AUSTRALIAN COMPETITION & CONSUMER COMMISSION

Container stevedoring monitoring report

2018–19

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Glossary and abbreviations

ABS	Australian Bureau of Statistics
ACCC	Australian Competition and Consumer Commission
Berth	A ship's allotted space in a stevedore's container terminal.
BITRE	Bureau of Infrastructure, Transport and Regional Economics
Cargo owner	Importers and exporters, also known as shippers.
CCA	*Competition and Consumer Act 2010*
CPI	Consumer Price Index
Crane intensity	Crane intensity is the total number of allocated crane hours divided by the elapsed time from labour first boarding the ship to labour last leaving the ship. Crane intensity is an input to calculating 'net crane rate' and 'ship rate'.
Crane rate	Crane rate is an indicator of capital productivity and reflects the intensity to which quayside cranes are worked. It is measured by dividing the total number of containers (TEUs) handled by the crane by the 'elapsed crane time'.
DP World	DP World Australia Ltd operates container terminals in Brisbane, Fremantle, Sydney and Melbourne.
DITCRD	Department of Infrastructure, Transport, Cities, and Regional Development.
EBITA	Earnings before interest, taxation, and amortisation.
Elapsed crane time	Elapsed crane time is the crane time allocated by the stevedores. It is computed as the total allocated crane hours less operational and non-operational delays. Elapsed crane time is an input to calculating the 'crane rate'.
Elapsed labour rate	Elapsed labour rate is an indicator of labour productivity. The elapsed labour rate is computed as the 'number of containers handled' divided by the 'elapsed labour time'.
Elapsed labour time	Elapsed labour time is the elapsed time between labour first boarding the ship and labour last leaving the ship, less any time the labour has not worked, including non-operational delays. Elapsed labour time is an input to calculating 'elapsed labour rate'.
Empty container park	Companies whose business is to store empty containers. They may also provide ancillary services such as container cleaning, repairs and repositioning.
Flinders Adelaide	Flinders Adelaide Container Terminal Pty Ltd, fully-owned by the South Australian port operator, is the sole container stevedore at Port Adelaide.
Hutchison	Hutchison Ports Australia, a member of Hutchison Port Holdings Group. Hutchison operates terminals in Brisbane and Sydney.
Infrastructure charge	Charges collected by stevedores on land transport operators when collecting or delivering laden (i.e. not empty) containers.
Land transport operators	Truck or rail operators under contract with cargo owners to transport container goods from the stevedores' container terminals to the cargo owner and vice versa.
Landside activities	Refers to activities facilitating the exchange of containers between land transport operators and container stevedores.
Lifts	A 'lift' refers to the lifting of a single unit of container.
Monitored port	Ports which under Part VIIA of the CCA are subject to price, cost and profit monitoring by the ACCC; covers the international container ports of Adelaide, Brisbane, Burnie, Fremantle, Melbourne, and Sydney.
Operating profit	Measured by earnings (revenue less cost) before interest, taxation and amortisation.
Patrick	Patrick Terminals operates container terminals in Brisbane, Fremantle, Sydney and Melbourne.

Profit margins	In this report, this is the ratio of EBITA and total revenue.
Quayside activities	Refers to the lifting of containers on and off container ships at berth.
Real terms	A value expressed in the money of a particular base time period (e.g. 2012–13 dollars). Values in real terms remove the impact of inflation and provide a better comparison of values over time.
Ship rate	The ship rate is an indicator of labour and capital productivity while the ship is being serviced by stevedores. It is calculated by multiplying the net crane rate by crane intensity.
Shipping lines	These companies facilitate the ocean-borne transport of containerised cargo from one port to another. Shipping lines may be directly under contract from cargo owners or through intermediary logistics companies. Shipping lines are the primary customers of stevedores.
Stevedores	Firms under contract with shipping lines and port authorities to operate specialist equipment that lift containerised cargo on and off ships in Australia's monitored container ports.
Tangible assets	The physical infrastructure used by stevedores to provide container stevedoring services e.g. cranes, straddle carriers or automated stacking cranes.
TEU	20 foot equivalent unit. TEU is the standard unit of measurement for shipping containers. One TEU is equivalent to one 20 foot shipping container. One 40 foot shipping container is equivalent to two TEUs.
VBS	Refers to the 'Vehicle Booking System'. The VBS is an online software tool that stevedores use primarily to allocate timeslots and manage demand by individual trucks looking to collect or drop-off cargo at the terminals. Stevedores charge various fees through the VBS. Hutchison employs a similar system to the VBS but is called 'Truck Appointment System'.
VICT	Victoria International Container Terminal Ltd, wholly owned by International Container Terminal Services Inc. VICT operates a container terminal in Melbourne.

Container stevedoring monitoring report 2018–19

Industry faced weak demand in container stevedoring services. Total lifts fell, with full container lifts falling significantly.

Competition has further reduced the dominance of incumbent stevedores Patrick and DP World. VICT is flourishing, while Hutchison has more work to do to be viable.

Revenue per lift went up despite increased competition. Stevedores have offset falling revenues by increasing infrastructure charges.

Industry profits remain subdued due to soft demand and higher costs. Some stevedores reported much higher profits, while the profitability of others worsened.

Various productivity indicators improved significantly in 2018–19. Productivity of some Australian container ports now appear on-par with comparable international ports.

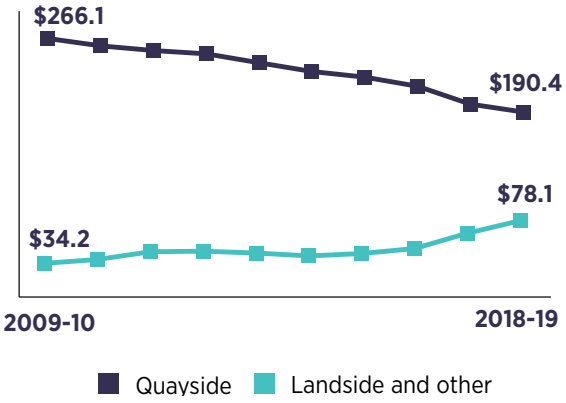
The report explored numerous developments in container shipping such as larger ships, mergers between shipping lines, and their enhanced bargaining power.

Key industry results 2018–19

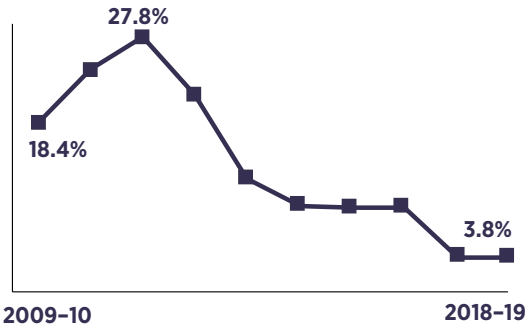
Revenues, costs and profits

Total revenue	Revenue per lift	Cost per lift	Profit margin*
$1371 m	**$268.5**	**$252.8**	**5.9%**
▲1.3%	▲1.8%	▲2.4%	▼0.5 pp

Per lift revenue



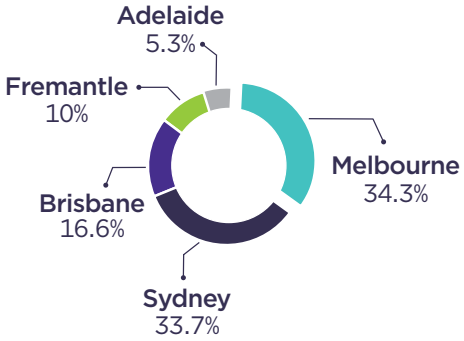
Return on tangible assets



Lifts per stevedore**

▲4.5%	Patrick	2.2 million
▼12.3%	DP World	2.0 million
▲0.8%	Hutchison	0.3 million
▲0.8%	Flinders Adelaide	0.3 million
▲147%	VICT	0.3 million

TEU per port**



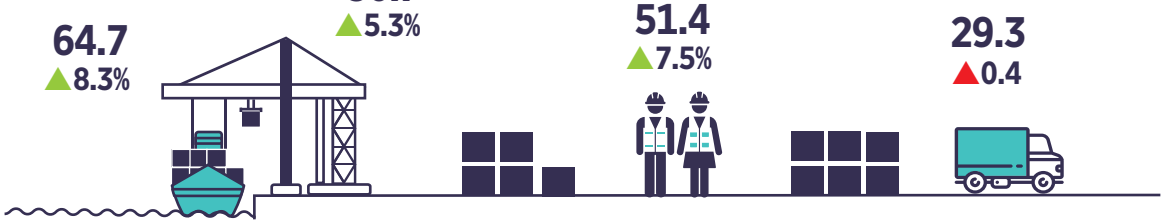
Container terminal productivity

Ship rate***
64.7
▲8.3%

Crane rate***
30.7
▲5.3%

Labour rate***
51.4
▲7.5%

Truck turnaround time (mins)
29.3
▲0.4



* Earnings before interest, tax and amortisation (EBITA) as a percentage of total revenue
** Includes international container terminal volumes only
*** Containers per hour

Executive summary

Container volumes contract for the second time in a decade

A weakening economy dampened demand for stevedoring services in 2018–19, with growth rates far below those reported in the previous year.

The number of lifts made by the international container stevedores fell for only the second time in the last decade. The stevedores reported 5.11 million lifts in 2018–19, down 0.5 per cent from the previous year. Lifts of full containers fell by 4.9 per cent while empty containers increased by 14.6 per cent.

Industry volumes were slightly better when measured on a TEU basis, as cargo owners continued to increasingly adopt forty-foot containers instead of twenty-foot containers. The container terminals reported handling a combined 7.88 million TEU in 2018–19. This represented growth of 0.2 per cent, the second lowest rate over the past ten years.

The slowdown in container volume growth reflects weakening economic activity in goods distribution industries such as retail and manufacturing. In addition, the drought in eastern Australia and floods in Queensland negatively impacted on volumes of various export commodities such as grain, hay and cotton.

Competition evident in the movement of lifts between stevedores

Competition has resulted in further shifts in the stevedores' shares of national lifts. Most notable was the share of lifts handled by DP World falling from 44.4 per cent in 2017–18 to just 39.1 per cent in 2018–19. However, fellow incumbent stevedore Patrick fared much better during the year, with its share of national lifts increasing from 41.5 per cent to 43.5 per cent, after it reported having won several new contracts during the period.

The dominance of the two largest stevedores was diluted further in 2018–19. The combined share of lifts by the two firms represented 82.6 per cent of national lifts, the lowest on record.

After just two years of operations, VICT has now established itself as an effective competitor in Melbourne. Its share of lifts in Melbourne more than doubled to around 15 per cent off after it won several shipping services during the period. On the other hand, Hutchison's share of total lifts in Brisbane and Sydney remained at 13 per cent.

Unit revenues increased for the first time in seven years on the back of higher infrastructure charges

Higher infrastructure charges helped to drive growth in unit revenues for the stevedores for the first time since 2011–12 and since third stevedores entered the industry at the east coast ports. Revenue per lift grew by 1.8 per cent to $268.5.

Quayside revenue per lift continued its downward slide in recent years to a low of $190.4 per lift, down 8.1 per cent from 2017–18. This decline reflects the continued growth in shipping lines' bargaining power with stevedores, as well as the relatively high proportion of empty containers. However, revenue from landside and other sources increased by 12.9 per cent to $78.1 per container due mainly to increases in infrastructure charges. These revenues now make up 29 per cent of the total.

The industry generated $167 million in revenue from infrastructure charges in 2018–19, an increase of 63 per cent from 2017–18. After DP World's decision to increase charges in Melbourne from around $49 to $85 from 1 January 2019, Patrick and VICT followed with increases of their own. Patrick now has the highest charges in Sydney ($77.50) and Brisbane ($71.50) following increases in March 2019. Infrastructure charges generated 12.2 per cent of the stevedores' revenues.

It is understandable for stevedores to seek to recover some costs from landside transport operators given that these operators benefit from the investment that the stevedores undertake in their facilities. However, the use of infrastructure charges means that stevedores are earning a growing proportion of their revenues from customers that are limited in being able to respond to those charges, in contrast to the competitive market in which stevedores provide services to shipping lines. The outcome of this may be that importers and exporters will pay higher charges to ship their goods than otherwise.

Infrastructure charges, which are only applied to full containers, helped to grow the disparity in average revenue generated from full and empty containers. Revenue per full container increased by 6.1 per cent to $244.1 in 2018–19. On the other hand, quayside revenue per empty container fell by 10.4 per cent to $175.5.

Industry-wide profitability remains low, however profitability varies significantly among individual stevedores

Some industry profitability indicators fell in 2018–19, continuing the trend reported in recent years. Industry operating profit fell by 4.7 per cent to $81.3 million and operating profit margin fell slightly to 5.9 per cent. While the industry's return on tangible assets was unchanged at 3.8 per cent, this figure has fallen from a high of 27.8 per cent in 2011–12. While stevedores have had to face growing bargaining power of the shipping lines in recent years, the significant fall in this latter figure also represents a much larger asset base due to the new container terminals in Brisbane, Sydney and Melbourne and, to a lesser extent, increased unit costs.

While some industry-wide profitability measures have clearly declined, it is important to note that performance varies greatly by stevedore. In 2018–19, most stevedores reported much improved profits or reduced operating losses, while some stevedores' profitability fell.

Consolidation amongst shipping lines has increased their bargaining power, while fuel costs will rise under low-sulphur regulations

The container shipping line industry continues to go through a period of change. The industry has been facing financial challenges since 2008 when the global financial crisis depressed container shipping demand and prices. Many shipping lines have since sought to deploy larger vessels in order to capture greater economies of scale, but this has prolonged the problem of overcapacity.

Shipping lines have also responded to this challenge by merging with their competitors. This has provided the remaining shipping lines with a stronger bargaining position with respect to the stevedores, with lower stevedoring charges the result. There is a degree of concern that the enhanced power of shipping lines, both as buyers and sellers, will result in unfavourable outcomes for stevedores, ports and cargo owners.

From 1 January 2020, all container shipping lines are required by the International Maritime Organisation (IMO) to significantly limit sulphur emissions by switching to fuel with a sulphur content no higher than 0.5 per cent. This compares to the current cap of 3.5 per cent. This is expected to significantly increase the cost of fuel and therefore prices for shipping cargo.

Australian port productivity improves, with some ports' productivity now on-par with comparable international ports

Productivity at Australian ports has increased significantly since the waterfront reforms of the late 1990s. In 2018–19, data provided by BITRE to the ACCC showed markedly improved productivity levels on the quayside. All three key indicators of quayside productivity—crane rate, labour rate and ship rate—went up by more than 5 per cent. In particular, labour and ship rates are now at record highs.

Using internationally-sourced information, the ACCC found that the productivity of Australian container ports now appear on par with ports of similar size and characteristics. Melbourne was the best performing of the Australian ports. The great distances between Australian ports, and therefore the limited potential for inter-port competition, may be a reason why Australian ports are not more productive.

DP World and Patrick continue to invest, others holding back for now

Stevedores had varying approaches to investment in 2018–19. DP World's large-scale investment program continued in 2018–19 resulting in a large increase in its tangible asset base. Five of the nine new Super-Post Panamax quay cranes DP World purchased arrived in 2018. The quay cranes are each worth around $14 million and are required to service the larger container ships increasingly being deployed on Australian container shipping routes.

Patrick capitalised less investment in 2018–19, but has committed $150 million across 2019–20 and 2020–21 on various quayside and landside equipment across its terminal portfolio. Hutchison, Flinders Adelaide and VICT all reported little investment in 2018–19.

ACCC initiated court action to enable the possibility of a container terminal at Port of Newcastle, and worked with stevedores to remove unfair contract terms

The ACCC commenced court action during the period in relation to contracts that may prevent the development of a new container terminal at the Port of Newcastle. The ACCC instituted proceedings against NSW Ports for making agreements with the State of NSW that the ACCC alleges had an anti-competitive purpose and effect. NSW Ports is the private operator of Port Botany and Port Kembla.

The relevant agreements were entered into as part of the privatisation of Port Botany and Port Kembla in 2013. The agreements oblige the State of NSW of compensate NSW Ports if container traffic at the Port of Newcastle is above a minimal specific cap. When the Port of Newcastle was then privatised in 2014, the deed required the new owner to reimburse the State of NSW for any compensation paid to NSW Ports. The ACCC considers that these arrangements make the development of a container terminal at Newcastle uneconomic, undermining the potential for competition. The trial is scheduled to commence in October 2020.

In a separate matter, the ACCC also worked with several container stevedores to remove terms from contracts that we considered were likely to be 'unfair' under the Australian Consumer Law. In April 2019, the ACCC announced that DP World, Hutchison and VICT had agreed to remove or amend terms in contracts for landside transport operators.

01

Introduction

Key issues explored:

- container stevedoring in Australia and the various services provided by stevedores
- the container freight supply chain
- the role of the ACCC in monitoring the container stevedoring industry, and
- the structure of the report.

1. Introduction

The port supply chain is a key component of the Australian economy. Every year, billions of dollars of goods are transported through container ports on their way to Australian households and workplaces. A supply chain that works efficiently brings goods to businesses and consumers at the lowest possible cost, and helps ensure the competitiveness of our exports. Container stevedores, which facilitate the transfer of containers between ships and trucks and trains, are a vital link in the supply chain.

This is the 21st container stevedoring monitoring report by the Australian Competition and Consumer Commission (ACCC). The ACCC is required by the Australian Government to monitor prices, costs and profits of container stevedores at international container ports in Adelaide, Brisbane, Burnie[1], Fremantle, Melbourne and Sydney. These reports provide information to governments and the community about the operating performance of the container stevedores, as well as the level of competition, investment and productivity in the industry.

We acknowledge the cooperation of the following organisations in the production of this report:

- container stevedores DP World, Flinders Adelaide, Hutchison, Patrick and VICT
- the Bureau of Infrastructure, Transport and Regional Economics (BITRE)
- the many industry associations, shipping lines, land transport operators, ports and cargo owners who met with us during consultations or otherwise provided information.

Three important terms that are regularly used throughout the report are:

- cargo owners—importers and exporters, also known as shippers
- quayside—activities directly related to the movement of containers on and off ships, and therefore the interaction between stevedores and shipping lines
- landside—activities related to the storing of containers at the terminal and the transfer of containers to and from truck and rail operators.

All prices and price movements in this report are in real terms unless otherwise specified.

1.1 Container stevedoring in Australia

Container stevedores are responsible for lifting containerised cargo on and off container ships at ports. They use ship-to-shore cranes for this purpose. Equipment such as straddle carriers, rubber-tyred gantries, and automatic stacking cranes may be used to facilitate the transfer of containers from the quay to the yard stack and to land transport operators and vice versa.

Quayside services to container shipping companies

Container stevedores compete for contracts to supply container handling services to liner shipping companies. The contracts require stevedores to provide berthing facilities in accordance with a specified sailing schedule. The contracts also require the provision of sufficient cranes, labour and other equipment, and at times for the stevedore to agree to certain key productivity standards. Once a ship has berthed, stevedores provide services such as the discharging and loading of containers on ships. Typically, the length of stevedore contracts with shipping lines ranges from around two to five years.

Landside services to land transport operators

Cargo owners contract with land transport operators to deliver their containers to and from ports. Land transport of containers to and from Australia's ports is facilitated primarily by trucks on road, while a smaller share is handled by rail.

1 Burnie does not currently have an international container terminal, however it did have one that was monitored by the ACCC until its closure in 2011.

Each stevedore is the sole provider of landside access to its respective terminal. They provide services such as receiving and delivering containers, yard services, storage, and other ancillary services to land transport operators. Stevedores use platforms such as the Vehicle Booking System (VBS)[2] to allocate time slots for trucks to collect their cargo at the terminal. Rail operators are offered access via rail windows.

Stevedores have in place standard agreements with truck operators for access to their VBS. These agreements allow truck operators to access stevedore VBS platforms and book timeslots but they are unable to negotiate their own individual terms of access (including pricing). Prices paid by land transport operators are overwhelmingly set on a take-it or leave-it basis, however some are subject to oversight (such as rail handling fees) in certain states.

The container freight supply chain

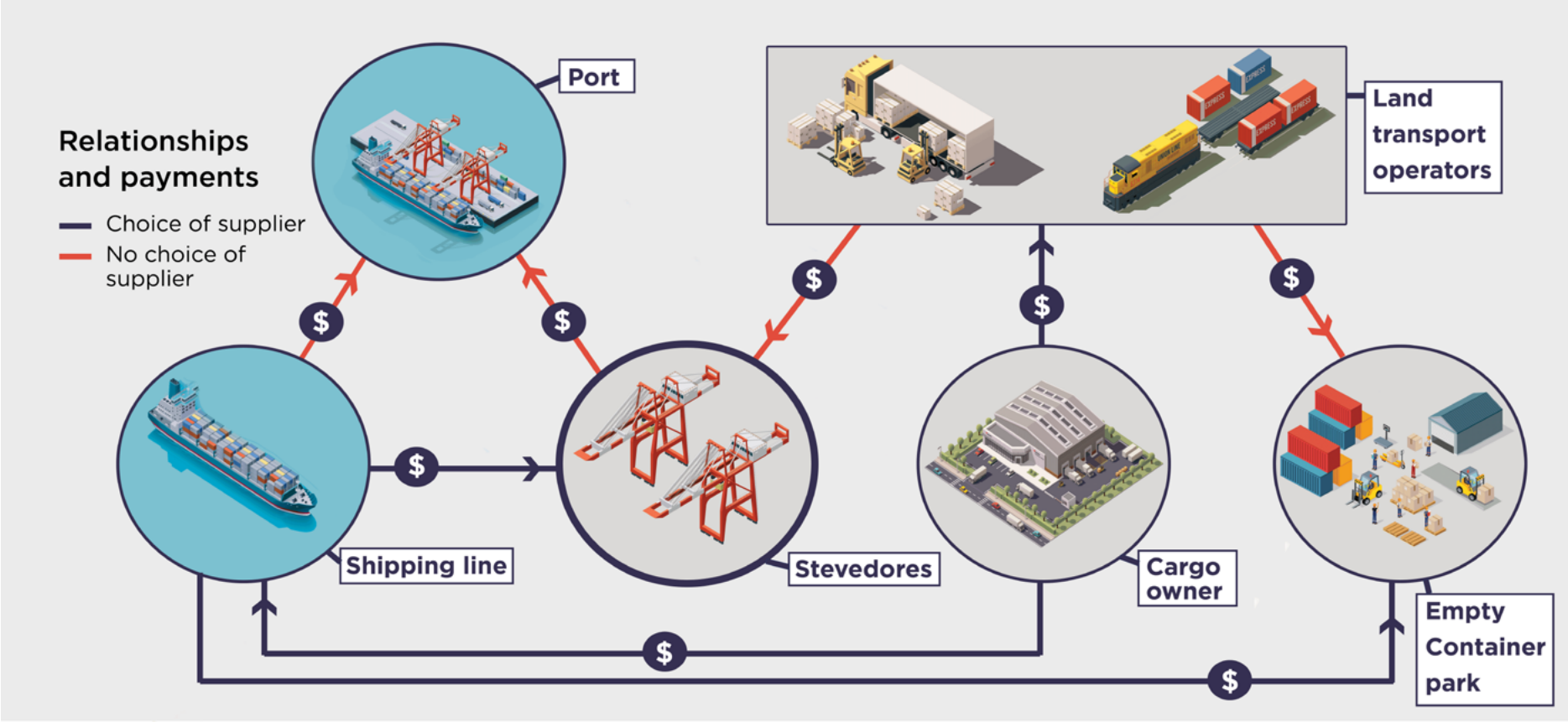
Container stevedores provide a crucial input in facilitating the transport of containerised freight from its origin to its destination. The stevedores are part of a broader freight supply chain with many participants, each of which can influence or are influenced by the performance of the stevedores. These include shipping lines, port authorities, cargo owners (importers and exporters), road and rail transport operators, related infrastructure operators such as intermodal terminals or empty container parks, as well as governments.

The containerised supply chain begins with a cargo owner selecting a shipping line to transport goods from the origin to the destination port. Shipping lines in turn transport the container by sea. Upon the ship's arrival at the port, stevedores load or unload the containers. The transport operator (either rail or trucking) is selected by the cargo owner and is responsible for picking up or delivering containers at terminals.

The main aspects of the container supply chain are illustrated in figure 1.1. The top half of the diagram shows the interaction between the many parties involved in the supply chain. Blue lines indicate that there is some degree of choice in the supplier of the service, while red lines indicate that the acquirer of the service does not have a choice. This lack of choice may be because there is only one supplier available (e.g. the port) or that the choice of supplier is made by another party along the supply chain. The bottom half of the diagram looks at the physical flow of containerised goods (whether imported or exported) along the supply chain.

2 Hutchison employs a similar platform but calls it the 'Truck Appointment System'.

Figure 1.1: Container freight supply chain



The container stevedores

There are now five container stevedores operating in Australia that are subject to the ACCC's monitoring program. Figure 1.2 specifies the stevedores in operation at each of Australia's monitored container ports.

Figure 1.2: Container stevedores in Australia's monitored ports

1.2 The ACCC's container stevedoring monitoring program

Part VIIA of the *Competition and Consumer Act 2010* (CCA) provides for the Australian Government to direct the ACCC to monitor prices, costs and profits in a particular industry and report its findings to the relevant Minister. In fulfilling this role, the ACCC must have particular regard to the following matters:

- the need to maintain investment and employment, including the influence of profitability on investment and employment
- the need to discourage a person who is in a position to substantially influence a market for goods or services from taking advantage of that power in setting prices, and
- the need to discourage cost increases arising from increases in wages and changes in conditions of employment inconsistent with principles established by relevant industrial tribunals.

In 1998, there was a protracted labour dispute between Patrick Terminals and the Maritime Union of Australia (MUA). Following the introduction of a workplace reform package by the Australian Government, the ACCC was directed by the government to monitor the prices, costs and profits of stevedores and provide a report to the Minister within a specified period after every financial year.[3]

3 On 20 January 1999, the Federal Treasurer directed the ACCC under s. 27A of the *Prices Surveillance Act 1983* (PSA) to monitor prices, costs and profits of container terminal operator companies at the ports of Adelaide, Brisbane, Burnie, Fremantle, Melbourne and Sydney. The PSA has since been repealed and the price surveillance provisions are now contained in Part VIIA of the CCA. The direction under the former s. 27A of the PSA is now deemed a direction under s. 95ZE of the CCA.

Given the environment at the time the direction was made, the initial purpose of the monitoring regime was to assess the impact of the reforms and to monitor the potential for wage-driven cost increases. Since then, the ACCC's reports have focussed more on the degree of competition between the stevedores, investment, and developments in productivity. The program also explores issues affecting the broader supply chain, including container shipping, road and rail transport, and intermodal facilities.

Relevant sections of Part VIIA are reproduced in appendix B. The Ministerial direction setting out the ACCC's price monitoring framework is included in appendix C.

Usefulness and limitations of the price monitoring framework

The ACCC does not consider a price monitoring framework without a credible threat of regulation to be an effective constraint on market power. However, in the case of container stevedoring, monitoring can be useful to:

- inform governments' freight policy and planning
- facilitate better decision making by industry participants by disseminating information that would otherwise be difficult or costly to collect, and
- scrutinise industry developments that may be a source of widespread concern or uncertainty.

1.3 Structure of this report

The remainder of this report is structured as follows:

- Chapter 2 provides an overview of developments and policy issues in the Australian container stevedoring industry.
- Chapter 3 examines developments in the broader freight supply chain.
- Chapter 4 examines changes in quayside and landside productivity in container stevedoring.
- Chapter 5 analyses the financial performance of the container stevedoring industry as a whole.
- Chapter 6 provides a comparative analysis of the performance of the five individual container stevedores subject to the monitoring program.
- Appendix A outlines more information about the ACCC's monitoring methodology for container stevedoring.
- Appendix B reproduces relevant sections of Part VIIA of the CCA.
- Appendix C outlines the Ministerial direction for the ACCC's container stevedoring monitoring role.

Supplementary information on trends in industry revenue, cost and profits, and on specific cost categories for each of the stevedores can be found on the ACCC's website.

02

State of container stevedoring in Australia

Key issues explored:

- movements in container volumes in 2018–19
- the current state of competition in the container stevedoring industry
- the stevedores' increases in infrastructure charges for trucks and rail operators
- recent developments in industrial relations
- international benchmarking of productivity of Australian container ports
- related infrastructure developments, and
- recent ACCC enforcement activity in container stevedoring.

2. State of container stevedoring in Australia

This chapter looks at the structure of the Australian stevedoring industry and explores the state of competition between terminal operators. It also considers significant infrastructure developments directly affecting the container stevedores. Where appropriate, this chapter will also discuss relevant ACCC competition and consumer enforcement activity in the container stevedoring industry.

2.1 Weaker container volumes in 2018–19

A weakening economy dampened demand for stevedoring services in 2018–19, with growth rates far below those reported in the previous year.

The number of lifts made by the international container stevedores fell for only the second time in the last decade. The stevedores reported 5.11 million lifts in 2018–19, down 0.5 per cent from the previous year, and far weaker than the 8.1 per cent growth in lifts experienced last year. The falling demand was most apparent in relation to lifts of full containers, which fell 4.9 per cent to 3.77 million. Lifts of full containers declined in both Melbourne and Brisbane, but grew solidly at Fremantle. In contrast, the industry reported a 14.6 per cent increase in the number of lifts of empty containers. Empty containers typically generate less revenue than full containers.

Industry volumes were slightly better when measured on a TEU basis, as 40 foot containers continued to be increasingly adopted by industry relative to 20 foot containers. The container terminals reported handling a combined 7.88 million TEU in 2018–19. This represented growth of 0.2 per cent, the second lowest rate over the past ten years. TEU volumes at Fremantle grew by 3.0 per cent while at other container ports growth was subdued. Stevedores reported a 2.7 per cent contraction in Brisbane TEU.

The slowdown in container volume growth in 2018–19 would be due to several factors. National economic activity has slowed with the growth in gross domestic product reminiscent of the slow recovery from the 2008 global financial crisis.[4] Economists also pointed to weak conditions in goods distribution industries such as retail and manufacturing during the year.[5] The ABS also reported that retailers have run down their inventory stockpiles[6] and that both housing construction and business investment levels have fallen.[7]

The drought affecting eastern Australia and floods in Queensland also had a detrimental impact on volumes of various export commodities such as grain, hay and cotton. However, the domestic scarcity of some commodities such as grain may have been offset to some degree by importation from overseas. New prohibitions put in place by numerous foreign governments on the importation of waste in containers also had a negative effect on full export volumes.[8]

Competition further reduces the dominance of incumbent stevedores DP World and Patrick

Competition has resulted in further shifts in the stevedores' shares of national lifts in 2018–19. Most notable was the share of lifts handled by DP World falling from 44.4 per cent in 2017–18 to just 39.1 per cent in 2018–19. DP World explained that the loss in volumes is a result of the loss of shipping contracts to competing terminals as well as other factors such as subcontracting of work to other terminals due to disruptions arising from the installation of new quay cranes and industrial action.

4 Australian Bureau of Statistics, Australian National Accounts: National Income, Expenditure, and Product—June 2019, accessed 11 October 2019.

5 National Australia Bank, NAB Monthly Business Survey—May 2019, accessed 10 October 2019.

6 Australian Bureau of Statistics, Quarterly Business Indicators—June 2019, accessed 11 October 2019.

7 Australian Bureau of Statistics, Private New Capital Expenditure and Expected Expenditure—Australia—June 2019, accessed 11 October 2019.

8 The Sydney Morning Herald, Australia faces deepening recycling crisis as India bans plastic waste imports, 2019, accessed 10 October 2019.

However, fellow incumbent Patrick fared much better during the year, with its share of lifts increasing from 41.5 per cent to 43.5 per cent, after it reported having won several new contracts.

