitive pressures, however, the 'war of attrition' process can result in significant uncertainty amongst industry participants. The length of time until one firm exits the industry is uncertain. Ship operators may be cautious about entering into a long-term contract with a particular towage provider if there is an expectation the operator may fail.

Pricing over time is also likely to range from a level which is probably loss making for the operators during the competitive period, to a price above average cost (reflecting the extent of barriers to entry) when only one operator survives. Inefficient pricing is therefore likely to exist before, during and after the 'war of attrition' (Tirole 1988, p. 312). The pricing dynamics add an additional layer of uncertainty for industry participants.

A.1 Above rail services

In a research paper prepared for the National Transport Commission, John Hearsch Consulting states bluntly that 'rail economics are driven largely by economies of scale' and that '[t]here are also high barriers to entry for new "above rail" players'¹⁰⁵.

In a more formal appraisal of cost structure of the rail freight industry, Pittman concludes that:¹⁰⁶

The best econometric work has consistently suggested that over a broad range of track network sizes, there are significant economies of density in the operation of freight trains – that is, the costs of a train operating enterprise on a given track network decline with ton-km of output.

There also appears considerable empirical support for the proposition that, at least in part because of the 'natural monopoly' characteristics of rail freight operations, actual competition within particular segments of the market is likely to be severely limited.

The European Union has had an active program for the deregulation of rail freight for over twenty-five years. In a recent summary of the nature and impact of competition in the sector, Crozet observed:¹⁰⁷

¹⁰⁵ John Hearsch Consulting (2008), *Rail Productivity Information Paper*, prepared for National Transport Commission, Melbourne, p.3 and p.8.

¹⁰⁶ Pittman, R., (2005), *Structural Separation to Create Competition? The Case of Freight Railways*, downloaded from the website of the Australian Competition and Consumer Commission, <https://www.accc.gov.au>

Competition in the rail freight transport sector is clearly a situation of imperfect competition. Entering the market has a cost for the new participants. If they do not succeed in obtaining a return on their investment, they have to restructure or leave the market after a few years of operation. As there are many sunk costs, it is not possible to practice the “hit and run entry” so dear to the theory of competitive markets (Baumol, Panzar & Willig, 1982). A clear indication of this is that, in addition to the low number of players, there is a high number of new participants leaving the market after failing to sustain their activity. Thus in Sweden, after liberalisation of the market in one of the pioneer countries in this approach, between 2000 and 2004, eight companies left the market, including Ikea Rail.

In Australia, a recent Ibisworld survey of the industry summarised its view of competition between rail operators in the following words:¹⁰⁸

Major players operate in markets and geographic locations that exhibit a degree of separation, which limits internal competition. Furthermore, rail capacity and access limits the degree of competition among operators as ongoing expansion of routes and services is not possible. Governments have acted to increase internal competition in the industry by separating management of rail-track infrastructure (below rail) and provision of rail services (above rail). This has helped reduce the industry’s barriers to entry, although they remain high.

It is clear from the above that the discussion above that competition in rail freight is limited by all the factors that have been used to justify the use of exclusive licensing for the towage sector.

Yet, throughout Australia and, to the best of our knowledge, all other jurisdictions in which serious attempts have been made to make the rail sector more competitive, the preferred approach has been to allow market forces to determine the both the number of participants, and conditions under which they offer their services to potential customers. Synergies’ research indicates that in the twenty-three years since deregulation of above rail services in 1995 there have been at least twenty instances of new entrants into above rail services markets.¹⁰⁹ Some of these new entrants have exited the market and some have remained active participants.

¹⁰⁷ Crozet, Y., (2016), *Introducing Competition in the Rail Freight Sector*, paper prepared for the ITF Round Table on assessing regulatory changes in the transport sector, downloaded from the website of ITF, <https://www.itf-oecd.org>, 23 July 2017.

¹⁰⁸ Ledovskikh, A., (2016), *Rail Freight Industry in Australia*, Industry Report I4710, IBISWorld, August.

¹⁰⁹ This figure excludes the winning of further tonnages once an operator has become established in a market – for example, PN’s successful entry into the Queensland coal market is counted as a single entry, notwithstanding it subsequently winning approximately one third of the market share available. Similarly, Aurizon has succeeded to a

A history of these entries is set out in the Table below.