Despite Patrick and DP World still being the dominant players in Australian stevedoring, their combined national share of lifts continued to fall in 2018–19. The two firms recorded a combined national share of 82.6 per cent of national lifts. This result is the lowest on record and down from 85.9 per cent in 2017–18. This continued a trend of decreasing market share for these two firms since the entry of Hutchison in 2013 and VICT in 2017.

VICT flourishing in Melbourne while Hutchison has more work to do to be viable

While the decreasing national share of the two largest stevedores may be a sign of competition from relative newcomers Hutchison and VICT, their effectiveness as competitors is varied.

VICT has now established itself as an effective competitor in the Melbourne container stevedoring market after just two years of being fully operational. VICT's share of lifts in Melbourne more than doubled in 2018–19 off the back of winning several shipping services and accounted for around 15 per cent of the market. VICT's substantial investment in developing one of the world's most fully automated container terminals may mean that it can scale up its operations without seeing an increase in variable costs or a deterioration in service levels.

VICT is said to have been able to fully leverage its competitive edge in consistently and efficiently handling larger vessels conferred by operating at Webb Dock.[9] Indeed, we understand that a major factor of VICT winning the Melbourne call of the A3C service[10] is its better ability to handle larger vessels. VICT said that it was also successful in tendering for the Melbourne calls of the CAE/A1X[11] and the YoYo/Panda service although the YoYo/Panda service was suspended for much of the reporting period due to various reasons.[12] VICT also confirmed that the revised AAX1/Cobra service will be calling at its Melbourne terminal.

On the other hand, Hutchison has not been able to build its share of lifts at their locations in Sydney and Brisbane. Hutchison accounts for around 6 per cent of national lifts, with a share of around 13 per cent of the Sydney market by January 2019.[13] While Hutchison won the Brisbane call of CAE/A1X service during the period, some stakeholders including shipping lines consider that without further investment, it is difficult to see Hutchison winning more contracts and making inroads into the dominance of Patrick and DP World in its markets. This is particularly relevant for Hutchison's Brisbane terminal which is currently operating with just one berth.

No major changes in services at Flinders Adelaide

There were no major changes in shipping services calling at the only international container stevedoring terminal in Adelaide over the period. Flinders Adelaide's share of national lifts was steady at 5.7 per cent in 2018–19. Flinders Adelaide reported having renewed contracts with COSCO Group incorporating the ASAL and AAA services, and CMA-CGM Group incorporating the NEMO, AAX and PCX services during the period.

9 M Stevens, Super-major shipper flexes muscle with DP World Australia, *Australian Financial Review*, accessed 10 October 2019.

10 International Container Terminal Services Inc., Melbourne proves big ship competence, 2018, accessed 11 October 2019.

11 Hyundai Merchant Marine, HMM launches China-Australia Express Service, 2018, accessed 20 June 2019.

12 Mediterranean Shipping Company, MSC announces a temporary suspension of its Panda service, 2019, accessed 10 October 2019.

13 NSW Ports, New South Wales Parliamentary Inquiry Submission—Impact of Port of Newcastle sale arrangements on public works expenditure in New South Wales, 2019, accessed 10 October 2019.

2.2 Unit revenues rise for the first time since the end of the duopoly on the east coast

While the ACCC does not collect actual prices charged by stevedores on all services, the ACCC uses revenue per lift as a proxy for prices charged per unit of output.

Stevedores reported an increase in revenue per lift by $4.8 to $268.5 in 2018–19. While in real percentage terms the increase was relatively small at 1.8 per cent, it was nonetheless notable given that it was the first reporting period in which revenue per lift has increased since Hutchison's entry on the east coast in 2013.

Stevedores earn revenues from both quayside operations (paid mostly by shipping lines) and landside operations (paid mostly by truck and rail operators). Quayside revenue per lift continued to slide to new lows. It was at $190.4 per lift in 2018–19, down 8.1 per cent from the previous period. This decline likely reflects the continued growth in shipping lines' bargaining power with stevedores, as well as the higher proportion of empty containers handled in 2018–19.

In contrast, revenue from landside and other sources increased by 12.9 per cent to $78.1 per container due to increases in infrastructure charges, other landside access charges as well as other ancillary terminal fees. The proportion of landside and other revenue continued to increase, from 25 per cent to 29 per cent of total revenue, with only 71 per cent of total revenue now being generated from shipping lines.

Growing disparity in average revenue generated from full and empty containers

Stevedores typically generate more revenue per lift from a full container than an empty container. The ACCC has been advised that one reason for this is that temporary storage charges may be incorporated into tariffs charged to shipping lines for lifting full containers. This is because a full export container is more likely to dwell at the terminal prior to being loaded on to the vessel, whereas an empty container will typically be delivered to the terminal within 24 hours of the designated vessel arriving. Tariffs paid by shipping lines for full containers may also cover related cargo insurance costs.

The ACCC also understands that higher tariffs for lifting full containers are partly due to the fact that these costs are directly passed on by shipping lines to the relevant cargo owner through terminal handling charges. In contrast, the movement of empty containers between ports represents a cost to the shipping lines. Some terminals whose markets experience shortages in empty containers required for exports may also set lower prices specifically to incentivise empty container imports.

Stevedores also generate more revenues for handling a full container from a landside perspective. This is because full containers incur infrastructure charges paid by truck and rail operators, while empty containers do not.

In 2018–19, stevedores collected an average of $244.1 in revenues for each full container handled, an increase of 6.1 per cent from the previous year. While the quayside component of this revenue fell by 2.1 per cent to $199.9, this was more than offset by large increases in infrastructure charges at most container ports. These figures do not take into account costs from other access charges (such as VBS/TAS slot fees, rail access and lift fees) which vary substantially in quantum and application between stevedores.

From a quayside perspective, there was substantial variation in the average revenue per full container across the twelve container terminals at the monitored ports in 2018–19. Average revenue was lower in the east coast where there is increased competition. The ACCC observed less variation in average full container revenues with some lower charging terminals reporting increased average full container revenues during the year.

In relation to empty containers, stevedores reported a sharp 10.4 per cent fall in quayside revenue per lift to $175.5 in 2018–19. While drastic reductions in empty container lift revenues were observed at a number of container terminals, some terminals reported higher average revenues. Similarly, these

figures do not take into account any other access charges that may apply (such as VBS/TAS slot and stack run fees). Average revenues generated by empty containers are now 39.0 per cent below that for full containers.

2.3 Recent increases in infrastructure charges

Stevedores' infrastructure charges have been a controversial matter for the industry in recent years with cargo owners, land transport operators, state governments, and a number of port authorities and shipping lines raising concerns with the ACCC. Infrastructure charges are fees charged by stevedores to trucks and trains for collecting or dropping off full containers at their terminals.

Table 2.1 and Figure 2.2 show that these charges continued to rise in 2018–19. All three stevedores in Melbourne are now charging between $82 and $86 per full container, following DP World's decision to increase charges from $49.20 to $85.30 from 1 January 2019. Following increases in March 2019, Patrick now has the highest charges in Sydney ($77.50) and Brisbane ($71.50).

Table 2.1: Recent and upcoming increases in infrastructure charges by stevedore and port

	DP World		Patrick		Hutchison			VICT		Flinders Adelaide	
	2017-18	2018-19	2017-18	2018-19	2017-18	2018-19	2019-20*	2017-18	2018-19	2017-18	2018-19
Adelaide										$28.50	$28.96 +1.6%
Brisbane	$38.75 +18.4%	$65.15 +68.1%	$38.25 +17.5%	$71.50 +86.9%	$32.60 +1.9%	$33.10 +1.5%	$50.00 +51.6%				
Fremantle	$8.22 +0.0%	$8.22 +0.0%	$7.50 +57.6%	$7.50 +0.0%							
Melbourne	$49.20 +51.4%	$85.30 +73.4%	$47.50 +48.4%	$82.50 +73.7%				$48.00	$85.00 +77.1%		
Sydney	$37.65 +77.9%	$63.80 +69.5%	$41.10 +61.5%	$77.50 +61.5%	$10.45	$35.84 +243.0%					

Note: prices are exclusive of GST.* Hutchison applied a $50 infrastructure charge from 18 August 2019.

Flinders Adelaide's charge at its Adelaide terminal increased by CPI to $28.96. Flinders Adelaide said it will continue to cap its increases by CPI until 2020–21. Both DP World ($8.22) and Patrick ($7.50) left their charges unchanged in Fremantle, pending ongoing negotiations with the Fremantle Port Authority on the terms of their respective container terminal leases.

The industry generated $166.6 million in revenue from infrastructure charges in 2018–19, an increase of 63 per cent from 2017–18. While the revenue increase from infrastructure charges was significant, this was lower than anticipated due to an unforeseen significant contraction in full container lifts. Infrastructure charges now account for 12.2 per cent of stevedores' revenues.

Stevedores' rationale for the infrastructure charges

The stevedores have pointed to a number of reasons for the increase in infrastructure charges in recent years, with the most prominent being:

- falling prices being charged to shipping lines because of both greater competition between stevedores and a stronger bargaining position of shipping lines as a result of consolidation
- sustained and significant increases in their property-related costs, and
- the need to maintain adequate returns required to recover past investments and justify future investments in quayside and landside terminal facilities.

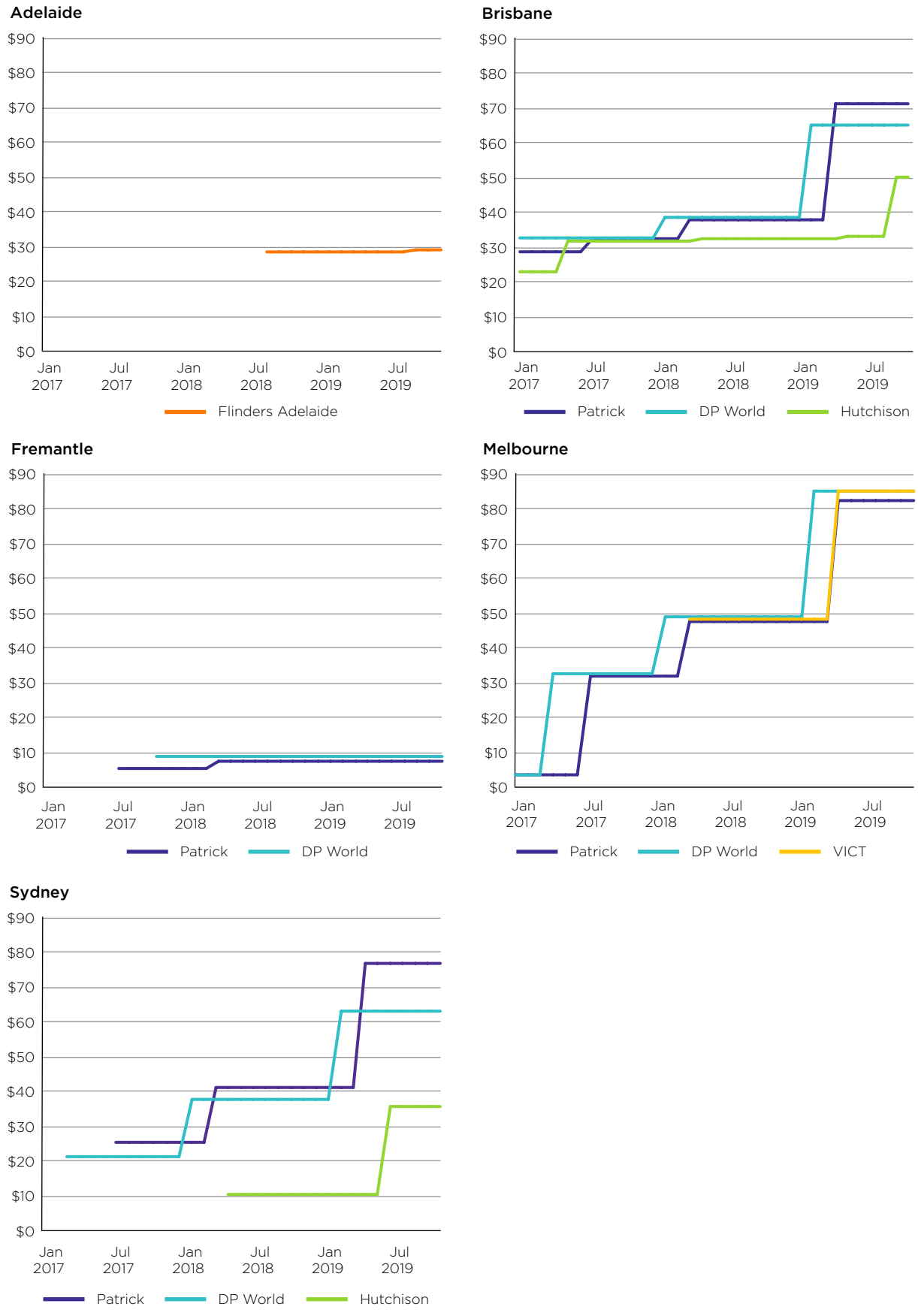
Stevedores consider that they are facing a weakening bargaining position relative to shipping lines. This dynamic follows recent consolidation in the industry as well as ongoing protection from competition law for coordinated conduct by the shipping lines under Part X of the CCA. This has led to a continued downward pressure on the stevedoring rates paid by shipping lines and an erosion in return on tangible assets by stevedores.

The industry continued to report increases in total property costs in 2018–19, which rose by 9.2 per cent on a per-lift basis. However, very large increases in property costs were observed only in Melbourne and Adelaide. Melbourne port rents rose due to the commencement of VICT's Phase 2 lease costs as well as large increases to land rents for the Swanson Dock-based stevedores Patrick and DP World. Adelaide rents increased following a market rent review by Flinders Ports, which the port had not conducted for some time. Stevedores' costs are explored in more detail in chapter 5.

Stevedores also continue to invest, in particular DP World and Patrick, to enable them to more efficiently service larger container ships increasingly being deployed on Australian ports and/or improve terminal landside handling capacity. The stevedores' investments are discussed further in chapter 6.

In response to all the above factors, stevedores have sought to continue to rebalance their cost recovery away from quayside users (shipping lines) and towards land transport operators through significant increases in infrastructure charges.

Figure 2.2: Increases in infrastructure charges since 2017



Concerns about the infrastructure charges

Road and rail land transport operators have raised significant concerns with the imposition of the charges given that they are not a product of commercial negotiation. The transport operators must go to the stevedore to which they are directed and therefore have no means to move their business in order to avoid price increases. The transport operators have also said that the fast rising charges impose a significant cash flow burden, although this has been assisted by stevedores increasing the length of their payment terms.

The impact of the infrastructure charges will be felt by either transport operators, cargo owners or consumers, depending on the degree to which the cost can be passed on. We understand from conversations with stakeholders that the transport industry is typically passing on the cost of the infrastructure charges to cargo owners. It also appears that many transport operators are adding an administrative fee on top of the infrastructure charge.[14] However, the scale of criticism from transport operators, both conveyed to the ACCC and made in public, suggest that many are not able to fully recoup all the costs associated with the charges, including any burden for smaller operators associated with holding the additional debt until they receive payment from their customers.

It therefore falls to cargo owners to ultimately impose a competitive restraint on infrastructure charge increases. Given that cargo owners have a degree of ability to switch to different shipping services, and by extension to a different stevedore, stevedores are not fully insulated from competitive forces in choosing to rebalance their prices towards the landside.

However, the ACCC understands there are considerable limitations to cargo owners' ability to competitively respond to the charges. While Asian trades are plied by many shipping services, there are very few shipping services offering direct calls to North American or European markets from which cargo owners can choose. A substantial number of cargo owners also enter into long-term contracts with shipping lines to access lower freight rates and may not readily be able to respond to landside price increases. Larger cargo owners have said that they have to spread their cargo to many different shipping services, and do not have the option to choose which stevedore is used, to minimise inventory risks from vessels not keeping to schedules and fluctuations in product demand. Similarly, those shipping to specific export markets have expressed that they do not have the option of switching to a different stevedore providing more competitive landside charges if it meant that shipping services they will have to use offer inferior speed to market from transhipment connections and longer transit times.

While shipping lines advise cargo owners of the specific terminals used by their shipping services, the ACCC understands that if transactions are conducted through freight forwarders, the advice on which terminal is used, and at times which vessel the cargo will travel on, often comes after transactions are completed. Cargo owners using these services may not be empowered in choosing their supply chain service providers. At all times, cargo owners are encouraged to shop around and give their business to intermediary logistics companies which provide such information in a timely manner. However, discussions with stakeholders suggest that such transparency issues are widespread in the forwarding industry and may not be easy to overcome through switching.

In addition, under Part X of the CCA, shipping lines are allowed to coordinate their behaviour in the provision of services on Australian trade routes and not face enforcement action under competition law as long as they register an agreement setting out how they propose to coordinate with Department of Infrastructure Transport, Cities, and Regional Development and Cities (DITCRD). As a result of shipping lines' vessel sharing arrangements, many of the shipping services on offer use the same ships and, by extension, the same stevedore. This restricts cargo owners' ability to choose stevedores.

The viability of a cargo owner attempting to minimise their exposure to infrastructure charges is also lessened due to the current pricing movements by the stevedores. At ports where there are multiple operators, stevedores have generally set their infrastructure charges at relatively similar levels. But even where a cargo owner may be able to direct their goods through a stevedore offering a lower

14 See for example: The statement from Mr Neil Chambers (Container Transport Alliance of Australia) to the public hearing (13 March 2019) of the Senate Rural and Regional Affairs and Transport Reference Committee inquiry into the Policy, regulatory, taxation, administrative and funding priorities for Australian Shipping; and the Freight Trade Alliance (FTA) and Australian Peak Shippers Association (APSA) summary of their submission to the Freight Victoria review of Port Pricing and Access, 16 October 2019.

infrastructure charge, the frequent price revisions occurring within the industry mean that the chosen stevedore may simply be the next to increase their charge.

The magnitude of the impact of the charges on importers and exporters will vary significantly among different supply chains. For example, infrastructure charges would have the most impact on an Australian exporter of a low value product for a world market (such as containerised grain). Some exporters have also reportedly said that the pace of infrastructure charge increases have dampened their confidence and ability to invest in their facilities.[15] In contrast, the charges would have much less impact on an importer of high value products (such as mobile phones). This is because not only would the increased cost per unit likely to be small, but the importer would not be competitively disadvantaged given that their competitors are likely subject to the same charges. However, this does not necessarily mean that cost inefficiencies in the supply chain may be completely ignored.

The impact of the infrastructure charges also depends upon whether cargo owners are benefitting (through lower 'terminal handling charges') from the corresponding reduction in stevedores' quayside charges to shipping lines. The ACCC does not have this information but has been advised that terminal handling charges have not generally been reduced.[16]

The ACCC's views of the impact of the infrastructure charges remain the same as those reported in the 2017–18 monitoring report. It is understandable for stevedores to seek to recover some costs from landside transport operators given that these operators benefit from the investment that the stevedores undertake in their facilities. However, the use of infrastructure charges means that stevedores are earning a growing proportion of their revenues from customers that are more limited in being able to respond to those charges, in contrast to the competitive market in which stevedores provide services to shipping lines. The outcome of this may be that importers and exporters will pay higher charges to ship their goods than otherwise.

While the continued increases in infrastructure charges are of concern and worthy of consideration by policy makers, the ACCC does not have the power to determine stevedores' charges and many of the key issues are beyond the scope of the ACCC's monitoring mandate. The infrastructure charges currently do not appear to substantially lessen competition in a market. However, we do recognise that infrastructure charges could potentially be used by stevedores to favour their own vertically-affiliated land transport or intermediary logistics business, such as by waiving or reducing the fee. While multiple stevedores are vertically-integrated, there is currently no evidence to suggest that this conduct is occurring. However, the ACCC could take enforcement action should such conduct be detected and it occurs with the purpose or effect of substantially lessening competition in a market.[17]

The economic regulation of stevedores and ports more generally rests with state governments. The stevedores' services and the container ports more generally are not declared under the National Access Regime under Part IIIA of the CCA.[18] Furthermore, the operation ports are generally matters between the port manager and state governments and are typically negotiated at the time of privatisation.[19]

The ACCC notes that the Victorian Government is conducting a review of port pricing and access in response to concerns about the flow-on costs to industry and consumers from the increases in infrastructure charges. We encourage such state reviews to carefully consider the issues discussed above before determining the need for regulation.

15 Freight and Trade Alliance (FTA) and Australian Peak Shippers Association (APSA), FTA/APSA Submission to the Victorian Government's Port Pricing and Access Review, 2019, accessed 16 October 2019.

16 In addition, some shipping lines have said in public forums that they have not reduced their terminal handling charges commensurate with falling stevedoring charges to improve returns and maintain commercial viability. For example, see from minute 1:23:00 of: VISA Global Logistics Industry Forum 2019 – Live Stream.

17 *Competition and Consumer Act 2010* (Cth), s 46 (Misuse of market power).

18 *Competition and Consumer Act 2010* (Cth), s 44CA.

19 Fremantle port is the only port subject the container stevedoring monitoring regime that has not been privatised.

Freight Victoria review of pricing and access at the Port of Melbourne

Freight Victoria has been asked to 'investigate options for the future role of (the Victorian) Government in regulating pricing and access to and from the Port of Melbourne'.[20] Freight Victoria stated that the review was in response to industry concerns about the flow on costs to industry from the increases in stevedore infrastructure charges. Freight Victoria has established a Review Advisory Board to oversee the review.

In May 2019, the Minister for Ports and Freight approved the review's terms of reference, which includes assessing the reasons for increases in infrastructure charges, as well as their impact on the wider supply chain. The review will then consider whether to recommend regulatory or other options to improve the efficiency of prices and charges at the Port of Melbourne, as well as any issues relating to access.[21] The Review Advisory Board has appointed Deloitte as the independent reviewer to conduct the review.

The final report is to be submitted to the Review Advisory Board by the end of 2019.

2.4 Industry profitability remains low

Some industry profitability indicators fell in 2018–19, continuing the trend reported in recent years. The Industry-wide operating profit margin fell slightly (by 0.5 percentage points) to 5.9 per cent. The industry's return on tangible assets was unchanged at 3.8 per cent[22] in 2018–19, however this figure has fallen from a high of 27.8 per cent in 2011–12.

There are a number of reasons behind this trend. The most significant is the entry of a third stevedore at the three largest ports of Melbourne, Sydney and Brisbane. The new entrants have increased competition for shipping line contracts, likely reducing pricing power and causing significant falls in the amount of revenue that stevedores receive per lift. The new container terminals built by Hutchison and VICT also resulted in a sizeable increase in the industry asset base, which has the effect of pulling down industry measures of return on assets.

At the same time, the shipping industry has also gone through a lot of change. The consolidation within the industry, accentuated by their continued protection for coordinated behaviour under Part X of the CCA, means that shipping lines would have improved their bargaining power even if there had not been more stevedores in the market. This has likely further reduced quayside revenues for stevedores and therefore profitability.

While some industry-wide profitability measures continued to decline during the year, it is important to note that performance varies greatly by stevedore. In 2018–19, most stevedores reported much improved profits or reduced operating losses, while some stevedores' profitability fell.

Industry profitability is explored further in chapter 5.

2.5 Industrial relations

Industrial relations continue to be a factor influencing the productivity and cost efficiency of the Australian container stevedoring industry. During the period, both DP World and Hutchison experienced disruptions to operations as a result of industrial action, while VICT's court action against unions progressed.

However, Flinders Adelaide continued to report a more benign industrial relations environment in Adelaide with the terminal experiencing minimal operational disruptions and disputes.

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20 Department of Transport (Victoria), Port infrastructure pricing and access review, 2019, accessed 10 October 2019.

21 Freight Victoria, Port Pricing and Access Review Terms of Reference, 2019, accessed 11 October 2019.

22 In the previous monitoring report, the 2017–18 rate of return on tangible assets reported was 2.1 per cent. This value has been revised to 3.8 per cent in this report. The revision largely reflects the removal of various items attributable to assets or services not directly related to container stevedoring reported in previous periods.

Industrial action at DP World terminals

The most significant industrial dispute occurred at DP World's terminals in Melbourne, Sydney, Brisbane and Fremantle, with around 1800 workers stopping work for between 48 and 96 hours in July 2019. This followed a three month peace agreement with the Maritime Union of Australia (MUA), following earlier industrial action.[23]

The disruption was felt along the container freight supply chain. Freight & Trade Alliance claimed that the July stoppage would cost the transport industry around $10 million in direct costs from re-transporting containers, penalty rates for extra hours and truck delays.[24]

DP World and the MUA commenced negotiations for a replacement enterprise agreement in September 2018. The last enterprise agreement nominally expired on 28 February 2019. The parties have not come to an agreement at the time of publication.

Industrial action at Hutchison terminals

Hutchison was also impacted by industrial action in 2018–19. The MUA initiated protected industrial action in January 2019 following a dispute over Hutchison's attempts to reform pay and conditions for workers at its terminals.[25] Hutchison was forced to sub-contract out 11 vessel calls as a result of the industrial action.

Hutchison appealed the industrial action through the Fair Work Commission. The Commission refused Hutchison's application. It decided that although industrial action would almost always result in costs to employers and potentially their clients and customers, the legislative regime allows for industrial action in many circumstances.[26]

Ongoing litigation between VICT and the CFMMEU

In November 2017 a picket lasting 19 days closed the VICT terminal at Webb Dock in Melbourne. It related to a disagreement over whether a particular worker had the appropriate accreditation to work at the site. In an injunction against individuals involved, the Supreme Court of Victoria found that the blockade was unlawful.

In December 2018 the CFMMEU pleaded guilty to civil contempt arising out of their conduct in breaching the exclusion zone ordered by the court.[27] The CFMMEU was fined $125 000 plus costs on an indemnity basis.[28]

It was also reported that VICT was pursuing damages of up to $100 million from the MUA and the Construction Forestry Maritime Mining Energy Union (CFMMEU) over the picket due to 'loss of business growth'.[29] VICT said that its damages case against the MUA and CFMMEU is ongoing.

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23 D Marin-Guzman, DP World hit by national waterfront strikes, *Australian Financial Review*, 2019 accessed 11 October 2019.

24 D Marin-Guzman, DP World strike expected to cost industry $10m, *Australian Financial Review*, 2019, accessed 11 October 2019.

25 D Marin-Guzman, Hutchison loses unprecedented bid to delay MUA industrial action, *Australian Financial Review*, 2019, accessed 11 October 2019.

26 D Marin-Guzman, Hutchison loses unprecedented bid to delay MUA industrial action, *Australian Financial Review*, 2019, accessed 11 October 2019.

27 Supreme Court of Victoria, Victoria International Container Terminal Ltd v Construction, Forestry, Maritime, Mining and Energy Union—Contempt—Sentence, 2019, accessed 11 October 2019.

28 Supreme Court of Victoria, Victoria International Container Terminal Ltd v Construction, Forestry, Maritime, Mining and Energy Union—Contempt—Sentence, 2019, accessed 11 October 2019.

29 D Marin-Guzman, MUA facing lawsuit of '$100m picket' at Port of Melbourne, *Australian Financial Review*, 2019, accessed 12 October 2019.

2.6 Benchmarking of Australian container port quayside productivity

Historically, Australian container ports have been regarded as having relatively poorer productivity, with various quayside productivity measures well below international standards.[30] The productivity issue culminated in a heated industrial deadlock in 1998 between the maritime union and stevedores which would be broken by significant workplace reforms introduced by the government. While productivity has undoubtedly improved since that time, many stakeholders in the container supply chain continue to hold the view that Australian container terminals trail their overseas counterparts.

This section looks to advance this discussion by benchmarking the berth productivity of Australian container ports with a suite of other ports, and where possible provide insights explaining the productivity outcomes observed. International comparisons of container port productivity can be challenging due to the varying methodologies employed by various port authorities, statistical agencies, and other bodies. However, this section will present data collected and analysed using consistent methodologies by research firm IHS Markit. This data enables a like-for-like comparison of productivity between Australian and international container ports.

The information presented in this chapter is methodologically distinct from productivity and efficiency data traditionally reported by the ACCC, which is generously provided to us by BITRE from its Waterline program. Data from BITRE's Waterline is presented in chapter 4.

Importance of berth productivity

Berth productivity, or the efficiency of container terminals in turning ship calls around, is an important measure of container terminals' productivity and has direct bearing on the efficiency of supply chains.

For shipping lines, less time spent by ships at berth may enable them to realise lower operating costs if it enables them to justify lowering ship speeds (and therefore lower fuel consumption) in a service without compromising competitive call frequencies. Less time at berth may also enable shipping lines to deploy less ships in the service and maintain a competitive and frequent number of calls. Conversely, less time at berth may enable shipping lines to broaden the geographic scope of their services by visiting more ports without having to deploy more ships in the process.

For stevedores, higher berth productivity can help reduce or alleviate congestion, especially as container throughput continues to rise. Higher berth productivity also creates additional handling capacity, ultimately enabling the terminal to handle higher volumes and generate increased revenue from the same fixed-cost asset base.

To the extent that they are passed on, the service and cost efficiencies arising from higher berth productivity would ultimately benefit Australian cargo owners particularly those competing in international export markets.

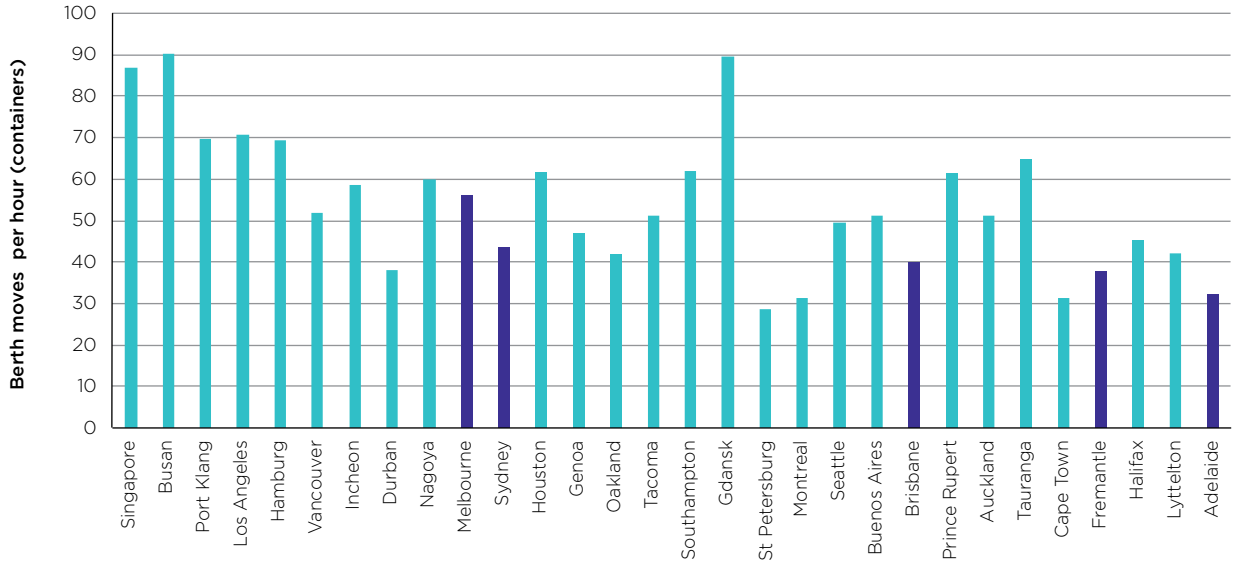
Berth productivity of Australian container ports relative to international ports

In our analysis, berth productivity is measured by the gross number of containers moved during the time between a ship's arrival and departure from berth, with no adjustments for labour or equipment down time regardless of the reason.

Figure 2.3 illustrates the varying berth productivities of Australian ports relative to a sample of other container ports during 2018–19. At a glance, Australian container ports appear to be much less productive compared to other ports. Melbourne is Australia's most productive container port at around 56 container moves per hour, but this is substantially less than levels achieved by other ports such as Busan and Gdansk with around 90 container moves or Singapore with around 87 container moves. Sydney, Brisbane, and Fremantle moved even less at around 40 container moves per hour each, with Adelaide trailing with around 32 moves per hour.

30 Productivity Commission, International benchmarking of container stevedoring, 2003.

Figure 2.3: Berth productivity of Australian and selected overseas ports (ordered from largest port to smallest port by annual TEU): 2018–19



Source: World Shipping Council, *Top 50 World Container Ports* and other sources (TEU data); IHS Markit (berth productivity data).

However, it is important that comparisons of productivity are done relative to ports with similar characteristics. Different operating and other structural conditions would likely apply at higher TEU ports which would make comparisons with Australian ports not meaningful. For example, Singapore is a maritime 'hub' port with its volumes subject to competition from nearby hub ports such as Port Klang and Tanjung Pelepas.[31] As a result, Singapore would have a strong commercial incentive to improve berth productivity, among other measures, to maintain customers.

This compares to Australian container ports which are 'origin or destination' ports with much of the cargo they handle captive and not subject to competition from other ports. This is due to the large distances between the ports, which means that very few users can choose to move their business to a different port if they are not satisfied with the quality of service or price. In contrast, we understand that the relatively close proximity (around 200km) of the ports of Auckland and Tauranga has led to inter-port competition between the two for shipping calls and stronger incentives to lift throughput and productivity.[32]

In addition, larger ports would also generally benefit from increased economies of scale and would have better flexibility in asset deployment compared to smaller ports. Figure 2.4 shows the difference in TEU handled by the selected ports. The port of Singapore, with over 200 quay cranes and 67 berths[33], has an annual TEU of around 13 times that of the Port of Melbourne, 10 times more quay cranes and eight times more berths.[34]

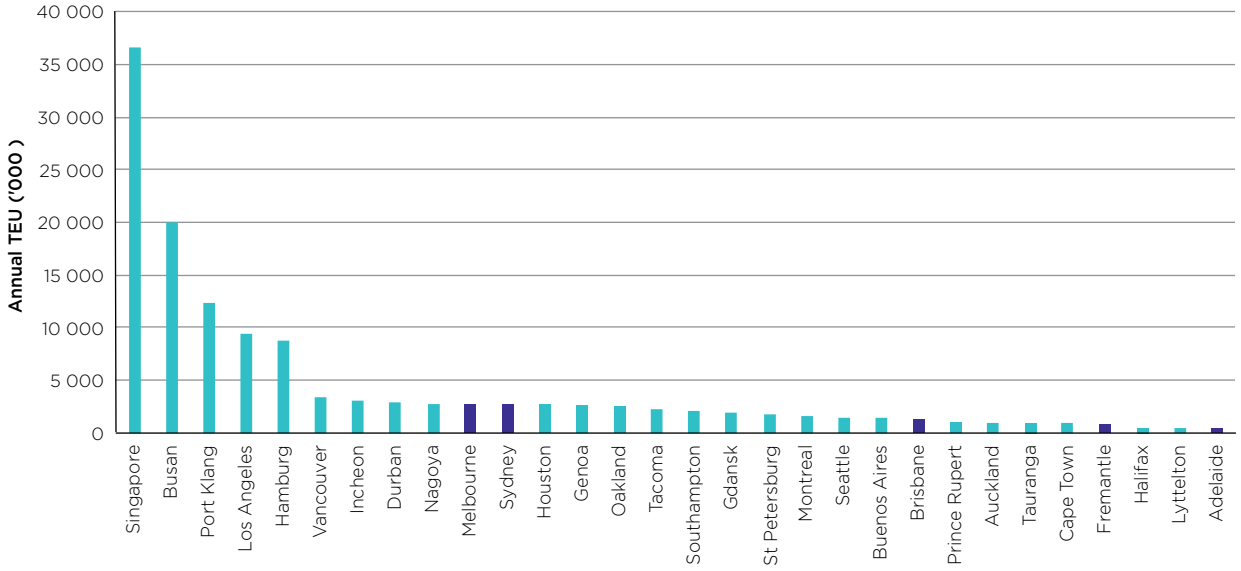
31 C Kavirathna, T Kawasaki and S Hanoka, Transhipment Hub Port Competitiveness of the Port of Colombo against the major Southeast Asian Hub Ports, The Asian Journal of Shipping and Logistics, vol. 34 no. 2, 2018.

32 Ministry of Transport New Zealand, Upper North Island Supply Chain Strategy—Summary of stakeholder submissions, 2019, accessed 9 October 2019.

33 Ship Technology Global, Profile—Port of Singapore, 2017, accessed 21 October 2019.

34 Adapted based on GHD estimates of Port of Melbourne infrastructure in 2017. GHD, Second container Port Advice – Estimated Capacity of the Port of Melbourne, 2017, accessed 21 October 2019.

Figure 2.4: Australian and selected overseas ports by annual TEU (in thousands): 2017 and 2018



Source: World Shipping Council, *Top 50 World Container Ports*; various other sources.

In general, the productivity of some Australian container ports appear to be on par when compared to ports of similar size and characteristics, with Melbourne the best performer. When the berth productivity of Melbourne is compared with other ports within the two million to three million TEU range, Melbourne's productivity appears to be about on par if not better than some comparable ports. Melbourne's berth productivity is higher than Durban, Genoa, and Oakland, while it appears about on-par with that of Nagoya and Houston. However, Sydney's berth productivity is lower than its peers within the TEU range, and indeed appears to trail the berth productivity of much smaller ports.

Brisbane's berth productivity is lower than similarly sized ports such as Buenos Aires, Seattle, and Auckland but better than Montreal and St. Petersburg. Fremantle is almost as productive as Brisbane, but is less productive than ports half its size such as Halifax and Lyttleton.

There would be numerous factors influencing the berth productivity outcomes of container ports of similar characteristics, some of which may be local factors outside their immediate control. However, generally berth productivity would be influenced by the following operational factors:[35]

- Crane density—quantifiable as length of quay line divided by quantity on cranes which operate on it. A terminal with a higher crane density can potentially deploy more cranes to service ships and therefore record higher berth productivity.
- Yard density—once a terminal has more than 70 per cent of all available yard slots filled, it starts to run short on stacking options, and may have to resort to storing containers farther away from the quay cranes. This can increase equipment (such as straddles) travel distances and therefore slow the feed to the quay cranes.
- Yard equipment ratio to quantity of quayside cranes—for example, a terminal with an average of three rubber-tyred gantries per quayside cranes is more likely to be able to achieve a better gross crane productivity result than a terminal a (sub-optimal) ratio of 2.5 rubber-tyred gantries per quay crane.
- Cost of labour—in low labour cost ports, there may be a surplus of labour hired. This may afford the port with enhanced flexibility to optimally shift resources from ship to ship or even equipment to equipment. In higher labour cost ports, more efforts will be taken to minimise labour costs, which can be at the expense of productivity.

35 Advice from IHS Markit.

2.7 Infrastructure developments at the monitored container ports

Port of Melbourne's plans for improved rail handling facilities

In October 2018, the Port of Melbourne announced its proposal as part of the Port Rail Shuttle Network initiative to improve rail connections to the port.[36] The proposal seeks to deliver:

- new rail handling infrastructure to provide appropriate capacity and operational flexibility
- integrated on-dock rail handling facilities at Swanson Dock to improve cost competitiveness of rail relative to road, and
- restructured commercial and operating arrangements (covering access rules and service levels) to incentivise efficient use rail of infrastructure.

The project would involve the port taking back a portion of land currently leased to Patrick and DP World at their Swanson Dock terminals and repurposing these for the integrated on-dock rail handling at these sites. The Port of Melbourne proposes to build the rail terminals at its own cost and to sub-lease these assets to Patrick and DP World at no cost. The port's intention is also for the rail terminals to operate on an open-access basis.[37]

The proposal is expected to lift overall container handling capacity at the port. The proposal would also likely benefit regional cargo owners (who are more likely to rely on rail) by making this mode of transport more cost competitive and flexible. If increased take-up of rail is achieved, the project may also reduce road congestion to and from the port, indirectly benefitting metropolitan cargo owners. The reported cost of the project is $300 million, which would be funded by a proposed $15 per TEU (excluding GST) increase to wharfage on all full imports.[38] The Victorian Government will need to approve the project for it to proceed.

Webb Dock-based stevedore VICT is supportive in principle of commitments to develop on-dock rail terminals at the port.[39] However, VICT criticised the current plan, saying that it would give an unfair advantage to its competitors at Swanson Dock and that any rail solution should provide port operators with access on a competitively neutral basis. VICT also said that the wharfage adjustment should not be applied to VICT's customers in the interim given that they cannot access the rail terminals.[40]

VICT called for the Victorian Government to delay its decision on the $15 levy. It also asked for the Port of Melbourne to rethink the purpose of the levy so that it enables Webb Dock to connect with the metropolitan rail network as well as connecting the Port of Melbourne's older terminals to regional rail.[41] VICT said that as it stands, VICT's customers would be forced to fund rail improvements with no benefits to them. Furthermore, VICT's analysis suggests that under the currently proposed solution, regional containers coming in by rail at Swanson Dock and subsequently being transferred to VICT would lead to significant extra costs for these containers.

The Port of Melbourne said that a second phase of the project would involve developing plans for a freight link from the main port precinct to Webb Dock. The port also said that planning is underway for the second phase.[42]

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36 Port of Melbourne, Port of Melbourne to deliver a real rail solution, 2018, accessed 4 November 2019.

37 J Wilson, Government Minister wants to shift cargo from trucks to rail, *Freightwaves*, 2019, accessed 10 October 2019.

38 Herald Sun, Port of Melbourne push for import levy to fund rail project, 2019, accessed 21 October 2019.

39 Victoria International Container Terminal, VICT Supports the Plan for Webb Dock Rail, 2019.

40 K Rooney, Stoush over port rail upgrade, *Herald Sun*, 2019.

41 Victoria International Container Terminal, Port of Melbourne $300m rail plan a free ride for competitors says VICT, accessed 21 October 2019.

42 J Wilson, Government Minister wants to shift cargo from trucks to rail, *Freightwaves*, 2019, accessed 10 October 2019.

Port Botany on-dock rail capacity investment

In November 2019, NSW Ports also announced plans to significantly improve rail infrastructure capacity at Port Botany. The investment would involve the enhancement of on-dock rail infrastructure capacity at each of the three container terminals, with the goal of increasing annual port rail capacity to three million TEU. The investment would be staged, with the first phase of investment consisting of $120 million and expected to take four years commencing in 2019. Patrick would make a complementary investment of $70 million. This phase would see port side rail capacity doubling from 0.75 million to 1.5 million TEU. DP World also welcomed the commitment by NSW Ports, and said that it is working with NSW Ports for similar solutions to grow rail capacity at its terminal.[43]

NSW Ports implemented a $3.08 increase in wharfage on full import and export containers from 1 July 2019 to fund the investment. NSW Ports has said that the charge will be removed once the investment has been recovered.[44]

WA Government progresses Westport, while Fremantle Ports tendered for rights to operate container and intermodal terminals

In light of growing containerised freight demands and road and rail network constraints at the Port of Fremantle, the Western Australian Government has commissioned the multi-agency Westport Taskforce to investigate potential options to optimise the state's freight handling infrastructure to best support long-term growth.[45] The taskforce identified a suite of possible options, with some options proposing that container trade be retained at Fremantle, or transitioned to Kwinana or Bunbury completely over time. The taskforce is also exploring shared port scenarios where container trade is handled at multiple ports (e.g. both Fremantle and Kwinana to handle container trade long-term).[46]

The outcomes of the Westport project are expected towards the end of 2019.[47] However, the construction of any new container facilities arising from the taskforce recommendations is likely to take at least seven years to complete.

Against this backdrop, in May 2018 the Fremantle Port Authority announced it was seeking expressions of interest to operate the two international container terminals at North Quay, which have been operated by Patrick and DP World since 1996.[48] The leases were due to expire in mid-2019 and the intention of the Western Australian government was to re-lease them for seven years to support the Westport process, with options to extend for two further seven year periods. Patrick and DP World have been identified as the preferred proponents.[49] The port and the stevedores have advised that negotiations with on lease terms are continuing.

During the year, the port also conducted a market process for the exclusive right to operate and manage the North Quay Rail Terminal.[50] The intermodal terminal is directly adjacent to both of Patrick and DP World's container terminals. Fremantle Ports has said that Intermodal Link Services[51] is the preferred proponent, however negotiations are continuing.[52]

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43 D Sexton, Industry welcomes Botany rail investment, *Daily Cargo News*, 2019, accessed 21 October 2019.

44 NSW Ports, Rail capacity investment, 2018, accessed 10 October 2019.

45 Department of Transport (Western Australia), Westport, accessed 10 October 2019.

46 Westport Beacon, Westport's long-list of options, 2019, accessed 10 October 2019.

47 Department of Transport (Western Australia), Westport, accessed 10 October 2019.

48 Australian Tenders, Expression of Interest—North Quay Container Terminals, accessed 10 October 2019.

49 P Milne, No new operators for Fremantle's container terminals, *The West Australian*, 2019, accessed 10 October 2019.

50 Australian Tenders, Agreement to exclusively operate and manage the North Quay Rail Terminal, accessed 10 October 2019.

51 Intermodal Link Services is part of the Intermodal Group, which is co-owned by Watco Australia and Qube Logistics.

52 Western Australian Port Operations Taskforce, August 2019 meeting minutes, accessed 10 October 2019.

Flinders Ports dredged Adelaide shipping channel

The South Australian Government in 2018 granted Flinders Ports development approval to widen the Port Adelaide Outer Harbour shipping channel. The development will allow larger container ships to safely and efficiently navigate port facilities.[53]

In June 2019, Flinders Ports commenced the dredging program to allow the larger vessels expected to commence calling Adelaide in 2019. The channel will be widened from a width of 130 metres to 170 metres which will accommodate vessels with a beam of 48 metres. The swing basin width will also be increased from 505 metres to 565 metres.

In total, approximately 1.55 million cubic metres of material will be removed from the channel and swing basin which will allow New Panamax vessels to call into Outer Harbor.

On January 1st 2019 Flinders Ports introduced a Channel Levy of $26.90/TEU (exc. GST) to recover the cost of the dredging program.[54] The cost of dredging is expected to be $80 million.[55]

The South Australian Environmental Protection Agency reported that dredging was completed on 18 September 2019, ahead of Flinders Ports' expected schedule. Flinders Ports is now undertaking bed levelling works prior to completing a final survey.[56]

Tasmanian government still committed to an international container terminal at Burnie

TasPorts, the state port authority for Tasmania, remains committed to developing an international container terminal at the Port of Burnie. Under the $200 million master plan for Tasmanian ports released last year, $80 million has been earmarked for the development at the Port of Burnie.[57]

Although an MOU with DP World to develop the terminal has expired, it is reported that Tasports remains in contact with DP World and is continuing discussions with interested parties.[58]

Burnie formerly had an international container terminal that was monitored by the ACCC until 2011. As Burnie is covered by the ACCC's monitoring direction, any future container terminal would once again be subject to monitoring by the ACCC.

2.8 ACCC competition and consumer enforcement activity

Court action against NSW Ports

The ACCC commenced court action in relation to contracts that may prevent the development of a new container terminal at the Port of Newcastle.

In December 2018, the ACCC instituted proceedings in the Federal Court against NSW Ports for making agreements with the State of New South Wales that the ACCC alleges had an anti-competitive purpose and effect. NSW Ports is the private operator of Port Botany and Port Kembla.

The NSW Government privatised Port Botany and Port Kembla in May 2013 and the agreements, known as Port Commitment Deeds, were entered into for a term of 50 years as part of the privatisation process.

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53 South Australian Department of Planning, Transport and Infrastructure, Channel Widening Project Approved, accessed 10 October 2019.

54 Flinders Ports, Port Charges as of 1st July 2019, accessed 10 October 2019. Channel levy for 40' = $53.80.

55 South Australian Environmental Protection Agency, Industry updates—Flinders Ports (Outer Harbour channel dredging), 2019, accessed 10 October 2019.

56 Flinders Ports, About the project—Outer Harbour Channel Widening Project, 2018, accessed 10 October 2019.

57 TasPorts, TasPorts Port Master Plan, 2019, accessed 10 October 2019.

58 K Towers, TasPorts stays committed to a global terminal, *The Australian—Business Review*, 2019, accessed 10 October 2019.

The Botany and Kembla Port Commitment Deeds oblige the State of NSW to compensate the operators of Port Botany and Port Kembla if container traffic at the Port of Newcastle is above a cap of 30 000 TEUs per annum (adjusted by an annual growth rate).

The ACCC alleges that entering into each of the Botany and Kembla Port Commitment Deeds was likely to prevent or hinder the development of a container terminal at the Port of Newcastle, and had the purpose, or was likely to have the effect of, substantially lessening competition.

Another 50-year deed, signed in May 2014 when the Port of Newcastle was privatised, requires the Port of Newcastle to reimburse the State of NSW for any compensation paid to operators of Port Botany and Port Kembla under the Botany and Kembla Port Commitment Deeds.

The ACCC alleges that the reimbursement provision in the Port of Newcastle Deed is an anti-competitive consequence of the Botany and Kembla Port Commitment Deeds, and that it makes the development of a container terminal at Newcastle uneconomic. A container port at Newcastle could compete with Port Botany.

The ACCC is seeking declarations that the compensation provisions in the 2013 Port Commitment Deeds contravene the CCA, injunctions restraining the operators of Port Botany and Port Kembla from seeking compensation under these provisions, pecuniary penalties and costs.

In July 2019, NSW Ports commenced proceedings against the operator of the Port of Newcastle and the State of NSW, alleging that the Port of Newcastle Deed is anti-competitive. As a consequence, the operator of the Port of Newcastle and the State of NSW have become respondents to the ACCC's proceedings. The ACCC is not seeking orders against the operator of the Port of Newcastle or the State.

The trial is scheduled to commence in October 2020.

Unfair terms in stevedores' contracts

The ACCC took action during the period in relation to potentially unfair terms in the contracts that a number of the stevedores use for their interaction with landside transport companies.

In April 2019, the ACCC announced that DP World, Hutchison and VICT had agreed to remove or amend terms in their standard form contracts that the ACCC considered were likely to be considered 'unfair' within the meaning of the Australian Consumer Law.

DP World and Hutchison had contract terms that allowed a stevedore to unilaterally vary terms in the agreements without notice, including fees paid by the land transport operators.

DP World and Hutchison also had terms that limited their liability for loss or damage suffered by the transport businesses, while not offering the transport businesses the same protections. VICT's contract had a term requiring transport businesses to indemnify VICT for loss or damage, with no reciprocal obligation on VICT.

DP World's standard agreement also required the transport businesses to pay the stevedore's legal costs and expenses in circumstances where such payments would normally be determined by court order.

The three stevedores cooperated with the ACCC's investigation and agreed to remove or amend the terms. Hutchison, which made its commitments in a court enforceable undertaking under section 87B of the CCA, also placed a corrective notice on its website and put in place a compliance program.[59]

Those contract terms which previously allowed the stevedore to amend the contract without notice have either been removed, or now require the stevedore to give 30 days' notice of any changes (including for any price rises).

59 Hutchison Ports' s.87B undertaking to the ACCC is available on our public register: https://www.accc.gov.au/public-registers/undertakings-registers/hutchison-ports-australia-pty-limited.

03

Developments in the broader container freight supply chain

Key issues explored:

- significant developments in container shipping such as larger ships, mergers between shipping lines, and their enhanced bargaining power
- our ongoing work on a possible class exemption for liner shipping
- our advocacy for appropriate regulatory arrangements to be applied at key container freight handling facilities, and
- update on biosecurity levy.

3. Developments in the broader container freight supply chain

This chapter presents observations on significant developments occurring in the broader container freight supply chain. While the government's direction to the ACCC is to monitor the container stevedores, we consider that a fuller assessment of outcomes in container stevedoring should take account of any upstream or downstream sectoral developments which impact or are impacted by container stevedores.

Where relevant, this chapter also discusses enforcement and other advocacy activities undertaken by the ACCC in the broader supply chain.

3.1 Developments in container shipping

Container shipping is a crucial link in the broader container freight supply chain. In addition to being the primary customers of container stevedores, shipping lines have commercial relationships with importers and exporters. As a result, developments in container shipping have a significant and direct bearing not just on outcomes in container stevedoring, but also on outcomes for Australian cargo owners.

Background on the shipping industry

Container shipping is the primary mode of transporting Australia's general cargo imports. While a large proportion of Australia's exports also travel by container ship, key export products such as coal and grains are mostly shipped in bulk ships.

An overwhelming majority of container shipping services in Australia are of the 'liner' category. Liner services have defined ports of call, frequencies, and schedules.[60] Cargo owners, as end-users of the service, either transact directly with shipping lines or use freight forwarders and other logistics companies as intermediaries.

Cargo owners transporting cargo on an ad-hoc basis typically obtain space on shipping services through the spot market. Larger customers may be able to enter into long-term contracts with shipping lines to access lower prices in return for a commitment to provide a minimum amount of cargo for a negotiated period of time. In contrast to the spot market, the ACCC understands that freight rates and surcharges may be set for the period of the contract.

From a geographic perspective, it is possible to differentiate shipping services plying different trade regions. From an Australia/New Zealand (ANZ) perspective, the largest trading regions are those to and from Asia, Europe and North America (in descending order).

Financial challenges for the shipping industry

The container shipping industry has been experiencing financial challenges over a number of years. The industry's troubles began around 2008 when the global financial crisis depressed container shipping demand and prices. To remain viable during the crisis, some larger shipping lines ordered larger vessels and deployed more capacity to potentially obtain increased economies of scale and lower costs.[61]

Some Asian governments also subsidised commercial shipbuilding industries in part to provide a source of employment for a growing workforce and to alleviate an oversupply in the steel market.[62] The subsidies, coupled with low cost of credit, enabled the smaller shipping lines to also procure larger ships. Some have opined that the combination of these trends resulted in a substantial overcapacity in the global shipping market which prevails to this day.[63]

60 In contrast, non-liner services or 'tramp' services do not offer fixed schedules and fixed geographic scopes.

61 Maritime Executive, Mega ship herd mentality, 2015, accessed 20 October 2019.

62 C Paris, Asia State players wield subsidies to dominate shipping, *Wall Street Journal*, 2018, accessed 15 October 2019.

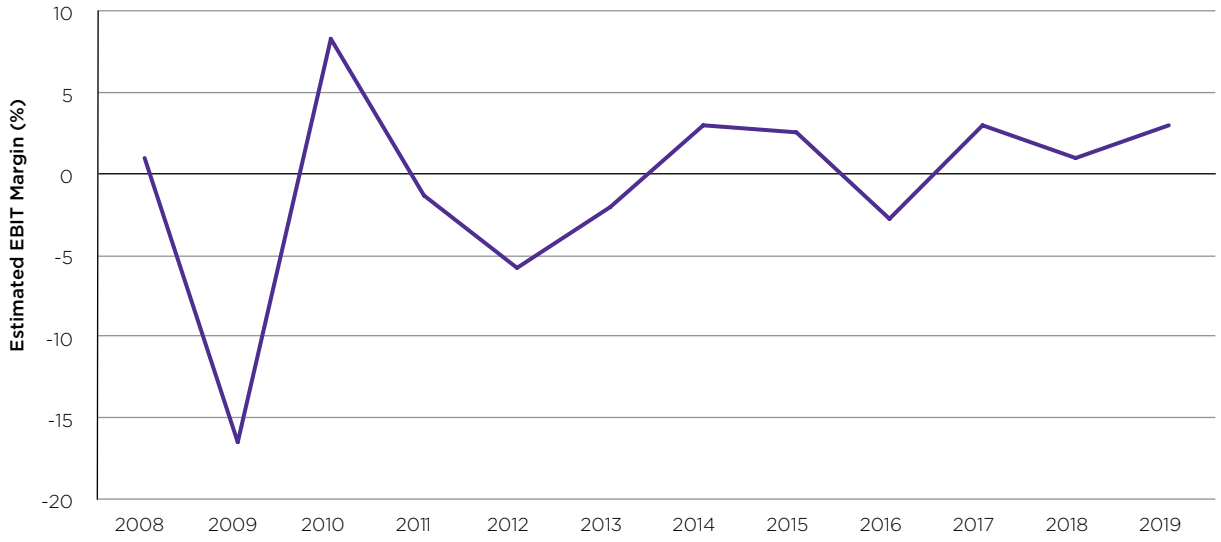
63 K Kosmala, Goodbye big ships. Hello Profitability, *Splash247*, 2019, accessed 20 October 2019.

The effect of the overcapacity may be observed in the movement of container shipping prices over time. Industry observers commonly cite movements in the Shanghai Container Freight Index, which covers spot freight rates and all surcharges except terminal handling charges, as evidence of this overcapacity. Indeed, the SCFI shows that the average cost of importing a container from Shanghai to Melbourne has fallen by around 50 per cent from 2009 to 2018.[64]

A more robust assessment of price movements would take into account both spot and long-term contracted freight rates and all surcharges, and possibly look at price movements at a regional scope rather than port-to-port. However, even when all relevant variables are taken into account, the ACCC understands that 2019 container shipping prices on various trades to and from ANZ represent a reduction of around 20 to 40 per cent from 2008 levels on both imports and exports.

Compounding the effect of lower container shipping prices, the industry also reported rising input costs such as bunker fuel and charter rates.[65] The net effect, which is illustrated in figure 3.1, is that the industry has reported low average operating profits since 2008.

Figure 3.1: Estimated industry operating margins, 2008 to 2019



Source: Publicly available data from Alphaliner and Drewry Maritime.

Note: Data is limited by the fact that not all shipping lines disclose financial results. Some lines report financial profitability at a group level and may include results from other business divisions.

To remain viable in the current environment, shipping lines have adopted a number of strategies. Chief among these has been the deployment of larger, but fewer, ships to service more cargo and various horizontal consolidation strategies.

Strategies employed by shipping lines

Larger, but fewer, ships deployed to carry more cargo

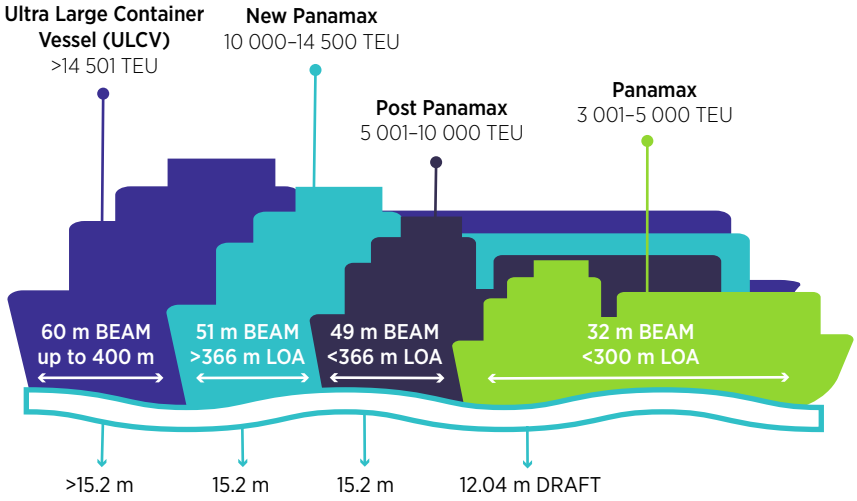
In response to the challenging operating environment, the container shipping industry has increasingly deployed larger vessels to potentially realise better operating economies of scale. Given that container shipping is a high fixed cost business, deploying larger vessels that can carry more containers on any given voyage can reduce operating costs per TEU and potentially improve companies' commercial viability in an environment of lower freight rates and revenues.

Figure 3.2 illustrates the specifications of varying container ship sizes. To accommodate increased capacity, ships are made longer (measured in 'LOA') and made wider (measured in 'beam'). The water draft required to safely navigate larger ships is also increased.

64 Shanghai Shipping Exchange, Shanghai Containerised Freight Index, accessed 16 October 2019.

65 G Knowler, Higher fuel, charter costs pull down container line earnings, *Journal of Commerce*, 2018, accessed 16 October 2019.

Figure 3.2: Container ship size specifications



Larger ships are increasingly being deployed on ANZ routes, as they get replaced by even larger vessels on the major Asia—North Europe and Asia—North America routes. The ACCC's analysis suggests that this cascading of vessels has led to the capacity of the average container ship calling at Australian ports increasing from around 3300 TEU in 2006 to around 4500 TEU in 2019 (a 36 per cent increase). Over the same period, the largest ship sizes deployed in Australia increased from around 4100 TEU to around 9000 TEU. Stakeholders consider that the trend of increasing ship sizes will continue.[66]

Deploying higher capacity ships has resulted in more cargo travelling on less ships. Based on data from BITRE's Waterline report, the number of container ships calling at Australian ports has fallen from around 4310 in 2006 to around 4150 in 2019, a reduction of around four per cent.[67] To accommodate the substantial growth in demand over the same period, the ACCC's analysis suggests that the average TEU exchanged per ship has had to increase from 1100 TEU in 2006 to 1900 TEU by 2019, a 73 per cent increase.[68]

Pressure on ports and stevedores

Both container stevedores and port operators have had to significantly invest in infrastructure to accommodate the larger ships being deployed.

Some ports have dredged their channels to allow for the safe navigation of higher draft ships and to deepen swing basins and berth pockets. For example, the Port of Melbourne spent around $1 billion dredging Port Phillip Bay in 2008 to allow higher draft ships[69], while Flinders Ports is currently dredging the Adelaide shipping channels for the same purpose at the cost of around $80 million.[70] Ports may also have to enhance rail handling capability to increase yard capacities and avoid resulting yard congestion from higher number of TEUs exchanged per ship. Associated investment costs are recovered initially by ports from container shipping lines, but ultimately these cascade to cargo owners in the form of shipping surcharges.

The monitored stevedores have also had to invest in new equipment to handle larger ships. DP World and Flinders Adelaide recently made significant investments in procuring larger quay cranes and more landside handling equipment, while Patrick made similar significant investments from 2013. Stevedores said that, among other things, their new or substantial increases in infrastructure charges enable commitments to such large scale investments.

66 Z Reynolds, Ship upsizing challenges Australia's ports, *Journal of Commerce,* 2018, accessed 21 October 2019.

67 BITRE, Waterline report 42 and forthcoming report number 65.

68 BITRE, Waterline report 42 and forthcoming report number 65.

69 Herald Sun, Port Phillip Bay dredge to cost $969 million, 2007, accessed 12 October 2019.

70 South Australian Environmental Protection Agency, Industry updates—Flinders Ports (Outer Harbour channel dredging), accessed 10 October 2019.

In addition, larger ships impose operational constraints on stevedores. Stevedores acknowledge that due to a finite quayline length and berth space, larger ships reduce their capacity to handle multiple ships simultaneously. Larger ships also create irregularities in service demand, likely increasing the need for stevedores to implement more flexible labour arrangements (or automate their operations) if they are to avoid incurring inefficient costs from longer idle periods.

Consolidation within the shipping industry

Shipping lines have merged or acquired competitors in an effort to further improve scale economies, improve ship utilisation, and remain viable in a low revenue and low profit environment.

The following transactions are particularly relevant to Australia and New Zealand:

- CMA-CGM acquisition of Neptune Orient/American President Line in 2016–17 and Sofrana Line in 2017–18
- A.P. Moller-Maersk acquisition of Hamburg Sud in 2016–17
- merger of container shipping divisions of NYK Line, M.O.L., and K-Line in 2016–17 to form Ocean Network Express, and
- COSCO acquisition of Ocean Orient Container Lines (OOCL) in 2017–18.