Table B.1 Market entries by new operators, 1995 to 2017

Date	Entrant	Foundation Customer	Description	Category
July 1995	SCT Logistics		First private train service on national network, Melbourne–Perth	New operator entering market
June 1996	TNT (Toll) trains commenced		TNT (later Toll) began operating freight trains between Melbourne and Perth	New operator entering market
May 1997	Patrick Rail operations		Patrick Corporation commences land bridging container train service between Port Adelaide and the Port of Melbourne	New operator entering market
February 1999	FreightCorp wins tender for coal haulage	NRG Flinders	Coal haulage from Leigh Creek to Port Augusta (Northern Power Station)	New operator entering market
2002	Freight Australia	Three separate contracts in NSW: <ul style="list-style-type: none"> • Shell; • Nestle Purina and • Weston Milling. 	Freight Australia's first services in NSW.	New operator entering market.
May 2003	Freight Australia		Freight Australia commenced a daily freight service between Sydney and Melbourne.	New operator entering market
July 2003	PN commences intermodal services in Queensland	Toll	PN commences intermodal services in Queensland, transporting freight for JV owner, Toll	New operator entering market
April 2004	QR National		QR National commences intermodal freight service between Brisbane, Sydney and Melbourne increasing competition on that route	New operator entering market
July 2005	QR National	BHP Billiton	QR National commences operating in Hunter Valley (Mount Arthur–Port Waratah)	New operator entering market
November 2007	QR National commences Melbourne–Perth service		QRN commences new thrice-weekly Melbourne–Perth service, incorporating the weekday P&O Melbourne–Adelaide train	New operator entering market

similar extent in NSW by winning multiple tenders, although only the first is considered in this assessment as an entry into a new market.

Date	Entrant	Foundation Customer	Description	Category
2008	El Zorro	<ul style="list-style-type: none"> Westvic Container Handling AWB Iluka Resources 	<p>Enters Victoria's market hauling:</p> <ul style="list-style-type: none"> Container freight from Warrnambool to Melbourne; Grain from regional Victoria to Melbourne; Mineral sands from Portland to Melbourne 	New operator entering market
August 2008	Pacific National	Rio Tinto Xstrata	Pacific National owner Asciano announces it has signed 10-year contracts for coal haulage in Queensland from early 2010	New operator entering market
May 2009	PN coal contract in Queensland	Macarthur Coal	Asciano wins 9-year coal-haulage contract with Macarthur Coal (3.7 million tonnes pa)	Operator expanding in new market
June 2009	Freightliner Australia (subsidiary of a UK firm)	Namoi Cotton	Freightliner Australian starts long term rail contract to haul cotton to Port Botany	New operator entering market
September 2009	Freightliner	Xstrata	Freightliner won 10-year contract to haul coal from Hunter Valley to Port of Newcastle	New operator entering market
2010	Southern Short Haul Railroad (SSHR)	Eraring Power Station	<p>SSHR commences intermodal service from regional NSW to Port Botany</p> <p>SSHR commences coal haulage from Hunter Valley to four coal export terminals and hauls coal to Eraring Power Station</p>	New operator entering market
October 2010	SBR (a subsidiary of SCT Logistics)	IMX Resources	Commencement of Specialised Bulk Rail services between siding west of Cairn Hill and Outer Harbour (Adelaide)	New operator entering market
December 2010	Watco	CBH Group	Watco awarded long-term contract to haul grain in WA.	New operator entering market
April 2011	Pacific National	Xstrata	Pacific National won tender for 10-year contract for hauling copper from north west Queensland to Port of Townsville	New operator entering market
June 2012	Qube Logistics		Acquisition of Independent Transport Group (trading name of Macarthur Intermodal Shipping Terminal Pty Ltd and subsidiaries Independent Railways of Australia Pty Ltd and Independent Railroad of Australia Pty Ltd).	New operator entering market
2014	BMA Rail	BHP Mitsui Alliance	BMA Rail starts hauling coal for the Alliance, reducing Aurizon's volumes.	New operator entering market
August 2016	Aurizon shuttle trains		Aurizon commences freight shuttle trains between Port of Botany and Enfield Intermodal Terminal	New operator entering market
January 2017	SCT		SCT commences operation between Melbourne and Bromelton	New operator entering market

Source: Synergies research

The impact of this competition between service providers has been a:¹¹⁰

rapid evolution in the way that producers negotiate for rail haulage services, including their access requirements. In order to enhance their ability to take advantage of this vigorous above rail competition, producers are increasingly wishing to control their own capacity entitlements. This means they are more likely to be negotiating the terms and conditions for access, and there is a growing demand for alternate contracting frameworks in which the end user directly contracts for long term capacity entitlements with Aurizon Network, compared to the approach taken historically where below rail access was negotiated with the above rail provider.