The container shipping market significantly increased in concentration in the years following the above transactions, with the majority of ANZ container volumes now handled by less than a handful of shipping lines.

Furthermore, the ACCC's analysis of publicly available data on container shipping services suggests that the ownership of capacity[71] deployed on ANZ markets has also increased in concentration. As of mid-2019, the capacity share of ANZ—Asia services by the top three shipping lines was around 60 per cent, while capacity deployment in ANZ—North America and ANZ—Europe remains highly concentrated to very few shipping lines.[72]

Coordinated behaviour can further reduce competition between shipping lines beyond the level of concentration within the industry. Part X of the CCA provides shipping lines with protection from competition law should they coordinate and agree on various aspects of service provision and have advised DITCRD of that coordination by registering an agreement. The ACCC understands that operational agreements such as vessel sharing agreements are more common than agreements relating to price.

There are also reasons why one group of shipping lines under a vessel sharing agreement may not fully compete with another vessel sharing agreement. We understand that in registering or making subsequent changes to a vessel sharing agreement, participants are required to unanimously agree on non-price terms such as total capacity, ports of call, transit times and frequency of service. This means that a shipping line may be able to block changes in a vessel sharing agreement that it participates in that would see the agreement competing more directly with any other vessel sharing agreement in which it participates.[73]

71 This refers to capacity shares of vessel deployment before slot chartering.

72 Capacity share calculations refer to direct services only.

73 The creation of new horizontal links between previously unconnected vessel sharing agreements has been the subject of concern in numerous merger control decisions in container shipping in the past. For example, the European Commission and Korean Fair Trade Commission required Hamburg Sud to withdraw from certain vessel sharing agreements in order to address potential anti-competitive effects arising from the creation of links between previously independent shipping services from its merger with Maersk Line. See from paragraph (81) of the European Commission public decision for more information: Case M.8330—Maersk Line/HSDG—Decision.

Further changes to ANZ container shipping services

There appear to be further changes underway for ANZ container shipping markets in 2019–20. These changes may impact service levels in various markets and lead to the renegotiation of container stevedoring contracts.

For example, the Mediterranean Shipping Company (MSC) will no longer provide a stand-alone service to Europe (designated as 'Australia Express') and instead combine with CMA-CGM Group in a revised ANZ—Europe vessel sharing agreement.[74] By our calculation, while the lines will increase the capacity of vessels deployed to around 9000 TEU each, there will be an overall reduction of ships deployed resulting in the removal of around 5000 TEU (or around 30 per cent) in weekly capacity on the ANZ—Europe trade. However, we understand that the geographic coverage of the revised service will be enhanced and will offer improved transit times to Mediterranean and African markets.

The ACCC also understands that services on the ANZ—Asia trades are currently being rationalised. From October 2019, Maersk and Ocean Network Express (ONE) will no longer operate one of their joint Asia—ANZ services (which we understand to be 'Boomerang East') and will be joining ANL, ONE, and Hapag-Lloyd in the revised AAX1/Cobra and AAX2/Komodo services.[75] While the lines have advised that the changes will result in a reduction in ANZ—Asia capacity, cargo owners may benefit from increased directness of call to key South East Asian ports and improved transit times from the revised services. We also understand that shipping lines are in the preliminary stages of making changes in a number of other ANZ—Asia services.

Growing bargaining power of shipping lines

Stevedores have traditionally had bargaining power when it came to negotiating terms and conditions with shipping lines. However, stevedores and other industry observers advised that ongoing consolidation in the container shipping market and improved stevedoring competition arising from new entrants in the east coast have combined to significantly elevate the lines' negotiating position relative to container stevedores. Furthermore, stevedores said that they have less scope to resist price pressure by shipping lines given the increasing commercial significance of each contract and the reduction in the number of alternative buyers.

As newly merged shipping lines renegotiate contracts with stevedores, it is often the case for all shipping lines within the group to receive what had previously been the lowest quayside stevedoring rates among them.

The ACCC is also aware that in some cases vessel sharing agreements include clauses that allow agreeing lines to jointly procure[76] stevedoring services.[77] Part X of the CCA exempts such conduct from key provisions of competition law. There may be efficiency reasons in shipping lines jointly deciding which stevedore would service their vessel. However, some have expressed concern that aggregating volumes of all participating lines in an agreement during stevedoring contract negotiations also likely inflates the consortium's power to reduce quayside stevedoring lift rates.

The effect of the downward pressure on quayside prices is evidenced by the 28.4 per cent reduction in quayside revenue per lift reported by stevedores in 2018–19 relative to 2009–10 levels. However, we observed that some lower pricing container terminals have been able to increase average full and/or empty container lift revenue during the year.

74 CMA-CGM, CMA-CGM Group upgrades its NEMO service through new VSA with MSC, accessed 16 October 2019.

75 Hapag-Lloyd, Our new South-East Asia to Australia Services (SEA) and (S2A), accessed 16 October 2019.

76 Amendments to Section 10.24A under Part X of the CCA in 2000 specify that shipping lines in a registered agreement cooperating with one another in making contracts with stevedores are exempt from Sections 45AF, 45AJ, and 45 of the CCA (cartel provisions).

77 However we understand that not all vessel sharing agreements contain a joint procurement or collective bargaining clause. Typically agreements state that parties will jointly decide the container stevedoring service provider at designated ports but each line will individually negotiate prices and other service terms. The ACCC has been advised that joint procurement clauses are not the norm because it may be allowing smaller lines in a vessel sharing agreement to free-ride from the potentially larger volumes of other shipping lines in the agreement.

Stevedores also noted that shipping lines are seeking, and have often been successful in, negotiating reduced length of contract terms. Even with shorter contract terms, some stevedores reported that contracts are nonetheless being broken mid-term.

On the one hand, reductions in stevedoring prices and shorter contract terms potentially could have pro-competitive and beneficial effects for the freight supply chain. Indeed, in discussions with the ACCC over a number of years, shipping lines have said that container stevedoring prices in Australia are among the highest in the world. Some of this likely stems from the strong pricing power and previously high returns on tangible assets enjoyed by the incumbent stevedores, particularly prior to the entry of Hutchison and VICT on the east coast.[78]

Shorter contract terms may also enable shipping lines to be more dynamic in their service offering. For example, shorter contracts with stevedores may enable shipping lines to more easily alter their network of services in response to changes in demand by cargo owners or otherwise cope with the vagaries of the business cycle.

However, the exercise of buyer power may also have adverse effects. For example, there would be concerns if the buyer power of shipping lines increased to such a degree that they are able to effectively set or dictate the prices they pay and/or impose unfavourable non-price conditions or other inefficiencies on stevedores. In such a scenario, shipping lines would be regarded as having 'monopsonistic' buyer power and may be able to set stevedoring lift prices and other service conditions lower than efficient levels.

While not illegal under the CCA, the exercise of monopsony power could have the effect to preventing stevedores from earning appropriate returns on past investment.[79] If stevedores are not able to earn an appropriate rate of return, they may not be able to justify committing to further investment for new equipment or capital projects. Over time, this may lead to a deterioration in service levels as stevedores under-invest in their terminals and/or are unable to justify expenditure to replace depreciated assets.

Similarly, the reduction in contract length as well as the mid-term breaking of contracts between shipping lines and stevedores introduces significant volatility in cash flows and increases financing risks to stevedores. Ultimately, such risks also reduce stevedores' ability to commit to substantial investment in their terminals.

The extent to which shipping lines are able to shift risks or impose inefficiencies on stevedores may also be relevant. For example, some stevedores previously expressed concern with shipping lines increasingly looking to directly dehire empty containers at the container terminals instead of nearby empty container parks. While the direct return of empty containers to the terminals is cost efficient for shipping lines, the ACCC has been advised that the reverse is true for stevedores, particularly those with high volumes. Direct dehires at the east coast ports are now around 20 per cent of total empty container dehires.[80]

The long-term efficiency of the whole container freight supply chain is conditional on mutually beneficial contractual negotiations between shipping lines and stevedores. Cargo owners and supply chain participants may benefit if stevedores earn normal returns and if contract terms stabilise such that significant capital investment is not perceived as risky by stevedores. Alternatively, cargo owners may benefit from improved shipping dynamism arising from shorter stevedoring contracts and from lower quayside lift rates provided the shipping lines' terminal handling charges fall correspondingly.

78 Prior to the entry of new stevedores at the east coast, the industry enjoyed as much as 27 per cent in returns on tangible assets.

79 The exercise of monopsony power, of itself, is not per se prohibited by the CCA given that it is possible to obtain monopsony power using efficient means. This is similar to the treatment of monopoly power; the ability of a seller to price above marginal cost may have been obtained by the seller by being the most efficient and/or innovative seller and as such monopoly pricing, of itself, is not prohibited.

80 Western Australian Port Operations Task Force, September 2019 meeting minutes, 2019, accessed 10 October 2019.

However, to the extent that concerns that shipping lines exercise buyer power are founded, stevedores nonetheless recognise that they can rebalance their cost recovery towards customers less able to respond to price increases (through infrastructure charges) to offset the effect of shipping lines' buyer power on their margins. The ACCC expressed concern in the use of infrastructure charges in this way. While it is understandable for businesses to seek appropriate returns for investments, there is potential for infrastructure charges to be set at levels greater than necessary to earn an appropriate rate of return.

The ACCC notes the concerns raised regarding the joint procurement of stevedoring services under Part X. While we recognise that efficiencies may flow from some forms of cooperation by shipping lines, the ACCC has long expressed concerns that Part X confers exemptions to all manner of horizontal cooperation without a rigorous net public benefit test provided that the lines register their agreement with DITCRD. In the ACCC's view, similar to other conduct currently made exempt by Part X, the net benefit arising from shipping lines jointly purchasing stevedore services is at best untested. The ACCC continues to work towards a possible class exemption for liner container shipping, which is likely to exempt a narrower class of conduct than Part X currently does.

Quality of shipping connections to Australia has improved

A country's ability to competitively participate in global ocean-borne trade is dependent on frequent and reliable container shipping services calling at its ports.[81, 82] The recent consolidation within the shipping industry may pose some risk to the frequency and quality of shipping line services to cargo owners into the future.

However, data released by the United Nations Conference on Trade and Development (UNCTAD) suggests that key parameters[83] of shipping services in Australia have instead remained stable, if not marginally improved, compared to levels prior to the 2008 global financial crisis (see figure 3.3). However, connectivity of Australian container ports, as a collective, seems to have improved less than some comparable countries such as New Zealand. It is possible that this is because shipping lines to-date have constraints in deploying larger ships to major Australian container ports; a constraint that major New Zealand ports such as Tauranga do not appear to experience to the same degree.[84]

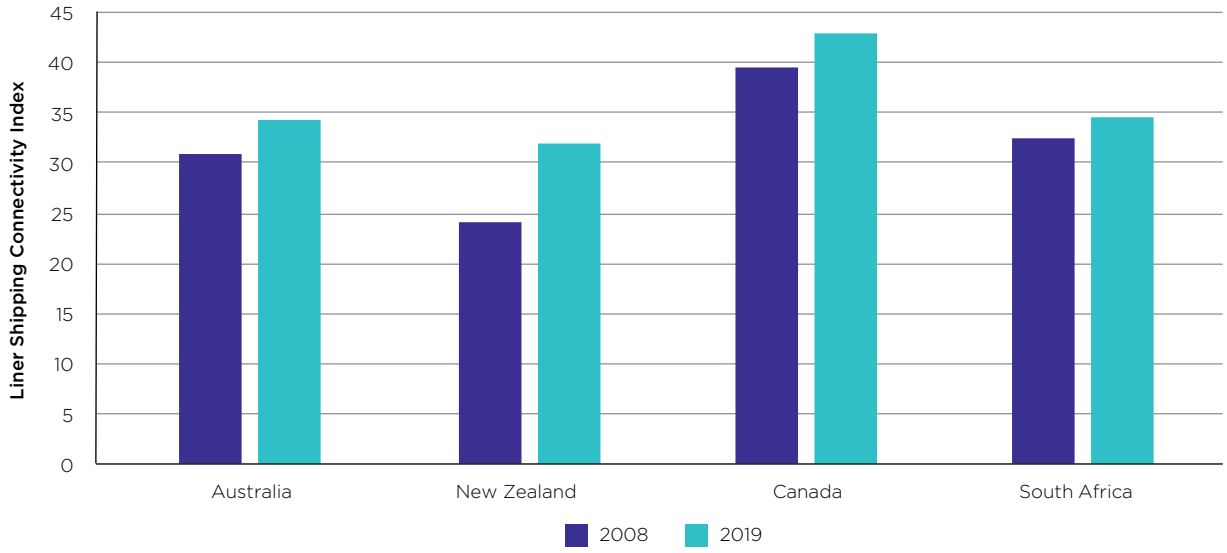
81 M Fugazza and J Hoffman, Liner Shipping connectivity as a determinant of trade, *Journal of Shipping and Trade*, vol. 2 no. 1, 2017, accessed 9 October 2019.

82 Asian Development Bank, The Pacific's connectivity and its trade implications—ADBI working paper no 499, 2014, accessed 9 October 2019.

83 The UNCTAD's Liner Shipping Connectivity Index (LSCI) measures several parameters important to cargo owners such as the frequency of scheduled ship calls per week, deployed annual TEU capacity, the number of competing regular liner shipping services, the number of competing liner shipping companies that provide services, the average size in TEU of the ships deployed, the largest average vessel size, and the number of other ports that are connected to the port through direct liner shipping services (i.e. without needing to use transhipment services). The higher the country's LSCI value, the more connected it is in the global container shipping network. For more information on UNCTAD's LSCI, please see: UNCTAD LSCI data and methodology, accessed 8 October 2019.

84 NZ Herald, Port of Tauranga announces record cargo volumes and increased profit, 2019, accessed 22 October 2019.

Figure 3.3: UNCTAD Liner Shipping Connectivity Index by country, 2008 to 2019



Source: ACCC analysis of UNCTAD data.

The UNCTAD's data suggests that during the period, shipping lines provided improved connectivity between Australia and its key import and export destinations such as China, Northern Europe and North America. Connectivity with crucial maritime hub and spoke ports in Singapore, Malaysia, and Sri Lanka also improved. However, liner shipping connections with between Australia and New Zealand and Australia and small Pacific Island nations deteriorated.[85]

Incoming low-sulphur regulations will substantially impact container shipping

From 1 January 2020, all container shipping lines are required to significantly limit sulphur emissions from business activities to comply with stricter global regulations set by the International Maritime Organisation (IMO).[86]

Under the regulations, all ships (container ships but also bulk, tanker and cruise ships) are required to switch to fuel with a sulphur content no higher than 0.5 per cent. This is much stricter than the current cap of 3.5 per cent. The regulation is due to concerns about the impact of ships' sulphur oxide emissions on the health of communities residing in coastal areas and close to ports. Ships traditionally use 'bunker fuel' which is relatively cheap but emits large amounts of noxious substances such as sulphur oxide.

Major shipping lines around the world accept the need for the stricter regulation, however they believe that compliance will be very costly. ANL suggested in 2018 that it alone will incur an additional $150 million AUD in annual operating costs from compliance with the regulation[87], while Maersk Line estimated compliance will add $3 billion AUD to its annual operating cost.[88]

Shipping lines can achieve compliance by switching to compliant low-sulphur fuels or investing in emissions abatement technology (or 'scrubbers') that capture sulphur emissions in their ships' exhaust. An industry survey suggested that around 84 per cent[89] of Australian shipping lines consider that they will switch to using low sulphur fuels rather than install scrubbers.

While industry expectations on the 2020 cost of compliant fuels vary, the premium of compliant fuels over high sulphur fuels has averaged around $210 USD per tonne since 2004.[90]

85 United Nations Conference on Trade and Development, Port liner shipping connectivity index – Annual, 2019, accessed 10 October 2019.

86 International Maritime Organisation, Sulphur 2020—cutting sulphur oxide emissions, accessed 10 October 2019.

87 ANL, Tasmanian Shippers Forum—Beyond Bass Strait, 2018, accessed 10 October 2019.

88 Maersk Line, Maersk to change fuel adjustment surcharge ahead of the 2020 sulphur cap, 2018, accessed 10 October 2019.

89 Australian Maritime Safety Authority, Australian consultation on low sulphur fuel, accessd 10October 2019.

90 CIMB, Sector Note—Oil prices well supported by IMO 2020, 2018, accessed 10 October 2019.

Impact on supply chains

Some shipping lines have indicated that they may decrease ship speeds in order to reduce average fuel consumption per voyage and mitigate operating cost increases.[91] However, in doing so they may also be required to deploy more ships per service in order to still provide competitive service frequencies and transit times. Some shipping lines have also said that they may further hasten the deployment of larger and more fuel efficient ships as a cost-saving measure, further increasing pressure on ports and stevedoring infrastructure.

Shipping lines are also recovering increased capital and operating expenditure attributable to the regulations. Shipping lines have revised their Bunker Adjustment Factor (BAF), a surcharge levied on cargo owners to recover costs from fluctuations in fuel costs over time. While each shipping line has its own BAF calculation methodology, broadly the lines are taking into account variables such as the low-sulphur fuel price, average fuel consumption per trade, as well as transit times and trade imbalances that characterise individual trade lanes.

Based on the BAF calculation methodologies published by major shipping lines in Australia, our analysis[92] suggests that supply chains using services to and from Asia could face a cost increase of around $160 AUD per TEU.

Possible reforms to Part X and the way shipping lines can coordinate behaviour

As mentioned earlier, Part X exempts ocean carriers that register agreements with DITCRD from key parts of the CCA relating to anti-competitive conduct. The 2015 Harper Competition Policy Review, along with many other reviews before it, found that Part X was outdated, unnecessary and should be repealed. To support the removal of Part X, the review recommended that the ACCC issue a class exemption for liner shipping agreements that meet a minimum standard of pro-competitive features. The ACCC's power to make class exemptions commenced in November 2017.[93]

A lot of other countries have had broad shipping exemptions similar to those permitted by Part X. However, in recent years countries have been increasingly concluding that allowing cartel behaviour by shipping companies comes at a net cost to the local economy. As a result, several countries have scaled back or entirely removed their equivalent liner shipping exemptions.[94]

While the ACCC is opposed to the broad exemptions given to the liner shipping industry through Part X, we understand the argument that some limited forms of co-ordination may be in the public interest by facilitating efficient shipping to and from Australia. We have granted limited exemptions to some airline cooperation on the same logic.

We have begun work on developing a discussion paper about a possible class exemption for liner shipping. We will follow a transparent and consultative process to ensure all stakeholders have an opportunity to participate, and to enable the ACCC to assess the public benefits and detriments (including the effects on competition) of different types of cooperation between shipping lines. This process will also provide more information and assurance for policy makers when they come to decide whether to repeal Part X.

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91 Journal of Commerce, Little headway made on IMO ship speed plan, *Journal of Commerce*, 2019, accessed 10 October 2019.

92 Our estimates are based on a $210 USD per tonne differential between compliant and high-sulphur fuels by 2020. We used CMA-CGM's published BAF calculation methodology in arriving at the projected cost increase per TEU figure. While the BAF cost increase will be the same for imports and exports, the final BAF figure charged on exports is much lower.

93 *Competition and Consumer Act 2010* (Cth), s 95AA.

94 United Nations Conference on Trade and Development, Liner shipping: is there a way for more competition?, 2016.

3.2 The need for appropriate access arrangements at Moorebank Intermodal Terminal

For privatised nationally significant infrastructure, the relevant government should ensure that there are effective regulatory arrangements to facilitate open and non-discriminatory access, and to prevent anti-competitive behaviour by the provider of essential infrastructure services. In this way, competition in upstream and downstream markets that rely on access to the infrastructure is enhanced.[95]

A current example is the Moorebank Intermodal Terminal, which is an intermodal freight precinct that will be operated by Sydney Intermodal Terminal Alliance (SIMTA), a wholly Qube-owned company, under a 99-year lease from Moorebank Intermodal Company (MIC). Moorebank will be a nationally significant infrastructure facility with an essential role in facilitating NSW's trade with the rest of the world. Moorebank will also play an important role in facilitating trade moving interstate, with direct access to major road corridors, the Southern Sydney Freight Line and the interstate rail network.

Given the prominence and likely growth of Moorebank, the ACCC is concerned with the potential misuse of market power by SIMTA (or future operators of the terminal) over the long term.

Qube has significant interests in road transport services, above-rail haulage services, other intermodal terminals in Sydney, empty container parks and Patrick Terminals. In the future, if there are significant capacity constraints at other intermodal facilities in Sydney and an absence of appropriate access regulation, SIMTA could have both the ability and incentive to misuse its market power. This could involve charging higher prices or deprioritising schedules of access seekers not purchasing a bundle of Qube services. This would be to the detriment of current and future access seekers, not promote the efficient use of the infrastructure facility, and negatively affect Australian consumers and producers.

In such circumstances, an appropriate and robust access regime is essential to promote effective competition in upstream and downstream markets. This would promote an environment for upstream and downstream markets where efficient investment and expenditure can be undertaken, ultimately positively affecting the efficiency and productivity of the Australian economy.

Contractual approach to open access for the Moorebank IMEX Terminal is flawed

In a submission to MIC on 12 July 2019[96], the ACCC raised concerns with the draft access protocol to facilitate open and non-discriminatory access at the Moorebank Logistics Park Import-Export (IMEX) Terminal.

The ACCC understands that Qube has been considering amendments to the draft access protocol applying at Moorebank to reflect stakeholder concerns. The ACCC is continuing to engage on the matter with MIC. The ACCC's main concern is that the contractual approach adopted by MIC and SIMTA to facilitate open and non-discriminatory access at the Moorebank IMEX Terminal will not be effective.

95 The ACCC has an important role in relation to significant infrastructure facilities under Part IIIA of the CCA, which sets out the 'National Access Regime'. The National Access Regime is designed to facilitate third party open access to services delivered by facilities of national significance.

96 ACCC, Moorebank Intermodal Company industry consultation - submission to draft Moorebank IMEX Terminal Access Protocol, 2019.

The ACCC considers a contractual approach to open access is limited in its ability to identify and sufficiently address the various means by which a vertically-integrated operator can engage in anti-competitive behaviour over the long term. A contractual approach does not involve an experienced and well-resourced independent party, such as a regulator, that could facilitate open and non-discriminatory access by:

- robustly assessing the regime against clear and objective set of criteria
- actively monitoring and enforcing obligations on behalf of users in the event of a breach, and
- being involved in a transparent and public consultation process to ensure the regime is fit-for-purpose in the long term and incorporates stakeholder views.

The ACCC is of the view that a review mechanism in any proposed open access regime needs to set out that an infrastructure facility operator is required to periodically undertake a transparent and public consultation process involving an independent party.

The consultation process to develop and review an open access regime should involve the infrastructure facility operator demonstrating how it has had regard to stakeholder views in a public response to submissions, subject to reasonable privacy and confidentiality limits.

The ACCC's preferred approach to ensuring effective open access at the Moorebank IMEX Terminal is for the terminal operator to submit a voluntary access undertaking to the ACCC under Part IIIA of the CCA that sets out their proposed terms and conditions of access.[97] The ACCC notes this process is separate from the declaration and arbitration process set out in Part IIIA of the CCA.[98]

Under Part IIIA of the CCA, the ACCC robustly assesses voluntary access undertakings in a public process. The ACCC has a clear criteria for assessment of a voluntary access undertaking, such as the objects of Part IIIA, legitimate business interests of the service provider, public interest, and interests of persons who might want to access the service.[99]

The ACCC is therefore of the view that a voluntary access undertaking will sufficiently take into account the business interests of SIMTA, while also ensuring users of MIT are protected by an independent and transparent regulatory framework.

3.3 Biosecurity Levy

The implementation of a proposed levy on import containers to protect Australia's biosecurity has been delayed.

In May 2018 the Australian Government announced that it would introduce a Biosecurity Imports Levy. According to the Department of Agriculture and Water Resources (DAWR), the levy would contribute to onshore surveillance, diagnostic, data analytics, research and adoption of new technology to help detect, identify and respond to exotic pests and diseases earlier and ensure people and goods can move into Australia safely and more efficiently.[100]

97 *Competition and Consumer Act 2010* (Cth), s 44ZZA(1).

98 *Competition and Consumer Act 2010* (Cth), s 44CA.

99 *Competition and Consumer Act 2010* (Cth), s 44ZZA(3).

100 Department of Agriculture and Water Resources, Biosecurity Imports Levy, 2019, accessed 8 October 2019.

The report of an industry steering committee was released in September 2019.[101] The report's recommendations included the following:

- The levy should be imposed on the importation of containers and break bulk items which represent a biosecurity risk.
- The levy should be applied via the existing Full Import Declaration.
- A new levy should not be applied to the arrival of shipping vessels, given that vessels already pay a biosecurity-related vessel operator charge. Any additional unrecovered biosecurity costs relating to vessels should be met by increasing the existing charge.
- A high-level, expertise-based Biosecurity Advisory Council should be appointed to enhance the shared responsibility principle of biosecurity, provide more scope for private sector interests to contribute to biosecurity decisions, and ensure that levy proceeds are appropriated for additional biosecurity activities.

The 2019–20 Federal Budget revised the commencement date of the levy to 1 September 2019 to allow the established industry steering committee to make recommendations to the responsible minister on the design and implementation of the levy.[102] However, it had not been implemented at the time of publication of this monitoring report in October 2019.

101 R Fisher and A Davey, Report on the Biosecurity Imports Levy, *Pegasus Economics*, 2019, accessed 8 October 2019.

102 Commonwealth of Australia, Budget Measures Budget Paper No. 2 2019-20, 2019, accessed 8 October 2019.

04

Detailed monitoring results: throughput, productivity, and efficiency

4. Throughput, productivity, and efficiency

This chapter presents data on the volume of containers handled by the stevedores at the monitored ports. It also presents various measures assessing how efficiently the stevedores handled the quayside and landside components of the freight handling task.

Throughput measures presented in this chapter have been provided by stevedores Patrick, DP World, Hutchison Ports Australia, Flinders Adelaide, and VICT. Quayside and landside productivity measures have been provided by the Bureau of Infrastructure, Transport, and Regional Economics (BITRE).

Key results 2018–19

Throughput

TEU	Lifts	Full container lifts	Empty container lifts
7.88m TEU + 0.2%	5.11 m – 0.5%	3.77m – 4.9%	1.33m + 14.5%

Quayside productivity

Crane rate	Labour rate	Ship rate
30.7 containers/hour + 5.3%	51.4 containers/hour + 7.5%	64.7 containers/hour + 8.3%

Landside efficiency

Freight on rail	Truck Turnaround Time	TEU per truck
10.3% – 1.1 percentage points	29.3 minutes + 0.4 minutes (worsened)	2.5 TEU + 1.9%

4.1 Throughput

Throughput at the monitored ports—TEU

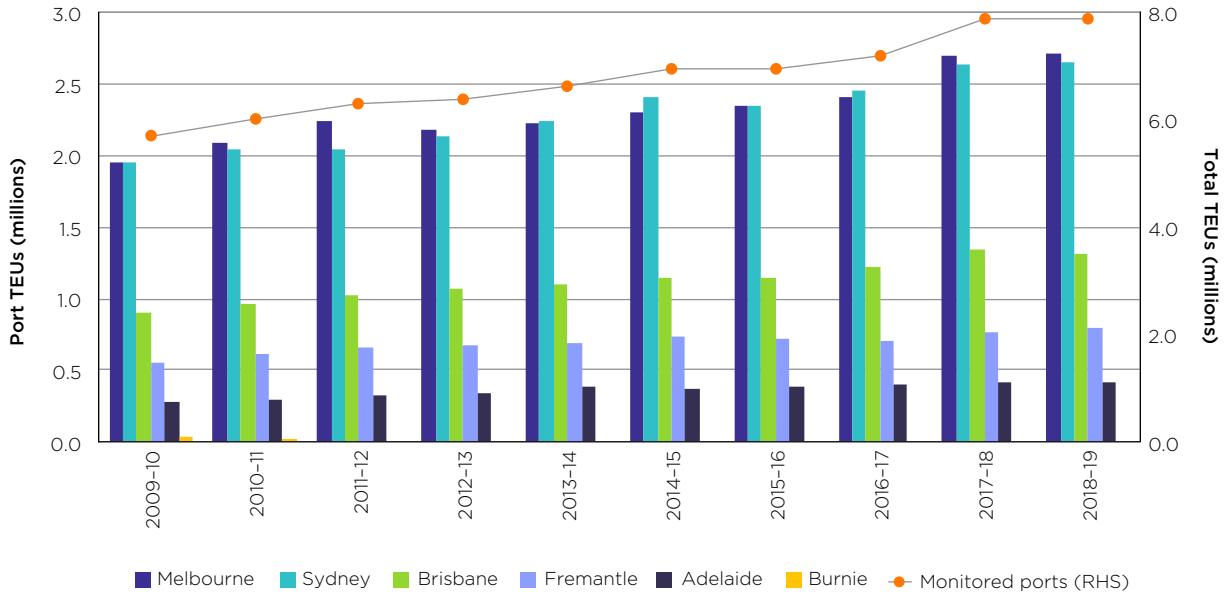
In 2018–19, the stevedores operating at the monitored container ports reported a 0.2 per cent increase in the total number of TEUs handled to 7.88 million.[103, 104] The growth rate during the reporting period was far below that from the previous year (9.4 per cent), and was the second worst observed during the decade.

103 In their submissions to the current report, some stevedores revised container volumes reported for various container ports in the 2017–18 report. As a result, throughput for the 2017–18 financial year was revised to 7.86 million TEU. Lift numbers have not been revised.

104 The ACCC reports the volume of containers handled by stevedores on and off ships at designated international container terminal facilities only. We exclude a small amount of containers handled at general cargo facilities. We note that there may also be small variances between container terminal throughput figures reported by the ACCC and BITRE's Waterline report. This is because Waterline methodology does not count containers handled from non-unitised cellular container vessels (UCC).

While Fremantle reported solid growth of 3.0 per cent in TEUs handled during the year, international container throughput growth was subdued at all other ports and even contracted in some cases. Adelaide reported the next best growth at 1.6 per cent, followed by Sydney with 0.7 per cent and Melbourne with 0.3 per cent. Brisbane TEUs contracted by 2.7 per cent.

Figure 4.1: Container stevedoring throughput trends at monitored ports, 2009–10 to 2018–19



Source: ACCC analysis of stevedores' submitted data to the monitoring regime.

The slowdown in container volume growth in 2018–19 would be due to several factors. National economic activity has slowed with the growth in gross domestic product by June 2019 reminiscent of the slow recovery period that immediately followed the 2008 global financial crisis.[105] Economists pointed to persistently weak conditions in goods distribution industries such as retail and manufacturing during the year.[106] The ABS also reported that retailers have run down their inventory stockpiles[107] and that both housing construction and business investment levels have fallen.[108]

The drought affecting eastern Australia and floods in Queensland also had a detrimental impact on volumes of various export commodities such as grain, hay and cotton. However, the domestic scarcity of some commodities such as grain may have been offset to some degree by importation from overseas. New prohibitions put in place by numerous foreign governments on the importation of waste in containers also had a negative effect on full export volumes.[109]

Figure 4.2 shows that Melbourne continued to be Australia's largest international container stevedoring port after it handled 2.71 million TEU, which represented 34.3 per cent of the total. Sydney handled 2.65 million TEU, Brisbane handled 1.31 million TEU, Fremantle handled 0.79 million TEU, and Adelaide handled 0.42 million TEU.

105 Australian Bureau of Statistics, Australian National Accounts: National Income, Expenditure, and Product—June 2019, accessed 11 October 2019.

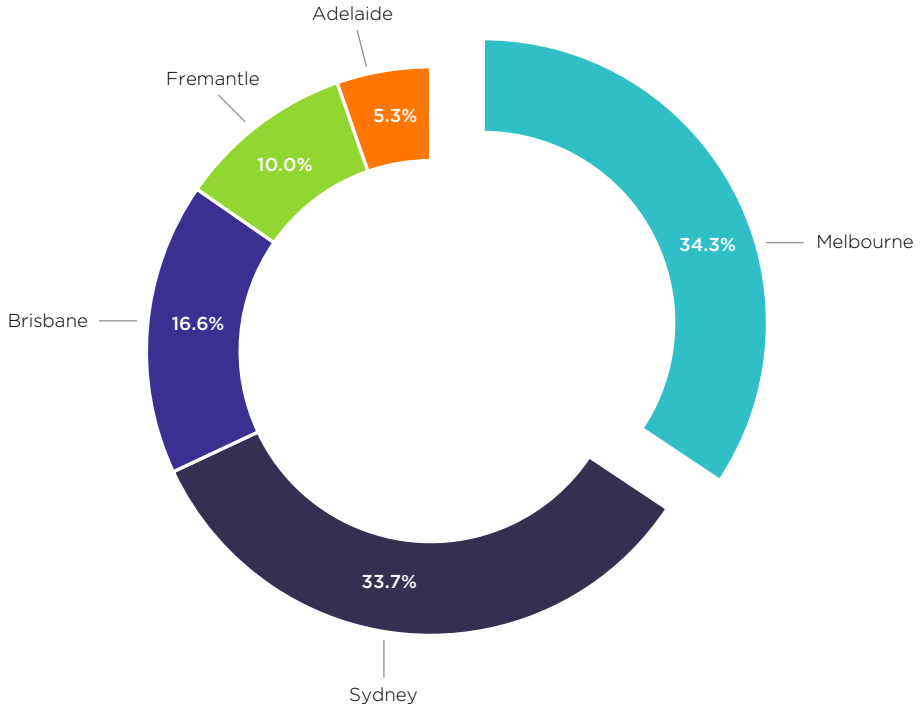
106 National Australia Bank, NAB Monthly Business Survey—May 2019, accessed 10 October 2019.

107 Australian Bureau of Statistics, Quarterly Business Indicators—June 2019, accessed 11 October 2019.

108 Australian Bureau of Statistics, Private New Capital Expenditure and Expected Expenditure—Australia—June 2019, accessed 11 October 2019.

109 The Sydney Morning Herald, Australia faces deepening recycling crisis as India bans plastic waste imports, 2019, accessed 10 October 2019.

Figure 4.2: Share of TEUs handled by monitored port, 2018–19



Source: ACCC analysis of stevedores' submitted data to the monitoring regime.

Throughput at the monitored ports—lifts

TEU is an important measure of throughput for container stevedoring, in particular for understanding capacity constraints at the ports. However, stevedores' financial performance is best understood through the number of containers 'lifted' on and off ships given that much of their revenue is generated on a per-container basis, regardless of whether the container is 20 foot or 40 foot.

Stevedores reported a contraction of 0.5 per cent in container lifts from 5.13 million to 5.11 million in 2018–19. Similarly, this is the second worst growth rate in lifts reported during the decade.

Lifts grew by a solid 3.2 per cent at Fremantle during the year to 0.53 million lifts. However, growth was subdued at all other ports, and even contracted in some cases. Adelaide experienced 0.8 per cent growth to 0.29 million lifts, while lifts at Sydney grew by 0.2 per cent to 1.69 million lifts. Stevedores reported a 0.7 per cent contraction in Melbourne (to 1.75 million lifts) and a 3.8 per cent contraction in Brisbane (to 0.84 million lifts).

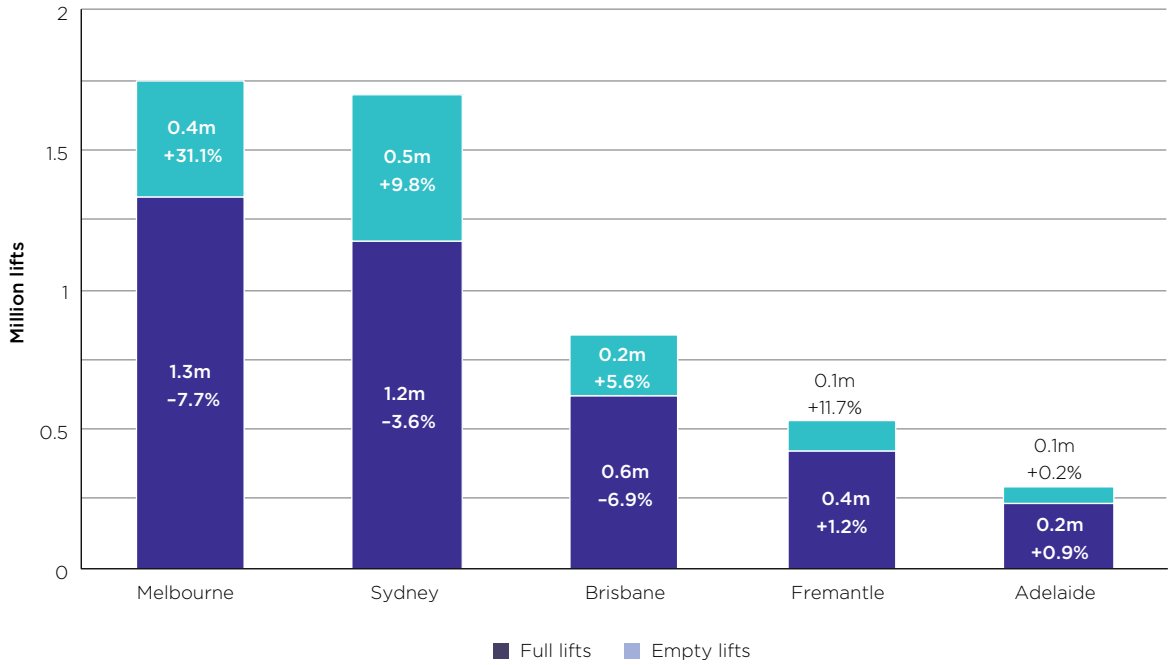
Full and empty container lifts

Container lifts may be further disaggregated to lifts of boxes that are either full or empty. Full containers contain either imported goods from overseas markets or products designated for export markets. In contrast, empty containers are lifted on and off ships as part of their repositioning by shipping lines to places where there is demand for containers. Australia imports far more goods in containers than it exports, which means many empty containers need to be sent back overseas.

Nationally, full container lifts fell by 4.9 per cent to 3.8 million lifts in 2018–19, while empty container lifts rose by 14.5 per cent to 1.3 million. The sharp growth in empty container lifts is likely due to the much lower volumes of various agricultural commodities, particularly from the drought stricken regions in the east coast.

Figure 4.3 illustrates that stevedores reported a sharp increase in empty container lifts in the east coast, particularly in Melbourne where empty container lifts rose by almost 100 000 during the period.

Figure 4.3: Full and empty container lifts at monitored ports, 2017–18 to 2018–19



Source: ACCC analysis of stevedores' submitted data to the monitoring regime.

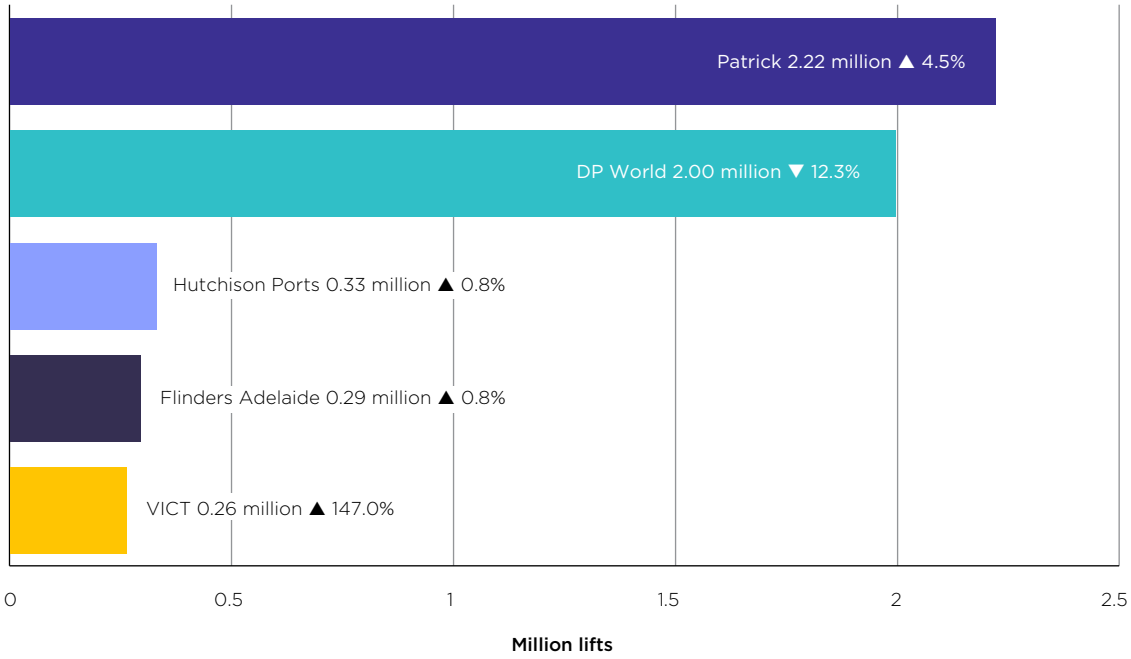
Lifts by stevedore

With the exception of DP World, all four other container stevedores operating at the monitored ports reported increases in container lifts.

As figure 4.4 illustrates, Patrick regained the status of being Australia's largest container stevedore in 2018–19 after it experienced a 4.5 per cent growth in lifts to 2.2 million. On the other hand, Patrick's major competitor DP World experienced a 12.3 per cent fall in container lifts across its four terminals to 2.0 million.

VICT reported a more than doubling of its lifts in 2018–19 on the back off winning several shipping services. Hutchison and Flinders Adelaide both reported a 0.8 per cent increase in their container lifts, with Hutchison securing one new service in Brisbane.

Figure 4.4: Lifts per stevedore, 2018–19



Source: ACCC analysis of stevedores' submitted data to the monitoring regime.

During the year, Patrick held 43.5 per cent of national lifts, while DP World held 39.1 per cent. The incumbent stevedores' collective share of national lifts of 82.6 per cent of national lifts is again lower than their collective share in the previous reporting period. The geographic reach of Patrick and DP World relative to other stevedores will mean that they will likely continue to command a substantial portion of national container lifts in the medium term. However, they are increasingly being challenged by competitors, particularly in Melbourne.

In addition, in 2018–19, Patrick accounted for 46.1 per cent of all lifts in its container stevedoring markets—Brisbane, Fremantle, Melbourne and Sydney—an increase of 2.2 percentage points from the previous year. In contrast, DP World accounted for 41.5 per cent of lifts in the same four container stevedoring markets, a reduction of 5.6 per cent.

Hutchison accounted for 13.1 per cent of total lifts in Brisbane and Sydney in 2018–19, a 0.3 percentage point increase from 2017–18. Meanwhile, VICT accounted for 15.1 per cent of lifts in Melbourne, a 9.0 percentage point rise from the previous reporting period. Flinders Adelaide is the only stevedore in Adelaide and therefore accounts for all containers lifted at that port.

4.2 Productivity and efficiency

Changes in various productivity measures provide important insight on the quality of service provided by container stevedores to users of their services.

Data reported in this section was collected by BITRE for its Waterline statistical program.[110] BITRE has an established methodology in calculating container stevedoring productivity measures and reports on trends in the monitored container ports. BITRE generously provides the ACCC with stevedoring productivity data in advance of BITRE's publication of its Waterline report.

110 For BITRE's latest Waterline report, Waterline 63, see: https://www.bitre.gov.au/publications/2019/files/water_063.pdf.

Quayside productivity

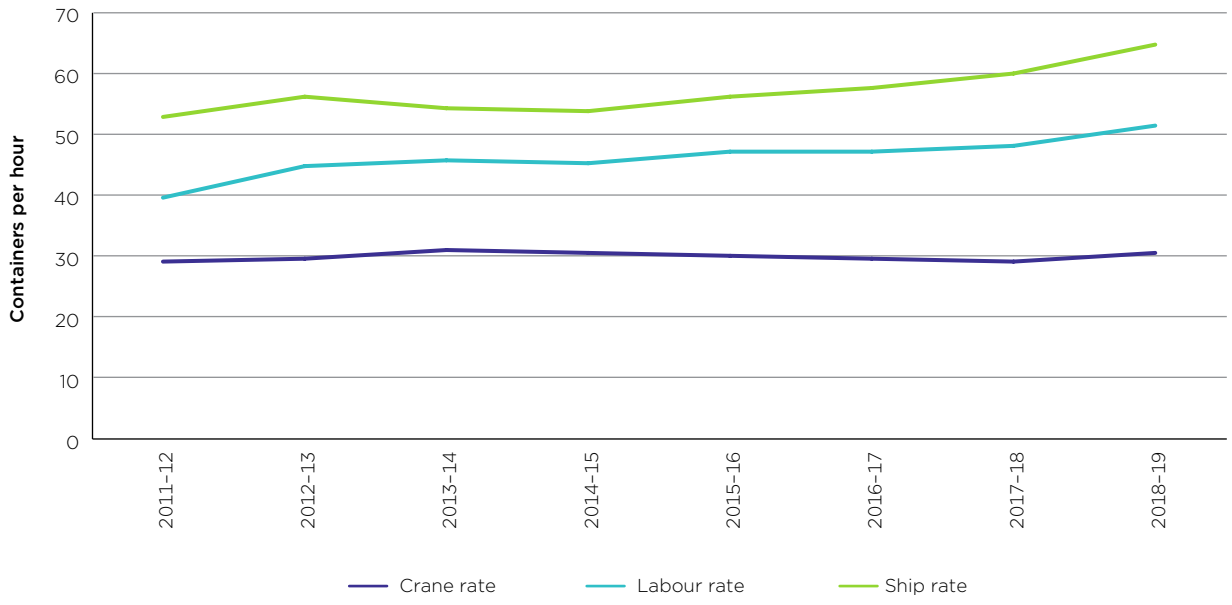
Quayside productivity measures provide insights on the efficiency of lift services provided to stevedores' primary customers, shipping lines.

BITRE's key indicators on quayside productivity are outlined below. The measures show that Australia's quayside productivity improved markedly in 2018–19:

- Net crane rate—this is an indicator of capital productivity and reflects the number of containers lifted on and off ships per hour that ship-to-shore cranes are in operation. In 2018–19, the weighted average net crane rate across the monitored container ports improved by 5.3 per cent to 30.7 containers per hour.
- Elapsed labour rate—this is an indicator of labour productivity and measures the number of containers handled for the period of time between labour first boarded a container ship to when labour left the ship, less any time when labour was not working due to delays. In 2018–19, the weighted average elapsed labour rate across the monitored container ports rose by 7.5 per cent to 51.4 containers per hour.
- Net ship rate—this reflects the overall productivity of terminal operations while the ship is being worked. It measures how fast containers are being lifted on and off a ship by cranes and labour. The net ship rate rose by 8.3 per cent in 2018–19 to 64.7 containers per hour.

Figure 4.5 shows movement in quayside productivity of Australian ports overtime.

Figure 4.5: Quayside productivity indicators, Australia: 2011–12 to 2018–19.



Source: ACCC analysis of data from BITRE's forthcoming *Waterline 65*.

Crane productivity

Crane productivity is measured by net crane rates and reflects capital productivity. BITRE estimates net crane rates by dividing the total number of containers handled by the total allocated crane hours less any operational and non-operational delays.[111]

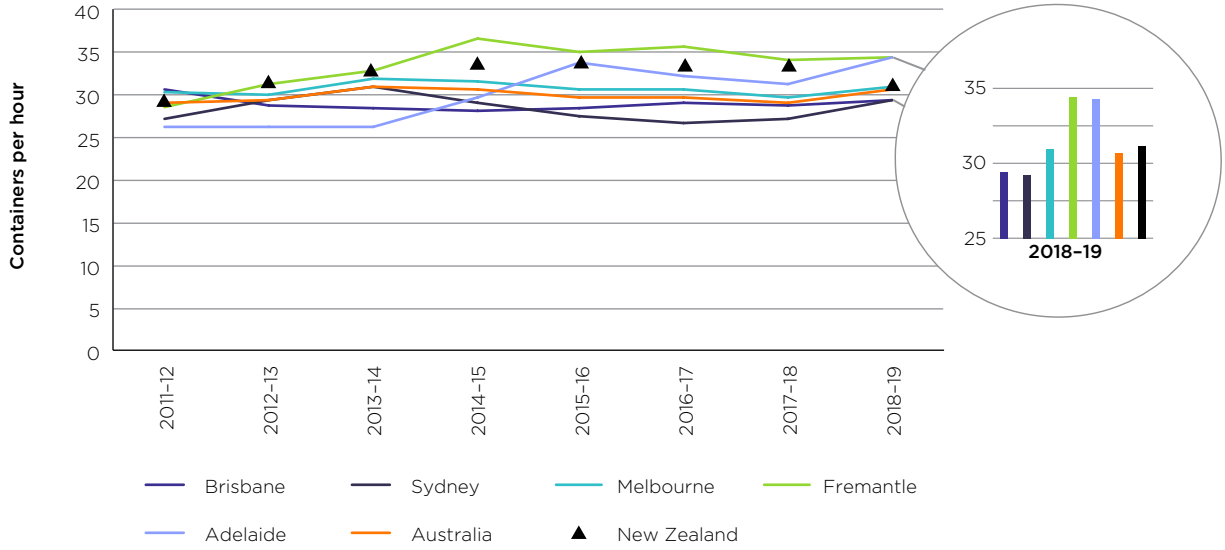
Figure 4.6 shows that net crane rates, as reported by BITRE, improved at all the monitored container ports in 2018–19. In particular, Adelaide posted a strong 9.5 per cent increase in crane productivity, while Sydney had a 7.9 per cent increase. Net cranes at Melbourne increased by 4.8 per cent, while

111 BITRE's Waterline reports describe in greater detail the methodology for calculating net crane rates, and includes a non-exhaustive list of the types of operational and/or non-operational delays that are excluded from the report. For BITRE's latest Waterline report, Waterline 63 (October 2019), see: https://www.bitre.gov.au/publications/2019/files/water_063.pdf.

Brisbane rates increased by 2.8 per cent and Fremantle rates increased by 0.8 per cent. Despite recording marginal improvements in crane productivity during the year, Fremantle crane rates remained the best of all the monitored container ports in 2018–19. Over the past eight years, crane productivity at Adelaide improved the most, growing by 30.1 per cent in the period.

The weighted average net crane for Australian container ports increased by 5.3 per cent in 2018–19, while a weighted average of New Zealand port crane rates[112] fell by 6.3 per cent. The Port of Auckland said that the dip in New Zealand productivity rates is due to temporary automation projects weighing on capacity and efficiency at some ports.[113]

Figure 4.6: Net crane rates, 2011–12 to 2018–19



Source: ACCC analysis of data from BITRE's forthcoming *Waterline 65*. New Zealand port productivity data sourced from the New Zealand Freight Information Gathering System.

Crane productivity is an important service metric, particularly for shipping due to the inverse relationship between crane rates and the time that ships spend at berth. The ACCC is aware that crane rates are key metrics considered by shipping consortiums in considering which stevedoring terminal to use at particular ports. For stevedores, maximising crane rates may also facilitate lower unit costs by minimising the number of cranes they need to deploy to fulfil their contracts with shipping lines.[114]

Crane productivity is influenced by numerous factors. Principally, they are influenced by work and safety regulations at the terminal and crane driver skill and training.[115] They would also be dependent on characteristics of the cranes deployed at the terminals, with newer cranes likely to be faster and more efficient than older cranes. Furthermore, some cranes are more efficient than others: ship-to-shore gantry cranes, while more expensive, perform better than general purpose mobile cranes.[116]

Labour productivity

Labour productivity is measured by elapsed labour rates. For a given worker, BITRE estimates labour productivity by dividing the total number of containers they handled by the total time between when the worker boarded the ship and the time they left the ship, less any operational and non-operational delays.

112 The New Zealand Ministry of Transport reports on various container stevedoring productivity measures for New Zealand container ports. The New Zealand Ministry of Transport and BITRE employ similar methodologies.

113 Ports of Auckland, Ports of Auckland Annual Result to June 30 2019, 2019.

114 N Kemme, Design and Operation of Automated Container Storage Systems, 2013.

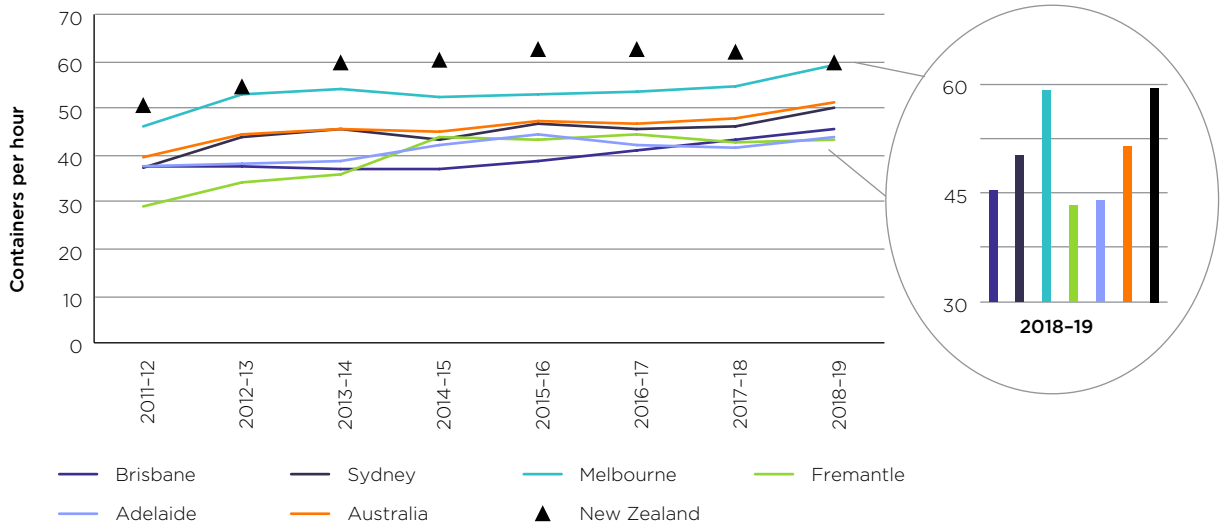
115 National Research Council, Improving Productivity in U.S. Marine Container Terminals, 1986, accessed 7 October 2019.

116 New Zealand Ministry of Transport, Container Productivity at New Zealand Ports, 2011.

Figure 4.7 shows that elapsed labour rates, as reported by BITRE, also improved at all the monitored container ports in 2018–19 and are now at record highs for most container ports. Melbourne posted an 8.9 per cent labour productivity increase, closely followed by Sydney with an 8.8 per cent increase. Adelaide recorded 5.4 per cent growth, Brisbane had 5.1 per cent, and Fremantle recorded 0.8 per cent growth.

Melbourne continues to lead the rest of the container ports in labour productivity by a large margin. Over the past eight years, labour productivity at Fremantle improved the most, growing by 49.4 per cent in the period.

Figure 4.7: Elapsed labour rates, 2011–12 to 2018–19



Source: ACCC analysis of data from BITRE's forthcoming *Waterline 65.* New Zealand port productivity data sourced from the New Zealand Freight Information Gathering System.

The weighted average elapsed labour rate for Australian container ports increased by 7.5 per cent in 2018–19, while a weighted average of New Zealand elapsed labour rates[117] fell by 3.6 per cent.

The Productivity Commission has previously found that numerous factors may impact labour productivity outcomes on Australian container terminals.[118] Among a suite of other workplace arrangements, the Productivity Commission found that occupational health and safety standards, workplace culture, manning arrangements, and the use of productivity schemes as part of employee remuneration impact productivity.

The Productivity Commission also noted that that limited competition in the labour market for operational stevedoring employees have been used by Australian waterfront unions to deliver favourable terms of employment to members.[119] The Productivity Commission also observed that in New Zealand, where both competition in the stevedoring labour market and in the supply of container stevedoring services are higher than Australia's, there was considerably more pressure to lift labour performance outcomes.

Multifactor productivity

Multifactor productivity, as measured by net ship rates, is a measure that combines the efficiency of both capital and labour inputs. BITRE estimates net ship rates by multiplying net crane rates with crane intensity, where crane intensity is the total number of crane hours divided by elapsed labour time.

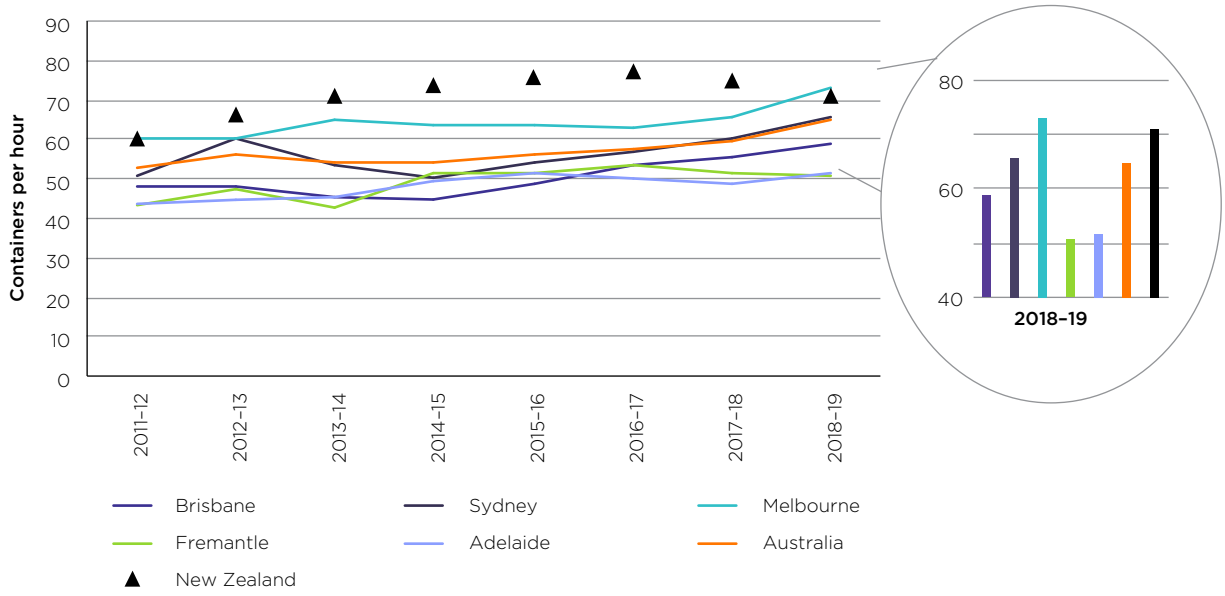
117 The New Zealand Ministry of Transport reports on various container stevedoring productivity measures for New Zealand container ports. The New Zealand Ministry of Transport and BITRE employ similar methodologies.

118 Productivity Commission, Work arrangements in container stevedoring, 1998.

119 Productivity Commission, Work arrangements in container stevedoring, 1998.

Figure 4.8 shows that net ship rates, as reported by BITRE, improved at all monitored container ports except Fremantle in 2018–19. New record highs for net ship rates have been recorded for the four ports except Fremantle. During the year, net ship rates rose in Melbourne by 11.1 per cent, followed by Sydney with an 8.8 per cent increase. Brisbane recorded 6.2 per cent growth in net ship rates, while Brisbane had 5.6 per cent. Net ship rates fell by 1.4 per cent at Fremantle.

Figure 4.8: Net ship rates, 2011–12 to 2018–19



Source: ACCC analysis of data from BITRE's forthcoming *Waterline 65*. New Zealand port productivity data sourced from the New Zealand Freight Information Gathering System.

Melbourne extended its lead as Australia's most productive international container port in 2018–19, and now handles on average 7.3 containers per hour more than the next most productive port, Sydney. However, over the past eight years, multifactor productivity at Sydney was most improved, rising by 29.0 per cent during the period.

Net ship rates are influenced by many variables. However, it is most significantly influenced by the number of cranes deployed by stevedores; net ship rates have a direct positive relationship with crane intensity.[120]

The ACCC's analysis of BITRE data suggests that, on average, more cranes are now being used by stevedores to work ships across the monitored container ports. In 2018–19, crane intensity rose by 6.0 per cent in Melbourne to average around 2.4 cranes used per ship, while in Brisbane it increased by 3.3 per cent to average around 2.0 cranes per ship. The number of cranes used on average at other ports fell with Adelaide crane intensity falling by 3.5 per cent to 1.6 cranes per ship and Fremantle by 2.2 per cent to 1.5 cranes per ship. The Adelaide result is notable given that the significantly increased net crane rates during the year likely enabled Flinders Adelaide to reduce the number of cranes they need to deploy to service ships.

The weighted average number of cranes used to service ships at the monitored Australian ports increased by 2.8 per cent in 2018–19 to 2.1 cranes. In New Zealand, crane intensities increased by 1.0 per cent to average 2.3 cranes per ship in 2018–19.

Figure 4.9 shows that stevedores are generally deploying more cranes to service ships than they did eight years ago. Crane intensities have risen the most at the east coast ports, where they increased by at minimum around 20 per cent, and with the average ship now serviced by at least two quay cranes.

120 Productivity Commission, International Benchmarking of Container Stevedoring, 2003.

Figure 4.9: Crane intensities, 2011–12 and 2018–19

Source: ACCC analysis of data from BITRE's forthcoming *Waterline 65*. New Zealand port productivity data sourced from the New Zealand Freight Information Gathering System.

The number of cranes deployed by stevedores generally depends on:

- availability of multiple cranes
- the TEU capacity of the ship
- the average call size
- the stowage pattern and whether vessel presentation enables usage of multiple cranes at once
- technical capabilities of crane fleet[121], and
- operating cost considerations.

While the weighted average Australian net crane rates have improved by 4.6 per cent over the past eight years, the average call size of ships during the same period have increased by 21.7 per cent. The increased crane intensity observed during the period likely arises from the need to ensure ships depart on schedule amidst increased ship call sizes.

Landside efficiency

After containers are unloaded from ships, in the case of an imported container, they would need to be picked up by land transport operators either via road or rail in order to deliver these to cargo owners. There is a commercial incentive for stevedores to maintain high landside service standards given its interdependence with the effectiveness of quayside services to shipping lines. More generally, there is also an incentive to improve the improve the efficiency by which container ports handle the interface with land transport operators given that it has a direct bearing on the overall capacity and efficiency of the broader container port.

Freight on rail

Most of the containers entering or leaving the premises of the monitored container ports are transported by trucks.