A.2 Aviation

Economies of scale in the provision of aviation services are, as in towage services, substantial but not inexhaustible. There is little doubt that major trunk routes can sustain the simultaneous operation of several carriers, just as there is no argument that several tug operators can be viable in a port the size of Singapore.¹¹¹ However, this is not the case for regional airline services operating on “thinner” routes.

For many years, the restriction of competition on such routes was the global norm. The arguments for such regulatory intervention were not always made explicit, but generally combined a desire to ensure the stability of service provision (that is, to avoid “destructive competition”) with a desire to ensure that operators on monopoly routes did not exploit any market power that they may have.

The United States began deregulating regional air services in the 1980s. In 1993, the European Union effectively eliminated all controls on entry to intra-European routes by EU-domiciled carriers. The EU’s reform package included the:¹¹²

establishment of the basic principle of free access for EU air carriers to intra-EU air routes, according to which all EU air carriers are granted unconditional access to all

¹¹⁰ Aurizon (2013), *2013 Draft Access Undertaking Volume 2: The 2013 Undertaking Proposal*, p.34 <http://www.qca.org.au/getattachment/a02c8fcc-267b-4c2f-a969-5a15a4df9e46/Aurizon-Network-Explanatory-materials-The-2013-Und.aspx>

¹¹¹ Charles River Associates (2002), *International Survey of Harbour Towage Operations*, submission to the Productivity Commission Inquiry into the Economic Regulation of Harbour Towage and Related Services, p12.

¹¹² European Union, Air Transport, accessed on the website of Shearman and Sterling legal practitioners, <https://gettingthedealthrough.com>, 23 July 2017.

member states' territories (including freedom to provide cabotage (ie, domestic air services within a member state)).

A recent study of “thin” aviation routes in the US and Europe has examined the market structure that has emerged from the elimination of entry controls in these jurisdictions. It notes that “the presence of density economics characterizes the airline industry, which means that competition on thin routes is unlikely as cost minimization will typically result in just one airline offering a service”. The study examined all routes in the continental US where both the origin and destination airports were in Metropolitan Statistical Areas, and all European routes involving the ten largest national aviation markets in Europe.¹¹³ This database therefore included some of the most heavily trafficked aviation routes in the world as well as many thin regional routes. The study found that, of the routes examined, “about half of the routes are monopoly routes”.¹¹⁴

Australian domestic aviation also has been extensively deregulated. The outcomes of deregulation have been studied extensively, and the findings of the literature are complex and nuanced. But some key features of the Australian experience of the elimination of entry control were:

- Something akin to the process of ‘destructive competition’ does occur, at least in the immediate aftermath of deregulation.
- Across Australia in the years immediately following initial deregulation, the number of commuter airlines fell from fifty-five in 1980 to forty-one in 1991; only ten airlines were operational continuously for the full eleven years. In just one small intrastate submarket, South Australia, there was a rapid turnover of air service operators following the opening of the market to competitors. By 1991, seven of the ten operators were new entrants.¹¹⁵
- This did not have the feared social consequences, because failed incumbents were usually replaced (or displaced) by new entrants.

¹¹³ In the USA, urban centres are referred to, for statistical purposes, as Core Based Statistical Areas. Core Based Statistical Areas are classified as either Metropolitan Statistical Areas (population above 50,000) or Micropolitan Statistical Areas (population between 10,000 and 50,000). The study was confined to routes between Metropolitan in order to maintain compatibility between its US dataset and its European dataset. But the reasons for expecting single provision to be the norm in connections between two Metropolitan Statistical Areas apply *a fortiori* to connections involving Micropolitan Statistical Areas. The study is therefore likely to significantly understate the share of thin routes that are served by a single service provider.

¹¹⁴ Xavier, F. and Flores-Fillo, R. (2011), *Air Services on Thin routes: Regional versus Low-cost airlines*, Research Institute of Applied Economics, University of Barcelona, Working Paper 21.

¹¹⁵ Industry Commission (1992), *Report on Intrastate Aviation*, Canberra, Australian Government Publishing Service, p.59-62.

In the immediate aftermath of deregulation, failure of an incumbent operator was common, and this is likely to have led to some short-term disruption to customers.¹¹⁶ But interruptions to services were generally short-lived. The Industry Commission report on regional airlines described the process in the following words:

Entry will only occur if a competitor believes it can displace the incumbent. New competitors may enter, some succeeding, some failing, some bringing down the incumbent as well as themselves - but the underlying route characteristics will mean that there will always be scope for one operator to provide a viable service.¹¹⁷

In the South Australian regional airline market, from 1979 to 1992, thinner routes did not experience any appreciable disruption in service over time, despite the fact that changes in operator were common. Only one of the six routes surveyed experienced an extended period of non-service.¹¹⁸

In a very large number of cases, the stable market configuration in a deregulated environment with (relatively) free entry and exit is service by a single operator.