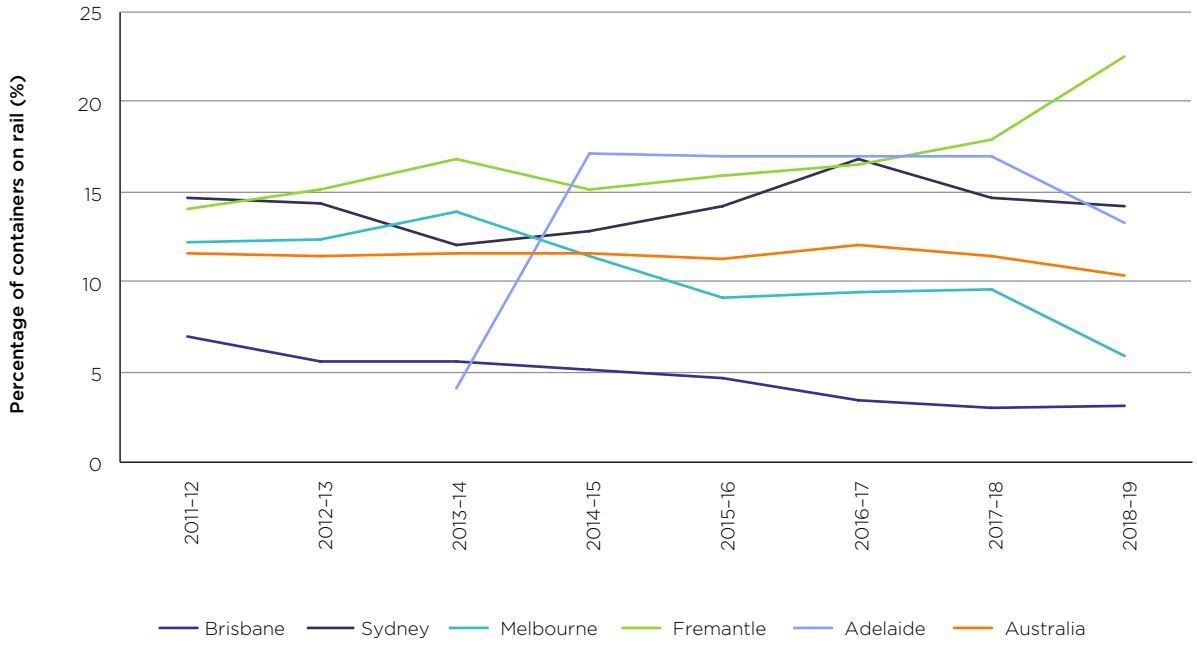
121 For example, stevedores whose crane fleets consist of more of newer ZPMC cranes capable of moving 30 containers per hour would generally have to deploy less cranes than stevedores whose crane fleets consist of older generation and less productive cranes.

The ACCC understands that the low take-up of rail is due to various reasons. For one, only certain supply chains can economically justify utilising rail; often rail is only commercially viable for heavy freight commodities such as grain that originate from distant regional areas. The high fixed cost of rail means that currently it often it cannot compete with road for the transport of container cargo over shorter distances such as within metropolitan areas. There may also be inefficiencies in infrastructure at the port and at inland container ports, which is at the other end of the rail network. There may also be connection constraints to key markets if freight railways do not offer connections to potential rail users, or if they do, are congested.

Figure 4.10 shows that 10.3 per cent of all the containers handled in Australia in 2018–19 travelled on rail. This represents a 1.1 percentage point reduction from the previous year.

The reduction in rail volumes was likely due to the drought conditions affecting regional areas that limited the production of various agricultural commodities which are typically transported on rail. Of particular note are Melbourne and Adelaide, whose freight on rail shares in 2018–19 both fell by 3.7 percentage points. Sydney's freight on rail share also fell by 0.5 per cent.

Figure 4.10: Freight on rail, 2011–12 to 2018–19



Source: ACCC analysis of data from BITRE's forthcoming *Waterline 65*.

Rail shares at Fremantle increased for the fourth consecutive reporting period, increasing by 4.7 percentage points to 22.5 per cent in 2018–19. Fremantle Ports attributed the result to the Western Australian Government's decision to raise the rail subsidy from $30 to $50 per TEU which currently extends to 2021–22.[122, 123] While the subsidy was useful achieving increased modal shift, some industry observers considered that more should be done to address structural constraints impeding rail competitiveness.[124] However, it should be noted that the increased take-up of rail in Fremantle may also be a result of previous investment at North Quay Rail Terminal which allowed for longer and more efficient train configurations to operate at the port and the Western Australian Government's maintenance of a dedicated rail freight network.[125]

122 Fremantle Ports, Record high 23.7 per cent of freight on rail in April, 2019, accessed 8 October 2019.

123 Government of Western Australia, 2019-20 State Budget Papers, Part 9—Transport, 2019.

124 L Roberts, Fremantle Port leading the charge for freight by rail, *Fremantle Gazette*, 2018, accessed 8 October 2019.

125 PricewaterhouseCoopers, Optimising the use of rail in landside port transport networks, 2017, accessed 4 October 2019.

On the other hand, while Brisbane freight on rail shares increased by 0.1 percentage points to 3.1 per cent in 2018–19, the port continues to lag the rest of the monitored ports. In a report on behalf of Port of Brisbane[126], it was found that the historically low take-up of rail in Brisbane was due to both the lack of investment in infrastructure and the fact that freight trains share the passenger rail network. This latter element leads to operational limitations and inefficiencies, delays, and longer transit times

While usage of rail in Melbourne and Sydney fell during the year, there are multiple new and ongoing initiatives to facilitate modal shift at these ports.

In Melbourne, the Port of Melbourne recently worked with DP World to close Coode Road West[127], thereby facilitating lower cost for DP World's on-dock rail handling facility at West Swanson Intermodal. The port also continues to progress its proposal to develop on-dock rail solutions which it says will complement the broader Port Rail Shuttle Network (PRSN) initiative. The Victorian Government allocated funding during the year to develop increased capacity at Somerton and Altona intermodal hubs as part of the PRSN initiative. The Victorian Government also continues to provide funding for the Mode Shift Incentive Scheme[128], which has been in place since 2014–15.

NSW Ports has also invested $120 million in improving on-dock rail infrastructure capacity at container terminals at Port Botany. Patrick committed $70 million to the project and will be the first beneficiary from the investment.[129] The Australian Government has allocated $400 million for both the Botany Rail Duplication Project[130] and the Cabramatta Loop project[131] which will improve rail connection efficiency, transit times and service reliability of trains to and from Port Botany. The projects also aim to increase capacity of the Sydney freight rail network and provide for future port shuttle services between Port Botany and the Moorebank Intermodal Terminal.

Truck turnaround times

Truck turnaround time (TTT) is an indicator of landside interface efficiency and reflects the length of time stevedores take to load or unload containers on trucks at their terminals.

Figure 4.11 shows that the weighted average TTT across the monitored Australian container ports increased (i.e. worsened) by 1.5 per cent to 29.3 minutes in 2018–19. TTT lengthened the most in Sydney where it rose by 7.3 per cent to 31.6 minutes, followed by Adelaide (up 3.2 per cent to 32.7 minutes) and Fremantle (up 1.6 per cent to 22.4 minutes). TTT improved in Brisbane where it fell by 2.1 per cent to 34.2 minutes and in Melbourne where it fell by 1.9 per cent to 25.5 minutes.

Over the past eight years, TTT was most improved at Fremantle (down 27.6 per cent) and Melbourne (down 18.7 per cent). Meanwhile, Adelaide TTT increased by 10.9 per cent during the same period, equivalent to 3.2 minutes.

126 Deloitte Access Economics, Connecting Inland Rail to the Port of Brisbane, 2019, accessed 15 October 2019.

127 Port of Melbourne, Coode Road West set to close in August, 2018, accessed 4 October 2019.

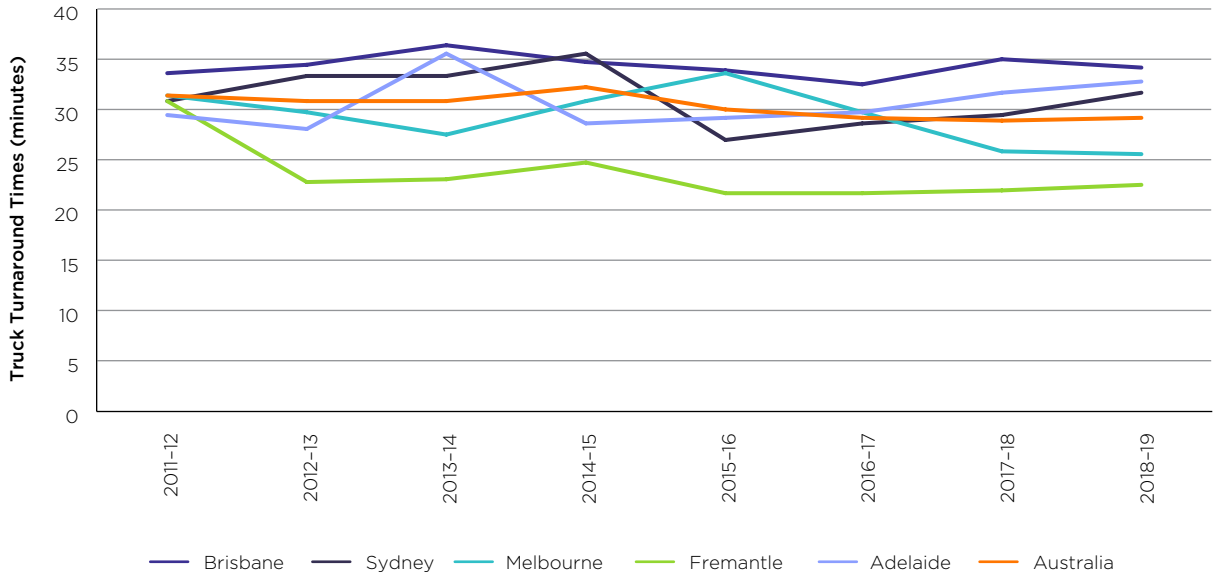
128 Department of Transport (Victoria), Key Freight Projects, accessed 8 October 2019.

129 NSW Ports, Rail capacity investment, 2018, accessed 10 October 2019.

130 Australian Rail Track Corporation, Botany Rail Duplication Project, 2018, access 10 October 2019.

131 Australian Rail Track Corporation, Cabramatta Loop Project, 2018, access 10 October 2019.

Figure 4.11: Truck turnaround times, 2011–12 to 2018–19



Source: ACCC analysis of data from BITRE's forthcoming *Waterline 65*.

TTT is driven by the performance and choice of terminal yard equipment such as straddles, rubber-tyred gantries and automatic stacking cranes. TTT is also influenced by the efficiency of terminal configurations. In particular, the distance that yard equipment has to travel between exchange grids can have an impact on the number of lifts it can make.

The extent to which transactions are conducted electronically, paperless, and pre-advised between truck operators and stevedores positively influence TTT.[132] In addition, stack densities have been found to be a key driver affecting TTT. Rehandling of containers may be required if containers need to be moved in order to access the container beneath or beside it. Higher stack densities have also been found to increase the frequency of rehandling required and thus tends to worsen TTT.[133]

Furthermore, yard equipment is finite. Terminals that allocate more equipment (such as straddles) to loading and unloading of ships may have their landside services to trucks adversely impacted, resulting in increased TTT, queueing and congestion. However, the reverse may negatively impact quayside service outcomes.

Truck utilisation rates

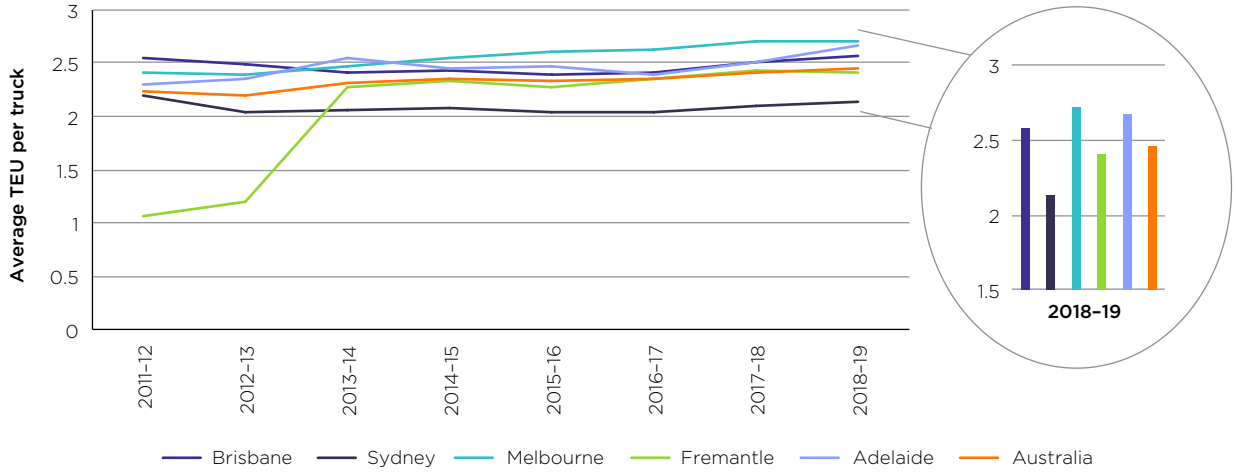
While TTT is an important measure, seeking to improve landside productivity levels by minimising TTT alone could have adverse effects. Stevedores have advised that seeking to lower TTT may encourage less containers to be loaded per given truck. The effect of this could be an increase in the number of trucks queueing at the terminals and increased landside congestion at the port precinct. Increasing average truck loads, while potentially leading to poorer TTT, would have the benefit of improving landside congestion at the port precinct by reducing the number of trucks.

Figure 4.12 shows that the weighted average load factor across the monitored container ports increased by 1.9 per cent to 2.46 TEU per truck. Average truck loads increased the most in Adelaide, where it increased by 6.3 per cent to 2.67 TEU, followed by Brisbane where it increased by 2.3 per cent to 2.57 TEU. Fremantle truck loads decreased by 1.0 per cent to 2.41 TEU. Although average truck loads at Sydney have increased for the third straight period in 2018–19 (by 2.0 per cent), its average load of 2.13 TEU remains the lowest of the monitored container ports. Melbourne's average load per truck, which increased by 0.6 per cent to 2.71 TEU during the year, continues to be the highest.

132 Patrick Terminals, Submission to IPART—Reforming Port Botany's links with inland transport, 2007, accessed 12 October 2019.

133 Independent Pricing and Regulatory Tribunal New South Wales, Review of the interface between land transport industries and the stevedores at Port Botany—Final Report, 2008, accessed 12 October 2019.

Figure 4.12: TEU per truck, 2011–12 to 2018–19



Source: ACCC analysis of data from BITRE's forthcoming *Waterline 65*.

Management of truck demand

Container terminals around the world have to optimally schedule landside access by trucks to prevent or alleviate congestion at the terminals. The Vehicle Booking System (VBS) and Truck Appointment System[134] (TAS) have been implemented to achieve this. These systems enable container terminals to receive information in advance regarding the arrival patterns of trucks. They then use this information to better plan resource allocation, reduce waiting times and mitigate congestion, and avoid spikes and pronounced quiet periods. In this sense, a properly managed and scheduled landside operation benefits both truck operators (through shorter TTT) and the terminal (more efficient use of resources).[135]

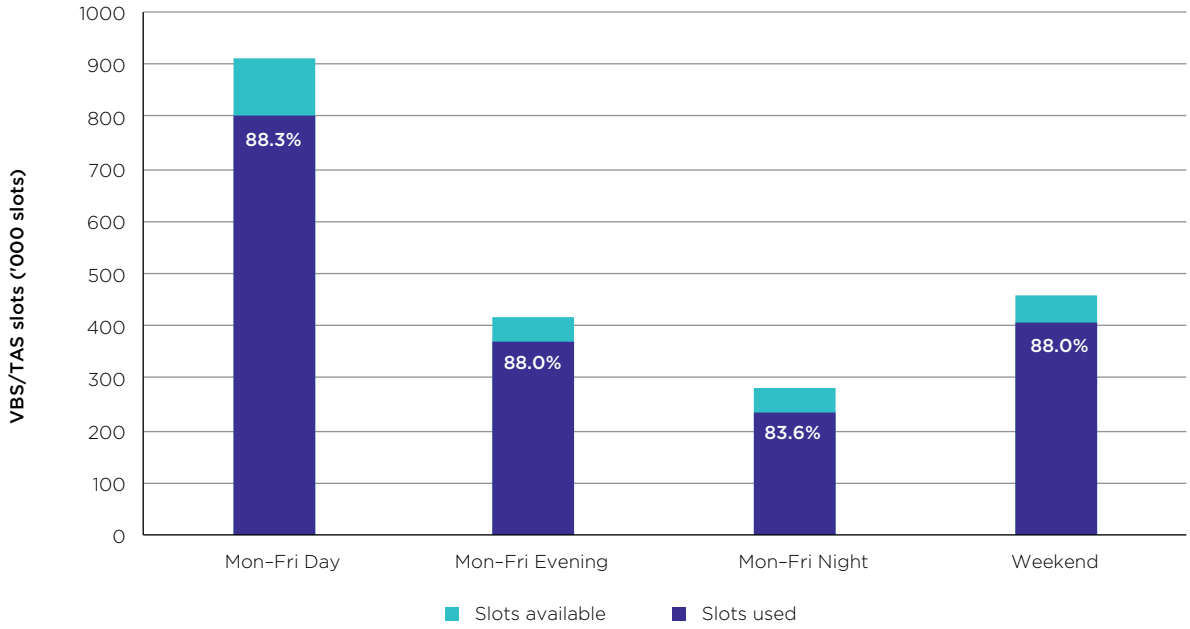
Figure 4.13 shows that in 2018–19, the stevedores are generally apportioning more than sufficient VBS/TAS slots relative to demand by trucking operators at all periods. The most in-demand timeslot, Mon-Fri Day, had 88 per cent of available slots used. The least in-demand timeslot, Mon-Fri night, had 83.6 per cent of available slots used.

While the majority of containers continue to be processed on Mon-Fri day (44.4 per cent of used slots), this proportion has reduced by around 5 percentage points compared to 2017–18. 22.3 per cent of containers were reportedly handled on weekends during the year, a 9 percentage point rise from last year. The proportion of containers handled during weekday nights and evenings fell by 2.4 and 1.4 percentage points respectively.

134 The Truck Appointment System is used at Hutchison terminals.

135 M Phan and K Kim, Collaborative truck scheduling and appointments for trucking companies and container terminals, Transportation Research Part B, vol. 86, 2016, accessed 14 October 2019.

Figure 4.13: Truck slots (VBS/TAS) availability and usage, 2018–19



Source: ACCC analysis of data from BITRE's forthcoming *Waterline 65*.

Note: Stevedores at the monitored ports do not have identical day, evening and night shifts. As such, data has been adjusted by BITRE to fit into standardised work shifts for comparative purposes.

We also observed variation in the number of slots deployed at each port, with some ports of roughly the same throughput having reporting significantly different numbers of total VBS/TAS slots. In particular, while Melbourne and Sydney had roughly similar TEUs in 2018–19, stevedores provided significantly more VBS slots at Melbourne. A large part of this is likely explained by the percentage of containers being transported on rail, which is much higher at Sydney than Melbourne. However, stevedores have also said that the size of the landside workforce employed, types of yard equipment deployed, and any limitations arising from terminal configurations at the ports may impact on the number of available slots.[136]

136 Independent Pricing and Regulatory Tribunal New South Wales, Review of the interface between land transport industries and the stevedores at Port Botany—Draft Report, 2007, accessed 12 October 2019.

05

Detailed monitoring results: industry revenue, cost, and profit

5. Industry revenue, cost and profit

This chapter presents the revenue, cost and profit of container stevedores operating at Australia's monitored ports. The ACCC aggregated submissions from the five container stevedores operating at these ports—Patrick Terminals, DP World Australia, Hutchison Ports Australia, Flinders Adelaide and VICT—in presenting the financial information in this chapter.

The financial information in this section and the broader report only relates to the stevedores' stevedoring operations. Revenue from other operations are not included.

As for the broader report, financial figures are presented in real terms unless otherwise specified.

Key results 2018–19

Revenue / lift	Quayside revenue / lift	Landside and other revenue / lift
$268.5	$190.4	$78.1
+ 1.8%	– 4.1%	+ 19.8%

Cost / lift	Labour cost / lift	Equipment cost / lift	Property cost / lift
$252.8	$130.2	$55.9	$39.4
+ 2.4%	+ 0.6%	+ 7.4%	+ 9.2%

Return on tangible assets	Operating profit margin
3.8%	5.9%
– 0.0 pp	– 0.5 pp

5.1 Revenue

Total revenue

Total revenue accounts for all revenue earned by container stevedores across their suite of stevedoring services. It includes revenue from their primary service of quayside lifting of containers on and off berthed ships. It also includes those from secondary sources, such as land transport operators receiving and delivering containers at the terminals, and ancillary terminal services.

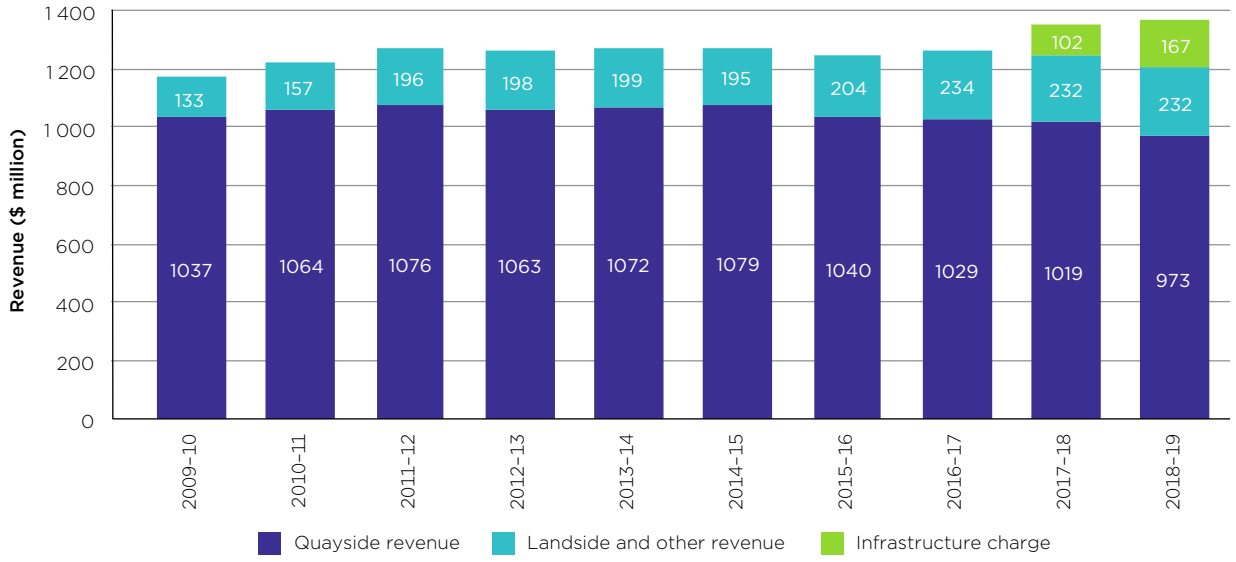
Total industry revenue was $1371 million in 2018–19.[137] While there has been three straight years of growth in total revenue, growth slowed from 7.1 per cent in 2017–18 to just 1.3 per cent in 2018–19. In addition, although substantial increases in landside charges (in particular infrastructure charges) have contributed to higher landside and other revenues, the effect on total revenue is partly offset by a contraction in full container lifts.

Figure 5.1 illustrates the trend in stevedores' total revenue over the past ten years. The 2017–18 and 2018–19 columns separately report revenues earned from infrastructure charges that apply on all full containers handled at the ports, otherwise the revenue is aggregated under 'landside and other' sources.

Landside and other revenue made up around 29 per cent of total revenue in 2018–19, the same as in 2017–18. Infrastructure charges made up 12.2 per cent of total revenue, up from 7.5 per cent in 2017–18.

137 Some stevedores included revenue generated from services not directly related to container stevedoring in previous reports. As agreed with stevedores, these have been removed from the revenue base in this report.

Figure 5.1: Total revenue, 2009–10 to 2018–19



Source: ACCC analysis of container stevedores' submissions to the monitoring regime. Deflator series derived from the ABS CPI (cat. no. 6401.0, tables 1 and 2, Index Numbers; All Groups CPI; Australia). Base year for ACCC deflator series: 2018–19.

Note: Infrastructure charges have been collected by container stevedores at some ports since 2010–11.

Quayside revenue

Quayside revenue accounts for all revenue earned by stevedores in its core service of lifting containers on and off ships at berth. Most quayside revenue is earned by stevedores from supply contracts with shipping lines. However, there are situations when stevedores are unable to fulfil their contract to service a ship. Stevedores may then 'sub-contract'[138] the ship to other terminals within the container port at agreed rates. Revenues from sub-contracting within the period are included in quayside revenue, although these are typically of an immaterial magnitude. Furthermore, costs relating to any loyalty/volume rebate programs or other service level agreements with shipping lines are deducted from overall quayside revenue.

Quayside revenue fell by 4.5 per cent in 2018–19 to $972.5 million. Stevedores pointed to soft market conditions that saw a fall in container lifts as the primary cause for the sizeable reduction in quayside revenue. The continued price pressure from shipping lines, and the increasing proportion of empty containers, have also had a downward effect on revenue.

Despite a substantial increase in total lifts since 2009–10 (31.1 per cent), quayside revenue has fallen by 6.2 per cent during this same period.

Landside and other revenue

Landside and other revenue consists of revenue earned from the provision of services such as the receival and delivery of containers, access charges, temporary container storage, reefer monitoring, hazardous container handling, and from other miscellaneous terminal services. Revenue aggregated under this item is typically generated from land transport operators such as truck and rail haulage operators, however a smaller amount is related to non-core stevedoring services to shipping lines.

138 There are instances where the contracted stevedoring terminal is not able to fulfil the supply contract with the shipping line. In such cases, to avoid supply chain delays, ships are sub-contracted to another terminal for defined periods and at agreed rates, subject to the approval of the shipping line. Sub-contracting may be required for various reasons such as congestion, terminal maintenance, commissioning of new equipment, or industrial disputes. The ACCC understands that sub-contracted ships typically attract higher average quayside lift rates.

Aggregated revenue from landside and other sources increased by 19.2 per cent to $398.7 million in 2018–19. A significant portion of the growth is explained by notable increases in infrastructure charges by all stevedores at Brisbane, Melbourne and Sydney. Some terminal access charges such as VBS slot fees and rail lift/access charges have also risen in the period.

A brief discussion of broad trends in major components of landside and other revenue over the past year follows.

Infrastructure charges

All container stevedores levy infrastructure charges on all full containers handled at the monitored ports.

Revenue from infrastructure charges continued to escalate in the period. The industry reported revenue of $167 million in 2018–19, up 63.3 per cent from the previous reporting period. There were significant price increases at the east coast ports, while Flinders Adelaide implemented a charge beginning July 2018. However, a fall in the number of full containers that attract an infrastructure charge in the period reduced the impact of higher prices on revenue.

Further information on the infrastructure charges and the extent of their increases in 2018–19 can be found in section 2.4.

Terminal access charges

Terminal access charges refers to revenue earned from truck and rail operators acquiring slots or windows which are required in order to receive or deliver containers at the stevedoring terminals.

Revenue from terminal access charges rose by 17.1 per cent to $47.4 million in 2018–19. The revenue growth is largely explained by increases in various VBS/TAS slot fees (which applies to trucks) by stevedores during the period.

Stevedores attributed the price increase as being necessary to sustain investment in critical infrastructure amidst increasing competition and low profits, although some stevedores did not communicate to market a justification for their increase.

Storage

While containers stored at the terminals are subject to a 'free storage period' of three working days, stevedores charge customers for containers not collected within this period. Storage tariffs for import containers that remain at the terminal beyond the free storage period are payable by land transport operators. Fees may apply from stevedores re-handling temporarily stored containers. Stevedores also charge for power and monitoring costs for reefer containers filled with perishable goods. Storage charges also apply for handling dangerous and out-of-gauge cargo.

Storage revenues increased marginally (by 0.9 per cent) to $78.9 million[139] in 2018–19. The minor increase in revenue is attributable to increases in various storage charges. Stevedores generally attributed the price increase to rising rent and other property costs. However, lower numbers of containers dwelling at the terminals during the period have reduced the upward effect of the price increases on revenue.

Storage pricing can be used by stevedores to manage the utilisation of limited space at the terminal by incentivising cargo owners (through land transport operators) to minimise time spent by containers at terminals. Incentivising early pick up of containers also reduce terminal congestion and associated effects on operating costs. To some extent, lower container dwell times may also enable lower stack densities and thus lower truck turnaround times.

139 The ACCC changed its methodology of aggregating storage revenues in 2018–19. To allow for changes on storage revenues to be observed relative to the previous reporting period, the ACCC requested that container stevedores reclassify related revenue in 2017–18 consistent with the new methodology.

Chain of responsibility

'Chain of responsibility' regimes in Australia recognise that safety in the heavy vehicle supply chain is a responsibility of all participants. Safety is an obligation of not just land transport operators but is also shared among shipping lines, container stevedores, freight forwarders and cargo owners. Specific requirements are placed on all parties in the supply chain to ensure that vehicle mass, load restraints, dimensions, proper permits, and other appropriate safety measures are observed.

In 2018–19, total revenue from chain of responsibility charges was around $5.5 million, an increase of 15.1 per cent from the previous year. The revenue increase is largely explained by stevedores acquiring and deploying additional weigh-in-motion bridges at their terminals during the year.

The weigh-in-motion equipment ensures the accuracy of container weight declarations and may also prevent overloaded containers from leaving the port precinct. Stevedores levy various charges to recover plant acquisition costs of weighbridges and to recover additional handling costs from handling non-compliant containers.

Miscellaneous landside handling[140]

In addition to terminal slot and rail access charges, container stevedores may pass on other non-core landside handling fees arising from additional costs incurred by additional container handling. Cost recovery from activities such as sideloader handling, container turning, and manual processing of trucks which may cause terminal delays are aggregated under this item. Revenues from 'no shows'[141] or 'wrong zone'[142] penalties, which terminals use to discourage land transport operators from overbooking slots or arriving late and causing terminal resources to at times be either over- or under-utilised, is also included under this item.

Revenue from miscellaneous landside handling activities fell by 6.9 per cent in 2018–19 to $11.5 million. The ACCC notes that it is difficult to capture the factors that explain the reduction in miscellaneous landside revenue in the period. Indeed, while stevedores implemented various increases in miscellaneous landside fees in 2018–19, in particular wrong zone and no show penalty fees, the ACCC also understands that stevedores may waive certain fees at their discretion.

Unit revenue

Information on actual prices charged by container stevedores for all services is not collected as part of the ACCC's monitoring regime. Instead, the ACCC aggregates various revenue measures and divides these by an appropriate unit of output to provide an indication of average prices per unit of output. Total quayside and landside and other revenues are also unitised to provide an indication of average prices for both interfaces.

The ACCC uses revenue per lift to measure overall industry prices. Revenue per lift is a standard industry indicator and is calculated by dividing the sum of total revenue by the number of containers lifted.

Following six consecutive years of average price reductions, stevedores posted a revenue per lift increase of 1.8 per cent to $268.5 per container in 2018–19. The increase in average industry prices was influenced by a 19.2 per cent rise in landside and other revenue per lift to $78.1, offsetting a 4.1 per cent erosion in average quayside lift prices to $190.4.

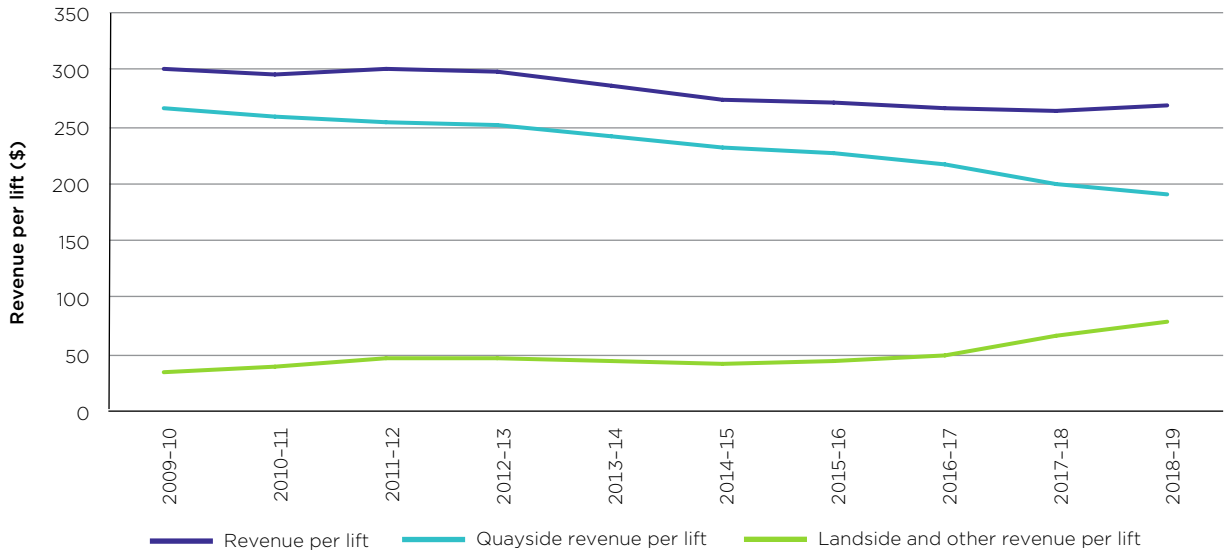
Figure 5.2 illustrates trends in revenue per lift in the past ten years.

140 In previous monitoring reports, revenue under 'miscellaneous landside handling' was aggregated under 'VBS'. The ACCC revised its revenue aggregation methodologies in 2018–19. To allow for changes on non-access related landside revenues to be observed relative to the previous reporting period, the ACCC requested that container stevedores reclassify related revenue in 2017–18 consistent with the new methodology.

141 Trucks not arriving at all at its booked slot.

142 Trucks arriving outside its hour-long VBS timeslot.

Figure 5.2: Trends in revenue per lift, 2009–10 to 2018–19



Source: ACCC analysis of container stevedores' submissions to the monitoring regime. Deflator series derived from the ABS CPI (cat. no. 6401.0, tables 1 and 2, Index Numbers; All Groups CPI; Australia). Base year for ACCC deflator series: 2018–19.

An alternative measure of average prices may be calculated by dividing revenue by the total number of TEUs handled. However, the ACCC notes that a relative increase in the prevalence of 40 foot containers would have an arbitrary downward effect on average prices expressed in per TEU terms. Container stevedores generally earn the same revenue from servicing a 40 foot container as they do for servicing 20 foot containers.

Total revenue per TEU in 2018–19 increased by 1.1 per cent to $173.9.

Average revenues generated from full and empty containers

Stevedores typically generate more revenue per lift from a full container than an empty container. The ACCC has been advised that one reason for this is because temporary storage charges may be incorporated into tariffs charged to shipping lines for lifting full containers. This is because a full export container is more likely to dwell at the terminal prior to being loaded on to the vessel, whereas an empty container will typically be processed within 24 hours of the designated vessel arriving. Tariffs paid by shipping lines for full container may also cover related cargo insurance costs.

The ACCC also understands that higher tariffs for lifting full containers are partly due to the fact that these costs are directly passed on by shipping lines to the relevant cargo owner through terminal handling charges. In contrast, the movement of empty containers between ports represents a cost to the shipping lines. Some terminals whose markets experience shortages in empty containers required for exports may also set lower prices specifically to incentivise empty container imports.

Stevedores also generate more revenues for handling a full container from a landside perspective. This is because full containers incur infrastructure charges paid by truck and rail operators, while empty containers do not.

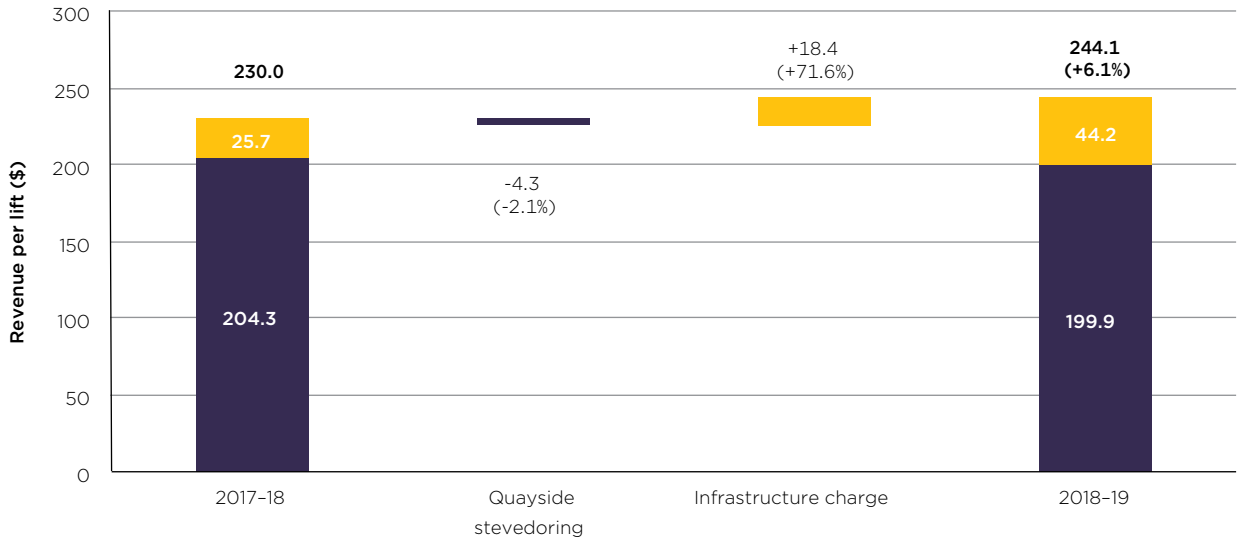
To enable the ACCC to observe broad movements in full and empty container price structures, from 2018–19 the ACCC commenced collecting disaggregated quayside and landside revenues for full and empty containers.[143]

143 To allow for changes in full and empty container average lift prices in 2017–18 and 2018–19 to be observed, the ACCC requested the ACCC requested that container stevedores to vary their 2017–18 submissions disaggregating revenues for full and empty containers.

Revenue per lift of full containers

New data collected by the ACCC in 2018–19 shows that the average full container generated $244.1 in stevedoring fees, an increase of 6.1 per cent from the previous year. While full container stevedoring revenue per lift fell by 2.1 per cent to $199.9, these were more than offset by large increases in infrastructure charges at most container ports. These figures do not take into account costs from other access charges such as VBS/TAS slot fees, rail access and lift fees which vary in application between stevedores.

Figure 5.3: Revenue per lift—full containers, 2017–18 to 2018–19



Source: ACCC analysis of container stevedores' submissions to the monitoring regime. Deflator series derived from the ABS CPI (cat. no. 6401.0, tables 1 and 2, Index Numbers; All Groups CPI; Australia). Base year for ACCC deflator series: 2018–19.

Average revenues per full container increased at all monitored container ports in 2018–19, largely due to significant increases in or the introduction of new infrastructure charges.

The ACCC observed a substantial variation in quayside stevedoring rates for full containers across the twelve container terminals at the monitored ports in 2018–19. As expected, average prices are lower in the east coast where there is increased competition in the supply of stevedoring services, while average quayside stevedoring revenue per full container are highest in Adelaide where there is only one terminal.

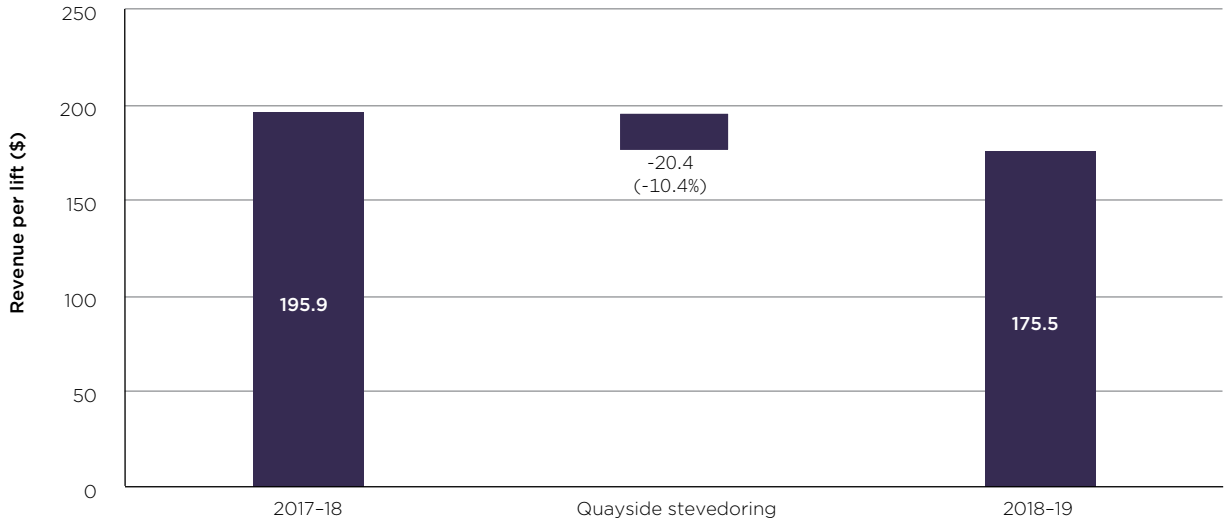
Further, while average quayside full container stevedoring rates fell at most (but not all) container terminals in 2018–19, the variation between the highest and lowest average rates also fell. This narrowing of rates was due to lower priced terminals reporting increased average full container rates during the year.

Revenue per lift of full containers, including quayside stevedoring and infrastructure charges, was lowest in Fremantle in 2018–19.

Revenue per lift of empty containers

New data collected by the ACCC in 2018–19 showed a sharp fall in average prices charged by stevedores to shipping lines for lifting empty containers relative to the previous period. In particular, average unit revenues for empty containers dropped by 10.4 per cent to $175.5 in 2018–19.

Figure 5.4: Quayside revenue per lift—empty containers, 2017–18 to 2018–19



Source: ACCC analysis of container stevedores' submissions to the monitoring regime. Deflator series derived from the ABS CPI (cat. no. 6401.0, tables 1 and 2, Index Numbers; All Groups CPI; Australia). Base year for ACCC deflator series: 2018–19.

Average empty container rates generally fell at most container ports in 2018–19 except Adelaide. Similar to the average full container rate trend, stevedores reported the lowest average rates in Fremantle.

The ACCC observed a very large variation in average quayside stevedoring rates for empty containers across the twelve container terminals. There were drastic reductions in average quayside rates of empty containers at a number of container terminals during the period, however some terminals reported higher average quayside rates.

5.2 Cost

Operating cost incurred by container stevedores arises primarily from the use of labour and equipment for loading and unloading containers onto ships on the quayside and receival and delivery processes on the landside. Stevedores also incur property costs associated with rent charged by the landlord port and for any expenditure on property repairs and maintenance.

Stevedores also incur corporate overheads cost from resources used to support overall container terminal operations and planning. While these costs are regarded as indirectly related to the provision of the container stevedoring service, the ACCC nonetheless aggregates these as part of total cost.

Total cost

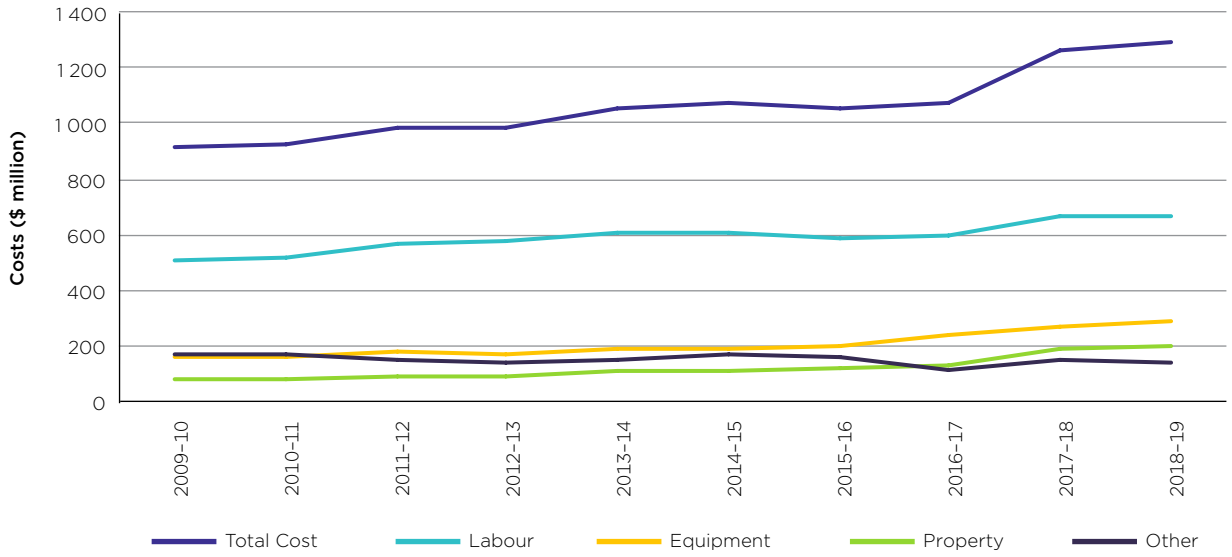
Total cost is made up of labour, equipment, property, and other costs relating to the operations of stevedores. In 2018–19, the container stevedores reported a 1.9 per cent increase in total cost to $1291 million.[144] This growth was far below that for the previous year (17.5 per cent). The increase in 2017–18 was heavily influenced by VICT's costs being included for an entire financial year for the first time.

While an immaterial increase in labour cost was reported in the year, equipment and property costs continued to rise. Figure 5.5 illustrates trends in major stevedoring industry cost components since 2009–10.

144 Some stevedores reported operating expenditure incurred from provision of services not directly related to container stevedoring in previous reports. As agreed with stevedores, these have been removed from the cost base.

Previous monitoring reports highlighted that the inclusion of recent entrants such as VICT, and to a lesser extent Hutchison Ports, have led to an increase in industry costs. However, the impact of the new stevedores on the industry cost base is decreasing given an overall increase in business activity among these stevedores.

Figure 5.5: Cost, 2009–10 to 2018–19



Source: ACCC analysis of container stevedores' submissions to the monitoring regime. Deflator series derived from the ABS CPI (cat. no. 6401.0, tables 1 and 2, Index Numbers; All Groups CPI; Australia). Base year for ACCC deflator series: 2018–19.

Labour cost

Labour cost primarily involves the cost of hiring staff necessary for the provision of quayside and landside terminal services. While stevedoring labour makes up the largest share of total labour cost, other costs from employing maintenance, management, planning and other support staff factor in to total labour cost.

An immaterial increase of 0.1 per cent to $664.9 million was observed in total labour cost in 2018–19. While stevedoring staff wages generally continued to rise, lower container volumes during the year necessitated less stevedoring labour requirements at a number of terminals. Indeed, operational labour costs fell by 0.6 per cent in 2018–19 to $514.7 million. However, various industrial disputes during the year meant that a number of ships were serviced at night or during weekends when labour rates are generally higher.

Some stevedores such as Flinders Adelaide and Hutchison also introduced a number of measures to lift labour productivity and realise cost efficiencies during the year (see Chapter 6). In addition, stevedoring labour costs were also contained by higher volumes flowing through VICT, which has naturally lower labour costs due to automation.

Stevedores reported a 5.0 per cent increase in total maintenance labour costs to $69.8 million. This was due to increased maintenance staff numbers and continued increases in wages and other employment provisions.

DP World has implemented various measures to contain its operating costs. One of its initiatives is to introduce a program of voluntary redundancies in its Melbourne and Sydney terminals.[145] The effect of DP World's labour initiatives will be observed in the next reporting period.

145 A Patty, DP World to shed another 200 wharfies as docks dispute escalates, *Sydney Morning Herald,* 2019, accessed 13 October 2019.

Equipment cost

Equipment cost relates to the deployment of physical assets necessary in facilitating quayside and landside stevedoring services. These assets include a mix of ship-to-shore cranes, straddle carriers, rubber-tyred gantries, automatic stacking cranes, shuttle carriers, reach stackers and forklifts. Costs associated with the maintenance and depreciation of these assets are also included. Naturally, equipment cost for capital intensive industries such as container stevedoring is significant.

The industry reported a 6.9 per cent increase in total equipment costs to $285.4 million in 2018–19. In particular, equipment running cost increased significantly in the year (15.6 per cent to $49.0 million) with most stevedores reporting higher equipment input costs such as energy and fuel and from general increases in equipment utilisation to service higher volumes. Depreciation costs rose by 9.2 per cent to $150.9 million in 2018–19, with some stevedores such as DP World understandably reporting larger depreciation costs owing to recent significant additions to its tangible asset base. Completion of capital expenditure projects currently being progressed by some stevedores will also likely result in further increases in depreciable assets in future reporting periods.

Property cost

Property costs primarily reflect the cost of container stevedores leasing land and wharf infrastructure owned by the port authority that is then used in the provision of stevedoring services.

Lease structures such as the quantum of land rent charged per square metre of terminal land, length of lease and renewal options, rent escalation methods, and any productivity incentives are commercially negotiated between stevedores and the ports. Land rents are the most significant component of stevedores' lease costs. These escalate typically above CPI on an annual basis and are subject to periodical market rent reviews.

Land taxes and council rates that apply for container terminal facilities are liabilities of the landlord port but are subsequently recovered—in whole or in part—from stevedores as lease outgoings. Expenses incurred for the repair and maintenance of these facilities are also included.

Total property cost increased by 8.7 per cent in 2018–19 to $201.0 million.[146] Property costs increased above CPI at all container ports with the exception of Fremantle. The ACCC understands that DP World and Patrick are in the final stages of their lease negotiations with Fremantle Ports and any resulting fixed rent increases will be observable in subsequent reporting periods. All three stevedores at the Port of Melbourne reported notable increases in fixed rent costs. In particular, VICT's rent costs increased due to the commencement of Phase 2 lease costs and not due to a rent review by the port. At Port Botany, all stevedores reported that although NSW Ports did not increase fixed rent costs, variable lease fees increased. The increased rent cost in Adelaide is attributable to a market review by its parent landlord Flinders Ports.

Table 5.6 outlines stevedores' reported port rents and lease outgoing costs in 2018–19 relative to 2017–18.

146 From 2018–19, property costs attributable to assets that do not directly relate to the provision of container stevedoring services have been removed from the operating cost base. This had the effect of reducing total cost reported in previous periods.

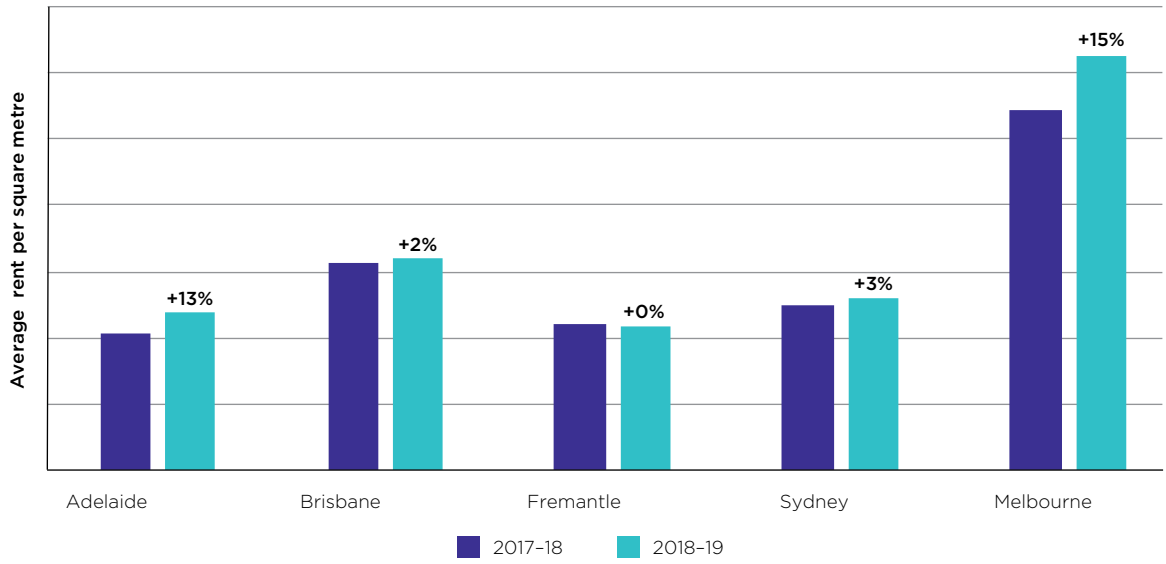
Table 5.6: Stevedore rents and lease outgoings 2017–18 to 2018–19

	Adelaide	Brisbane	Fremantle	Sydney	Melbourne
2018–19 value ($'000)	6 438	33 803	9 479	52 387	82 037
Change from 2017–18	12.6%	1.8%	–0.1%	3.2%	13.1%

Source: ACCC analysis of container stevedores' submissions to the monitoring regime. Deflator series derived from the ABS CPI (cat. no. 6401.0, tables 1 and 2, Index Numbers; All Groups CPI; Australia). Base year for ACCC deflator series: 2018–19.

Figure 5.7 shows changes in the average rents per square metre at the monitored container ports from 2017–18 to 2018–19. The ACCC notes that due to stevedores' current lease structures with the Port of Melbourne, continued escalation in Melbourne rents is expected in future periods.[147]

Figure 5.7: Average rent per square metre, 2017-18 to 2018–19



Source: ACCC analysis of container stevedores' submissions to the monitoring regime. Deflator series derived from the ABS CPI (cat. no. 6401.0, tables 1 and 2, Index Numbers; All Groups CPI; Australia). Base year for ACCC deflator series: 2018–19.

Note: Average port rents per square metre calculated by dividing the sum of total fixed and variable port rents in a given container port by total leased areas designated for international container terminals. Excludes lease outgoing costs. Vertical axis of chart intentionally left blank.

Unit cost

As figure 5.8 shows, industry cost per lift increased by 2.3 per cent in 2018–19 to $252.8 per container. While stevedores reported reductions in indirect costs during the year, these were more than offset by continued increases in rents at some ports and higher depreciation from recent significant additions to the asset base. Indeed, on a per lift basis, property cost increased by 9.2 per cent in 2018–19, equipment cost increased by 7.5 per cent, and labour cost increased by 0.6 per cent.

147 M Stevens, Port privatisation forces price inflation on Australian importers and exporters, *Australian Financial Review*, 2017, accessed 5 October 2019.

Figure 5.8: Movement in cost components, 2017–18 to 2018-19

Source: ACCC analysis of container stevedores' submissions to the monitoring regime. Deflator series derived from the ABS CPI (cat. no. 6401.0, tables 1 and 2, Index Numbers; All Groups CPI; Australia). Base year for ACCC deflator series: 2018–19.

Labour cost has traditionally made up the largest cost component in container stevedoring. However, with recent significant investments in (semi) automation operating technologies at the east coast, and the development of one of the world's most fully automated terminals by VICT, the significance of labour cost per unit of container handled has reduced. Labour cost per lift in 2018–19, at 51.5 per cent, is the lowest observed throughout the 21 years of the ACCC's monitoring of the waterfront. A study found that in East Asian ports the proportion of labour cost to total cost is around 35 per cent, while it is around 50 per cent in Northwest Europe, and around 65 per cent on the west coast of the United States.[148]

Amidst the backdrop of investment in technological and operating mode change, it is not surprising that equipment cost is gradually making up an increasing proportion of total unit costs (now at 22.1 per cent).

Property cost represented 15.5 per cent of unit cost in 2018–19. While still a relatively small component, property cost is likely to continue increasing in prominence in future reporting periods as terminal occupancy cost rises.

5.3 Profitability

In absolute terms, industry operating profit fell by 4.7 per cent to $81.3 million in 2018–19. Operating profit is measured by earnings before interest, taxation, and amortisation (EBITA). Three stevedores improved their profitability, one saw its profits decrease, and the other had no material change in profitability.

Assessing profitability is important to a wide range of competition policy issues. For example, profitability may be used in assessing market power or the degree of competition in the market, since these concepts are defined in terms of firms' ability to raise prices consistently and profitably above competitive levels. It may also be relevant in the assessment of the height of entry barriers in a market.

For capital heavy industries such as stevedoring, profits that are persistently in excess of the cost of capital likely means that stevedores are pricing above competitive levels due to lack of competition.[149]

148 Nils Kemme, Design and Operation of Automated Container Storage Systems, 2013.

149 According to economic theory, in a perfectly competitive market, prices are set at the level of cost, where cost includes a 'normal' profit margin to cover the cost of having to remunerate providers of capital to the firm or industry. In contrast, monopoly or (most) oligopolistic markets set prices above cost and earn 'super-normal' profits.

On the reverse, low profits, if it persists over the long-term[150], may mean that firms would find it difficult to justify committing expenditure for new and/or replace investments.

The ACCC is able to present the following profitability measures on an annual basis in its container stevedoring monitoring reports:

- 'return on assets' represented by EBITA as a percentage of the value of tangible assets
- 'operating profit margin' represented by EBITA as a percentage of revenue.

While these indicators can shed light on some aspects of the container stevedores' performance, they reflect accounting rates of return, which rely on book values of investment and accounting profits. As a result, they can be affected by non-cash items such as bad debts and depreciation and do not take into account the time value of money.

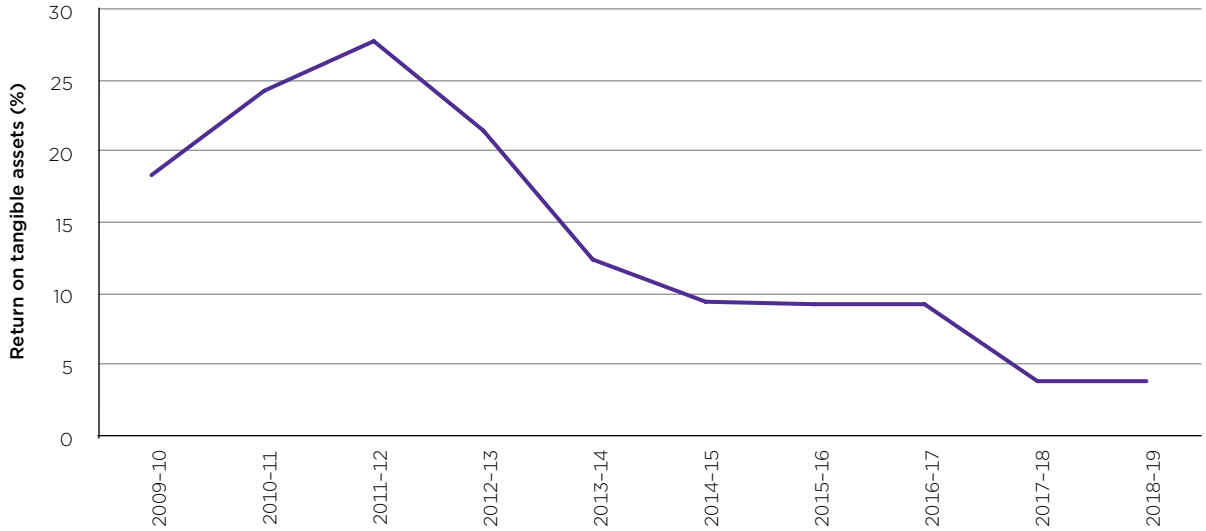
A proper assessment of industry profitability would rely on appropriate economic indicators such as the internal rate of return or the net present value. However, collecting this information would require information on container stevedores' efficient long-run costs, which is beyond the scope of the monitoring regime.

Return on tangible assets

Rate of return on tangible assets is an accounting profitability measure that provides an indication of stevedores' profits relative to the value of their deployed tangible assets. Industry return on tangible assets was unchanged in 2018–19 at 3.8 per cent.[151] This figure was impacted by Hutchison's write down of the value of its asset base. This had the effect of reducing the tangible asset base for the industry, therefore raising the industry's reported return on tangible assets.

As shown by figure 5.9, return on tangible assets has fallen continually since peaking at 27.8 per cent in 2011–12 which was a time when there was less competition on the east coast.

Figure 5.9: Return on average tangible assets



Source: ACCC analysis of container stevedores' submissions to the monitoring regime.

Note: In calculating return on average tangible assets, neither EBITA nor asset values are indexed. Asset values recognise a write-down in the value of Hutchison's asset in both 2015–16 and 2018–19.

150 Low profits over the short term for stevedoring, where assets deployed are long-lived, may not necessarily deter investment if the net present value of an activity is not negative.

151 The previous monitoring report, the rate of return on tangible assets reported was 2.1 per cent. This value has been revised to 3.8 per cent in this report. The revision largely reflects the removal of various items attributable to assets or services not directly related to container stevedoring.

The downward trend in industry-wide return on tangible assets has been influenced by reductions in unit revenue and increasing unit costs. However, the more significant factor is the large expansion in value of deployed assets in the east coast beginning 2012–13 from the entry of Hutchison, large scale automation and redevelopment of various Sydney and Brisbane terminals, and VICT's entry.

The headline industry return on assets is not reflective of the large variance in return on tangible assets individually reported by the stevedores; most stevedores' return on tangible assets increased during the year, however some stevedores reported lower returns. There is also a large variation in the quantum of reported returns; some stevedores' return on tangible assets appear much higher, while others are experiencing negative returns.

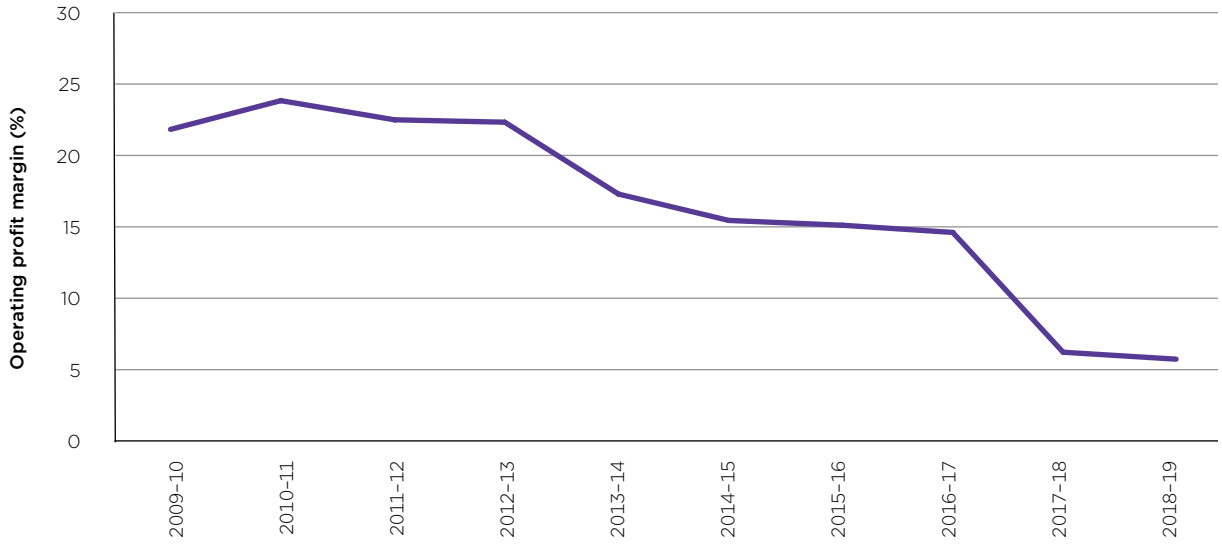
Operating profit margin

Operating profit margins refer to the ratio of earnings before interest, tax, and amortisation (EBITA) relative to total revenue. It isolates the effects of variation in operational size and scale among stevedores and allows an assessment of the industry's overall profitability.