This appears, again, to be very similar to the outcomes expected in the towage industry. But, as with rail freight, the general response has been to allow market forces to determine both the structure of and behaviour in the relevant market.

A.2.1 Other transport sectors

Coastal shipping

Coastal shipping for bulk commodities – which is by far the largest part of the coastal shipping industry – is mainly carried out on a bespoke basis, with a shipping company contracted to provide the service for a single shipper. While it would be possible to draw some comparisons between this sector and private contractual arrangements between terminal owners and tug companies (as at Dalrymple Bay), the relationship between supplier and customer is very different from that in general harbour towage.

Scheduled general cargo operations, however, have many similarities with harbour towage. Similarly, they require significant capital investment which is largely

¹¹⁶ Industry Commission (1992) p 61.

¹¹⁷ Industry Commission (1992) p 203.

¹¹⁸ Hocking, A. J. (2009). *Thin intrastate air route regulation in WA: compellingly justified?* Aviation Law Association of Australia and New Zealand Briefs, 48(15).

recoverable on exit. They exhibit significant economies of scale, which, at least in many instances, means that a route will be served by only one operator. And many different customers will typically use a single service provider.

Nonetheless, exclusive licensing of routes has never been a feature in coastal general cargo operations. There have been some restrictions placed on the participation of overseas lines in the domestic trades, but clearly the objective of these restrictions has not been the promotion of competition¹¹⁹.

Pilotage

The means of providing pilotage services are diverse. In some ports pilotage is provided by the port authority (Flinders Ports), in other ports pilots are contractors to the port authority (Fremantle), and in other ports, again, pilotage services are provided by an independent company with no commercial relationship to the port authority (Melbourne).

For reasons that are somewhat different from those that often lead to single-provider service in towage, pilotage is provided in most ports by a single service provider. This applies irrespective of the structure within which pilotage services are delivered. Active competition between pilotage companies is rare internationally.

The assets required to deliver pilotage services can be expensive, but are mobile and readily redeployed.

In Melbourne, pilotage services have been provided for many years by Port Phillip Sea Pilots Pty Ltd. As required by the *Marine Safety Act 2010* (Victoria), this company is registered with Maritime Safety Victoria; but other providers may register¹²⁰, and Port Phillip Sea Pilots' access to the market is not exclusive. In fact, recent entry has occurred in this market in Victoria.¹²¹

In Brisbane, Maritime Safety Queensland is the pilotage authority, but has contracted the private company Brisbane Marine Pilots (BMP) to deliver pilotage services¹²². In a submission to the ACCC in the context of the 2012 Gladstone notification, Round and Agarwal drew attention to an authorisation application lodged by Brisbane Marine

¹¹⁹ Forsyth, P., (1992), *Transport Deregulation in Australia: an interpretation in terms of public interest and private interest theories*, paper presented to the Australian Transport Research Forum, Canberra.

¹²⁰ I am aware that a second pilot service operator (Australian Pilotage Group Pty Ltd) has been registered in Melbourne, but as far as I can ascertain this service is not yet operational.

¹²¹ Pilotage in Port Phillip Bay to go under the microscope, DCN Daily News, 20 April 2018.

¹²² Maritime Safety Queensland, *Pilotage*, viewed on the MSQ website, 23 July 2017.

Pilots with the ACCC. The authorisation would, if successful, have had the effect of converting the *de facto* monopoly the BMP into a monopoly protected by an exclusivity agreement.

Round and Agarwal note that:¹²³

The ACCC accepted that the exclusivity agreement would create competition for the market, but it argued that the exclusive agreement would foreclose potential competition in the market by removing the incentives for other providers to offer their services for the duration of the exclusivity agreement, and it denied the authorisation.

Container stevedoring

The provision of container stevedoring services differs from the provision of towage services in two important ways that are relevant to the current discussion:

- Container stevedoring services involve major capital investment that is not recoverable on exit;
- There are multiple providers of container stevedoring services at the major Australian container ports.

Because of these structural difference, one would not expect there to be consistency in regulatory practice between the towage and container stevedoring sectors.

¹²³ Round and Agarwal 2012, *Competition in the Provision of Towage Services in Australian Ports: Is Exclusive Licensing Necessary?*, October 27, p23.