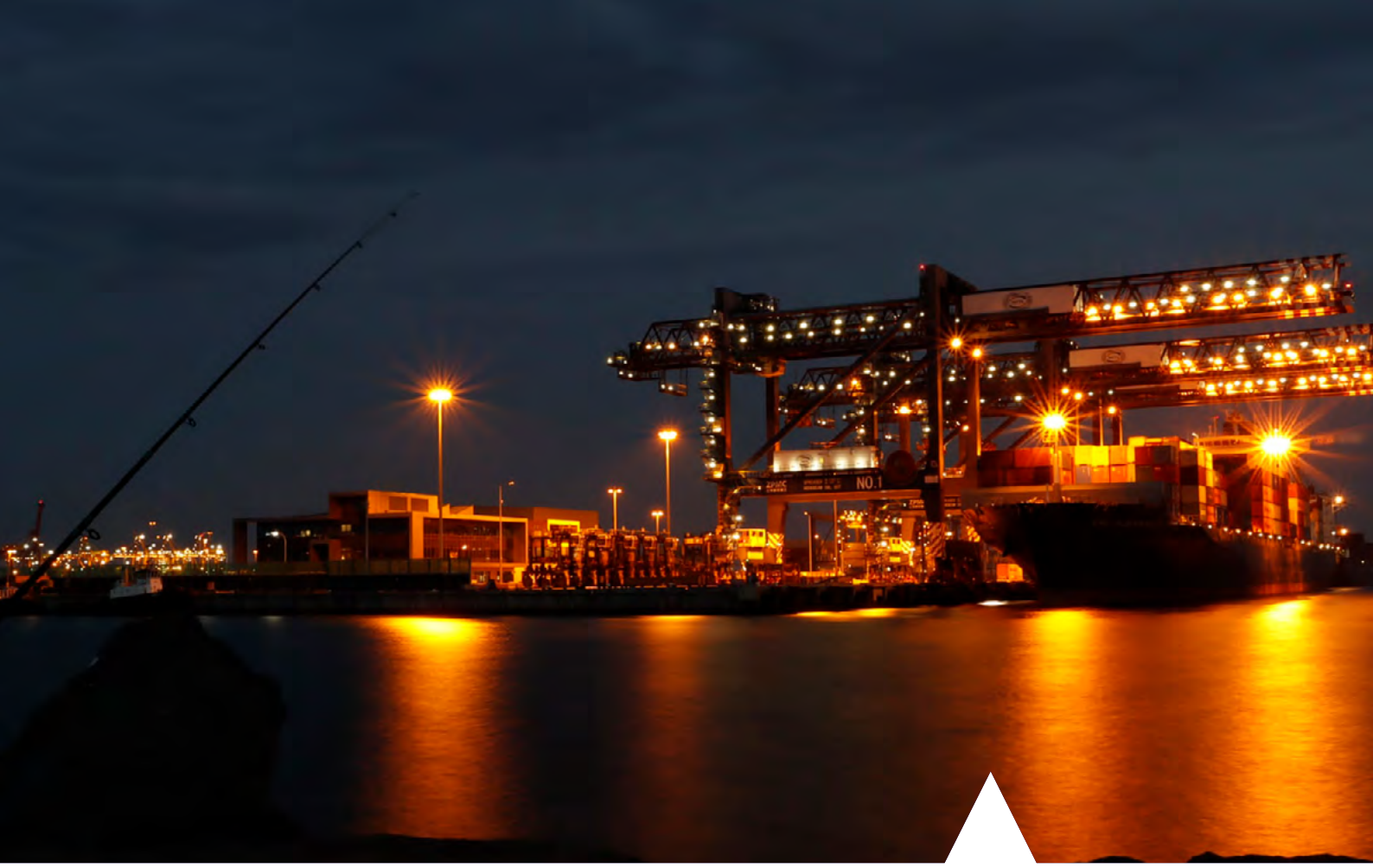
Figure 5.10 shows that the slide in industry margins that began in 2011–12 continued in 2018–19 with operating margins at a new low of 5.9 per cent in the latest reporting period.

Similar to return on assets, the headline operating profit margin reduction during the year belies the large variation in movements in different stevedores' operating margins. Three stevedores reported either improved operating profit margins or negative margins, while two stevedores reported reductions in margins.

Figure 5.10: Operating profit (EBITA) margin, 2009–10 to 2018–19



Source: ACCC analysis of container stevedores' submissions to the monitoring regime.



06

Detailed monitoring results: individual operating performance of monitored stevedores, investments, and initiatives

6. Individual operating performance of monitored stevedores, investments, and initiatives

This chapter presents data submitted to the ACCC by the five stevedores operating at the monitored container ports in 2018–19: Patrick Terminals, DP World Australia, Hutchison Ports, Flinders Adelaide, and VICT. It outlines key observations on the five container stevedores' throughput, as well as factors affecting revenues, costs and profits. It also reports on investments and any other initiatives adopted by container stevedores with the purpose of improving quayside and/or landside efficiency.

The ACCC indexes individual operating performance to protect commercially-sensitive information. Consistent with other chapters in this report, revenues, costs and profits are indexed to CPI.

Supplementary data on trends in cost components for each of the monitored container stevedores disaggregated on a terminal basis can be found on the ACCC's website.

Key results 2018–19

	Lifts	Total revenue per lift	Total cost per lift	Operating profit or (loss)	Asset additions[152]
Patrick Terminals	+4.5%	+2.7%	–0.9%	+22.4%	+0.2%
DP World Australia	–12.3%	+0.1%	+10.5%	–82.0%	+11.6%
Hutchison Ports Australia	+0.8%	+6.0%	–2.2%	(–11.3%)[153]	+2.1%
Flinders Adelaide	+0.8%	+6.1%	+7.4%	–4.0%	+1.7%
VICT	+147.0%	+2.9%	–49.9%	(–42.0%)[154]	0.0%

6.1 Patrick Terminals

Patrick Terminals has a long history of providing various waterfront services in Australia. Founded in 1919, Patrick Terminals commenced business as the Patrick Steamship Company providing ocean freight transport services on the east coast of Australia.[155] Patrick's focus shifted to the provision of container stevedoring services in the 1950s and would grow to be one of Australia's leading terminal operators. Formerly a subsidiary of the Asciano logistics conglomerate, Patrick Terminals was acquired in August 2016 by a consortium comprising Qube Holdings Ltd and Brookfield Infrastructure Partners LP.[156]

152 Additions as a percentage of opening value of tangible assets.

153 Loss reduction.

154 Loss reduction.

155 Patrick Terminals, History of Patrick, accessed 10 October 2019.

156 The ACCC conducted an extensive public review of the transaction and decided not to oppose the acquisition. More information on the ACCC's consideration of the transaction is available here: https://www.accc.gov.au/media-release/accc-will-not-oppose-acquisition-of-asciano-by-qube-brookfield-and-others.

Patrick was the first stevedore to implement automation technology in Australia when it implemented automated straddle technology in Brisbane in 2007.[157] Recently, Patrick achieved a significant milestone in celebrating its centenary year of operating on the Australian waterfront.

Patrick currently operates a container terminal at each of the following capital city container ports: Brisbane, Fremantle, Melbourne, and Sydney. Patrick ceased operating its Burnie container terminal in May 2011.

Volumes handled

Patrick Terminals' total lifts increased by 4.5 per cent to 2.2 million containers, while the number of TEUs handled increased by 5.2 per cent to 3.4 million TEU.

Patrick was Australia's largest container stevedore in 2018–19; over the period it handled 43.5 per cent of national lifts, an increase from 41.5 per cent in the previous year. In the four markets in which it participates, Patrick handled 46.2 per cent of lifts, an increase from 43.9 per cent in the previous year.

Patrick's volume result was particularly strong given the weak growth in the markets in which Patrick participates. Patrick's result benefitted from its success in tendering for several new shipping service contracts.[158] During the reporting period, Patrick said that it secured a number of services including the CAE/A1X service's Sydney call, and benefitted from the AAX2[159] service's Brisbane call. During the period, Patrick was also successful in renewing contracts such as the NEAX/AUJ shipping service contract which calls at all of Patrick's east coast terminals.

Patrick's result also benefitted from sub-contracting from other terminals during the period.

Revenue

Patrick's total revenue increased by 7.2 per cent in 2018–19. Revenue per lift increased by 2.7 per cent.

New shipping services secured at a number of terminals during the year, as well as the full-year effect of services secured in the previous year buoyed Patrick's revenue result. In particular, net quayside revenues increased by 2.1 per cent. However, on a per-lift basis, net quayside revenue continued to edge lower, consistent with industry trend. The quayside revenue trend is also partly explained by higher growth of empty containers—which typically attract lower quayside rates—relative to laden containers.

Patrick's substantial increases to infrastructure charges in March 2018 and in March 2019 on full containers handled at its east coast terminals,[160] as well as increases in landside slot access charges, both contributed to a 22.4 per cent growth in landside and other revenues. While substantial increases are observed in slot access charges and miscellaneous landside tariffs in percentage terms, these had a marginal upward effect on Patrick's revenues.

Cost

Patrick's total operating cost increased by 3.5 per cent over the year but fell by 0.9 per cent on a per-lift basis.

In 2018–19, total labour costs increased by 4.6 per cent primarily due to increased manning hours required to service increased volumes. On a lift basis, labour costs rose marginally (by 0.1 per cent).

Equipment costs[161] rose by 2.7 per cent following increased costs of inputs such as electricity and fuel, deployment of additional equipment such as reefer power generators, as well as increased costs from maintaining terminal equipment. Equipment costs on a lift basis fell by 1.7 per cent.

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157 Patrick Terminals, Operations, accessed 10 October 2019.

158 Patrick's advice to ACCC. Confirmed where possible with shipping lines and Patrick's e-Link portal.

159 While Patrick benefited from the AAX2 calling its Brisbane terminal during the reporting period, we understand that the contract for this service has been renegotiated.

160 Patrick Terminals, Infrastructure Surcharge: effective from 4 March 2019, accessed 10 October 2019.

161 Excludes amortisation.

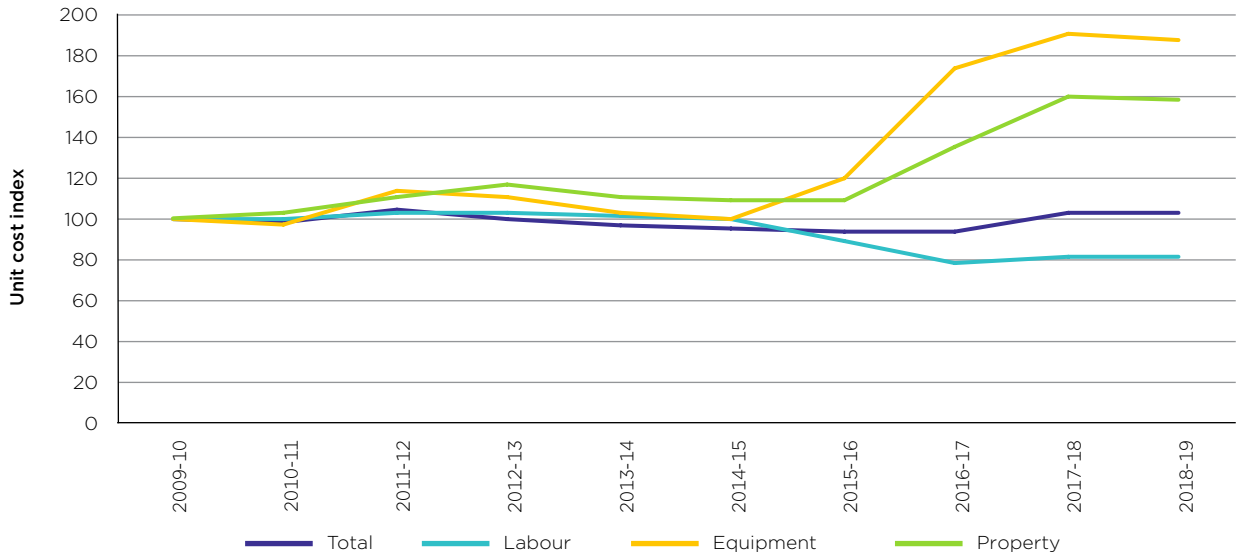
Patrick reported a 3.6 per cent increase in property-related costs. Patrick anticipates that the ongoing lease negotiation with Fremantle Ports Authority will result in a significant increase in property costs which will be observed in subsequent reporting periods. Total lease outgoing costs fell by 4.4 per cent. Property costs per lift fell by 0.8 per cent in 2018–19.

Compared to levels observed in 2009–10, Patrick's total costs per lift have increased by 2.4 per cent. Over the decade, labour costs per lift have fallen by 18.1 per cent, the strongest unit labour cost result of all the stevedores. Patrick's unit labour costs remain the lowest of the monitored container stevedores.

Equipment costs per lift have risen by 86.7 per cent over the decade while property costs per lift have risen 58.2 per cent.

Figure 6.1 outlines trends in Patrick's unit cost components for the past decade

Figure 6.1: Movement in Patrick's cost components per lift, 2009–10 to 2018–19



Source: ACCC analysis of Patrick's reported operating costs. Deflator series derived from the ABS CPI (cat. No. 6401.0, tables 1 and 2, Index Numbers; All groups CPI; Australia). Indexed to a base year of 2009–10.

Profitability

Patrick's national operating profits rose by 22.5 per cent in 2018–19.

Investments and other initiatives

Current investments

Patrick committed to significant new tangible assets in 2018–19, with partially-completed investment worth $35 million for new quay cranes, straddle carriers and significant undertakings to improve efficiency in their terminals' operating systems. These investment commitments will reflect in Patrick's tangible asset bases as soon as they are completed and employed. Patrick's expenditure on tangible assets reflects 0.2 per cent of the opening value of its asset base (excluding partially-completed investment).

Planned investments and other initiatives

Patrick is also committing around $150 million across 2019–20 and 2020–21 on various quayside and landside equipment and systems across its terminal portfolio.

In particular, Patrick committed to investing $70 million in rail handling equipment and systems to support ongoing expansion and automation of its existing on-dock rail terminal at Port Botany.[162] This investment is being done in partnership with NSW Ports which is contributing $120 million to the project. Once complete, the project is expected to lift rail handling capacity at Patrick's Sydney terminal to 1 million TEU and provide more rail windows for use by cargo owners in regional NSW. The project is intended to also allow Patrick to re-design its rail sidings, remove inefficiencies in rail handling operations and improve train turnaround times. Construction is expected to have commenced by September quarter 2019.[163]

Patrick is also considering investments in rail handling equipment, systems, and infrastructure as part of the development of an on-dock rail terminal in its Melbourne terminal. Further investment to upgrade equipment, systems, and infrastructure at its Fremantle terminal will also be committed to as soon as Patrick is able to come to an agreement with Fremantle Ports on the terms of its terminal lease.[164]

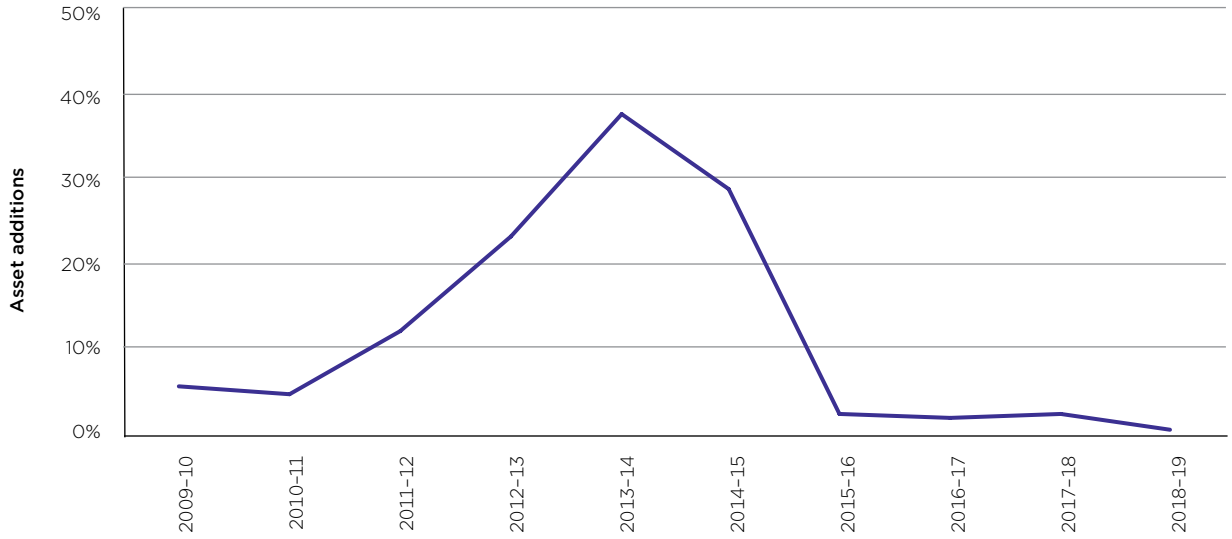
Past investments

Patrick has invested significantly in equipment and new technology in the past to provide more efficient quayside and landside services. Notable investments in the past decade include:

- redevelopment, expansion and semi-automation of Port Botany terminal in 2013–14
- eight new quay cranes purchased in 2012–13 and deployed from 2013–14 and 2014–15 across its four terminals. These include three new Port Botany 'goose-neck cranes' which enable Patrick to service large ship sizes at its Sydney terminal despite crane height restrictions from air traffic to neighbouring Sydney Airport.

Figure 6.2 graphically illustrates Patrick's investments across its terminal portfolio in the past 10 years. After peaking in 2013–14, investment has slowed in recent years, in line with most other stevedores.

Figure 6.2: Additions to Patrick's national tangible asset base, 2009–10 to 2018–19



Source: ACCC analysis of Patrick's annual additions to its opening tangible asset base.

162 NSW Ports, NSW Ports and Patrick Terminals commence work on $190 million project to double on-dock rail capacity at Port Botany, accessed 10 October 2019.

163 Qube Holdings, Qube Annual Report 2019, accessed 10 October 2019.

164 Advice from Patrick.

6.2 DP World Australia

DP World's presence on the Australian waterfront began following its parent company's 2006 acquisition of P&O Ports' (the Peninsular and Oriental Steam Navigation Company) Australian container terminals.[165, 166]

DP World Australia is part of DP World's global business, which operates more than 78 container terminals across six continents. DP World re-acquired a majority stake in DP World Australia during the year.[167] Minority stake in the company is controlled by Corsair Infrastructure Partners and other institutional investors.

DP World currently operates a container terminal at each of the following capital city container ports: Brisbane, Fremantle, Melbourne and Sydney.

Volumes handled

DP World reported substantial volume losses in 2018–19 with total lifts falling 12.3 per cent to 2.0 million containers. TEU volumes fell 12.2 per cent to 3.1 million.

During the reporting period, DP World handled 39.1 per cent of national lifts, a substantial reduction from 44.4 per cent in 2017–18. In the four markets in which it participates, DP World handled 41.5 per cent of lifts, down from 47.1 per cent from the previous year.

The ACCC observed substantial lift contractions at all three of DP World's east coast terminals. Lifts in Melbourne fell the greatest (–17.1 per cent), followed by Brisbane (–15.1 per cent), and Sydney (–7.3 per cent). Less severe contractions were observed at DP World's Fremantle terminal (–0.6 per cent).

DP World's volume losses in the period are a confluence of the following:

- shipping service rationalisation and resulting blank sailings
- loss of quayside service contracts to competing terminals
- ad-hoc subcontracting to other terminals due to operational disruptions caused by installation of new equipment and industrial relations disputes, and
- overall weaker demand in container stevedoring services.

Revenue

DP World's total revenue decreased by 12.3 per cent in 2018–19 but marginally increased (by 0.1 per cent) on a per lift basis.

DP World's net quayside revenues fell by 18.4 per cent owing to substantial volume losses in the period. Net quayside revenues per lift fell by 6.9 per cent. Similar to other stevedores, DP World's quayside revenue trend is also partly explained by higher proportion of empty containers (which attract lower quayside rates) relative to laden containers.

Substantial increases in landside tariffs across its terminal portfolio, particularly to infrastructure charges at its east coast terminals, contributed to a 5.4 per cent increase in DP World's landside and other revenues.[168] While substantial increases are observed in slot access charges and miscellaneous landside tariffs[169] in percentage terms, these had only a marginal upward effect on DP World's revenues.

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165 DP World Australia, An Australian story, accessed 10 October 2019.

166 DP World Global's acquisition of P&O Ports' Australian container terminal assets was considered by the ACCC in 2006. The ACCC did not oppose the transaction and considered that the proposed acquisition will not lead to a substantial lessening of competition. See our media release here: https://www.accc.gov.au/media-release/accc-not-to-oppose-the-proposed-acquisition-of-po-ports-by-dp-world.

167 DP World Global, DP World 2018 Annual Report, 2019, accessed 10 October 2019.

168 DP World Australia, DP World Australia to adjust charges, 2018, accessed 10 October 2019.

169 DP World Australia, Notice to DP World Australia customers: amended infrastructure access charges from 1 January 2019, 2018, accessed 10 October 2019.

Cost

DP World's operating cost fell by 2.9 per cent in 2018–19, but increased by 10.7 per cent on a per-lift basis.

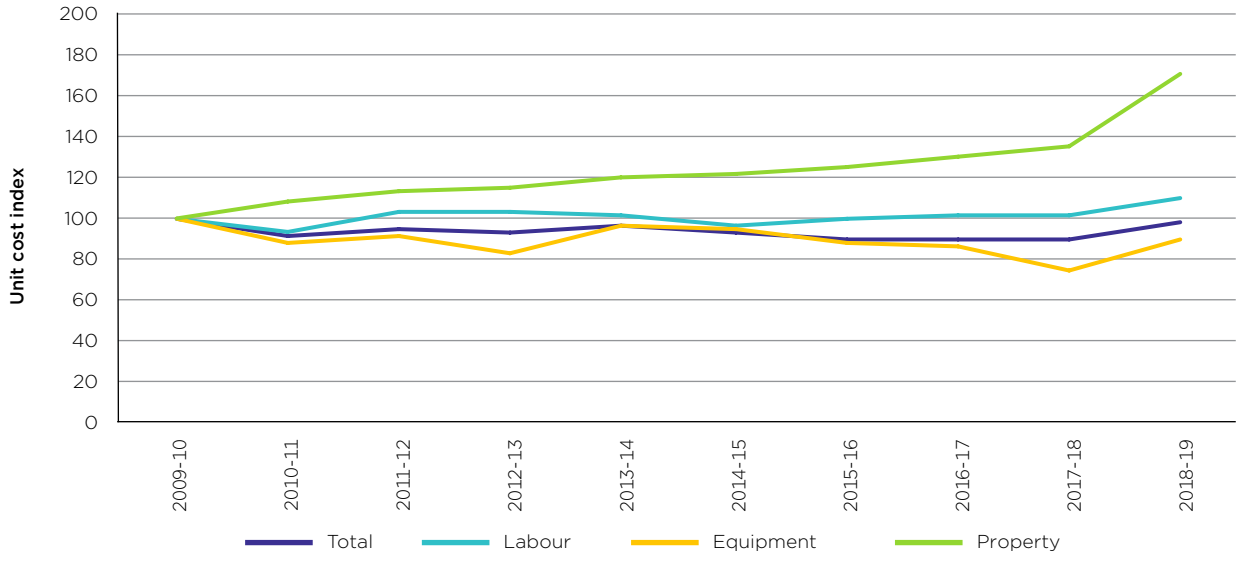
Total labour costs fell by 4.0 per cent primarily due to lower labour requirements resulting from lower demand for terminal services. However, DP World noted that this result is partly offset by continued wage increases and maintenance labour costs from the use of older terminal equipment in providing its services. Labour costs on a lift basis rose by 9.5 per cent.

DP World reported an increase of 5.9 per cent to total equipment costs in the period despite lower volumes. While costs from equipment running and associated inputs such as fuel and energy fell due to lower terminal demand, these were well offset by substantial increases in asset depreciation flowing from recent substantial investments. On a lift basis, equipment costs increased by 20.8 per cent.

Total property costs jumped by 10.6 percent in 2018–19. DP World reported a 20.1 per cent increase in fixed rents charged by the Port of Melbourne.[170] While the fixed rent increase in Brisbane was also above CPI, it was substantially less. Below CPI increases in fixed rent costs have been reported for Fremantle. While fixed rents did not change in Sydney, DP World reported a substantial increase in its variable (performance) rent. DP World also reported a 10.2 per cent increase in council rates and other lease outgoing costs. Property costs on a lift basis increased by 26.2 per cent.

Figure 6.3 outlines movements in DP World's cost components over the decade. DP World's total costs per lift have fallen by 1.1 per cent over this period. Labour costs per lift have risen by 10.6 per cent and property costs per lift have ballooned by 71.9 per cent. However, increases in terminal equipment costs have been effectively supressed with unit equipment costs falling by 10.4 per cent relative to 2009–10 levels. Substantial reduction in indirect container stevedoring costs over the decade contributed to DP World's total cost per lift result.

Figure 6.3: Movements in DP World's cost components per lift, 2009–10 to 2018–19



Source: ACCC analysis of DP World's reported operating costs. Deflator series derived from the ABS CPI (cat. No. 6401.0, tables 1 and 2, Index Numbers; All groups CPI; Australia). Indexed to a base year of 2009–10.

170 M Stevens, Port privatisation forces price inflation on Australian importers and exporters, *Australian Financial Review*, 2017, accessed 5 October 2019.

Profitability

DP World's national operating profit (EBITA) contracted by 82.0 per cent in the reporting period.

Investments and other initiatives

Current investments

DP World's large-scale investment program continued in 2018–19 resulting in a substantial increase in its tangible asset base. DP World's new capitalised tangible assets for the period reflects 11.6 per cent of the opening value of its national tangible assets.

Five of the nine new Super-Post Panamax quay cranes DP World purchased arrived in 2018. The quay cranes are each worth around $14 million and are required to service the larger container ships increasingly being deployed on Australian container shipping routes. The purchase will either add to existing terminal crane profiles or be a replacement for older cranes.

DP World ordered nine replacement Internal Transfer Vehicles (ITV) for its Sydney terminal. According to DP World, the addition to the terminal's ITV fleet would assist in improving quayside and landside operational reliability.

DP World also purchased 11 replacement forklifts for its Brisbane and Melbourne terminals to replace similar equipment that have reached the end of their practical service lives.

Current operating efficiency initiatives

DP World continues to progress numerous non-capex initiatives to improve its operating efficiency and its service offering to quayside and landside customers.

In Melbourne, DP World worked with the Port of Melbourne to close Coode Road West.[171] The road was permanently closed to traffic from 13 August 2018, eliminating the road dividing West Swanson container and intermodal terminals. DP World considers that the closure will facilitate reduced truck turnaround times and allow it to provide a lower cost on-dock rail service by reducing container re-handling costs. DP World aims to integrate the West Swanson intermodal and container terminal sites in the long term as means to increase operating capacity. The road closure cost DP World $4 million.

DP World began implementing Weigh-in-Motion and Gate Optical Character Recognition at the truck gates of its Melbourne terminal in 2017–18. The Weigh-in-Motion technology will record individual axle weights and vehicle weights as the trucks drive over the weighbridge. This initiative also improves truck drivers' visibility of container weights. The optical character recognition system will streamline entry conditions and reduce truck turnaround times through a more efficient assessment of the container's physical information (such as its number, height, damage, position on truck) relative to the terminal's manifest.

DP World is looking to address various IT needs including the replacement of end of life IT equipment, improving redundancy and failover capabilities, and, providing terminal network solutions that facilitate DP World's continuing technology enhancements. This project will cost $8 million and be completed in late 2019.

DP World continues to plan for further tangible asset investments for 2019–20 to improve quayside and landside efficiency. DP World envisages investments in yard equipment such as rubber tyred gantries, straddles, forklifts and internal transfer vehicles for the next reporting period.

171 Port of Melbourne, Coode Road West set to close in August, 2018, accessed 4 October 2019.

Planned investments and other initiatives

DP World plans[172] to make further investments in tangible equipment. In particular, DP World plans to purchase new and/or replacement equipment such as:

- rubber tyred gantry cranes for its Sydney terminal
- straddles and shuttle carriers for Melbourne and Brisbane terminals respectively, and
- more forklifts and internal transfer vehicles for its Fremantle terminal.

DP World is also considering initiatives to develop additional non-automated stacking capacity at its Brisbane terminal.

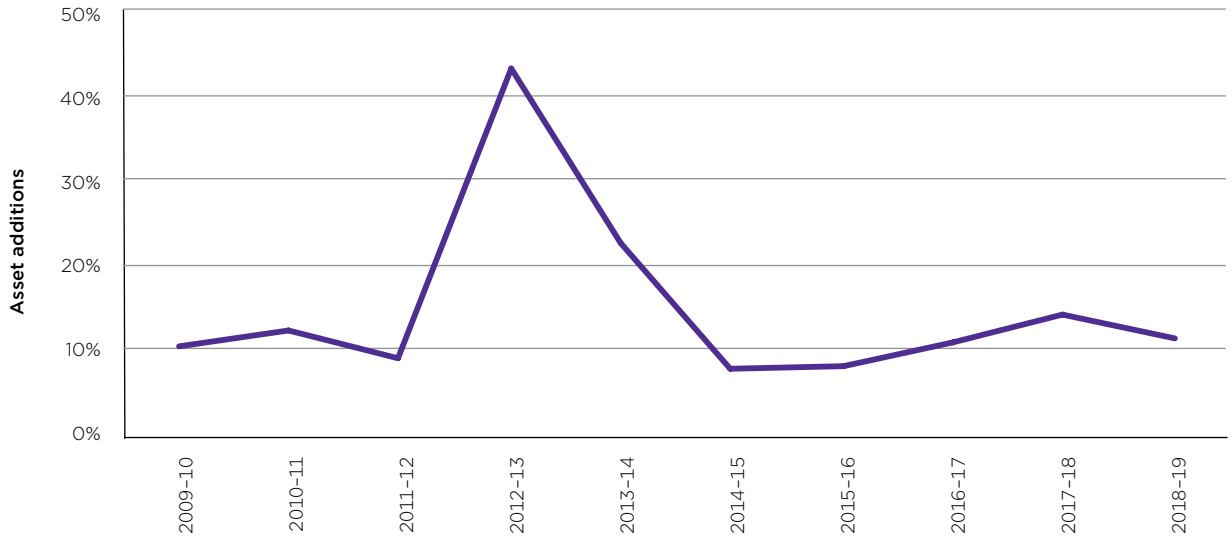
Past investments

The ACCC observes that DP World's current investments continues the stevedore's trend of investing in its terminals. Notable DP World investments in the past decade include:

- semi-automation and redevelopment of its Brisbane terminal around 2012–13
- significant expansion in yard capacity at its Melbourne terminal and development of on-dock rail handling capability in 2014–15
- periodical procurement of larger and higher productivity quay cranes for all of its terminals, and
- large scale civil expansion projects at Sydney and Melbourne terminals.

Figure 6.4 graphically illustrates DP World's investments across its terminal portfolio over the past ten years.

Figure 6.4: Additions to DP World's national tangible asset base, 2009–10 to 2018–19



Source: ACCC's analysis of DP World's annual additions to its opening tangible asset base.

172 Advice from DP World.

6.3 Hutchison Ports Australia

Hutchison began operating its container terminal in Brisbane in May 2013 and its terminal in Sydney in November 2013.

Hutchison Ports Australia is a subsidiary of the Hong-Kong based Hutchison Port Holdings, the world's second largest container terminal operator by volumes handled. Hutchison Ports operates in 52 ports spanning 27 countries worldwide.

Volumes handled

Hutchison recorded a 0.8 per cent increase in total lifts to 331 000 containers in the year and an equivalent 2.1 per cent increase in TEUs handled to 528 000 TEUs. Lifts in Brisbane rose by 4.8 per cent, however lifts fell in Sydney by 1.1 per cent in 2018–19. NSW Ports reported that Hutchison's share of the Sydney container stevedoring market was around 13 per cent as at January 2019.[173]

The lift increase in Brisbane is attributable to Hutchison securing the Brisbane call of the CAE/A1X service beginning late 2018.

Hutchison now has three shipping services calling at each of its Brisbane and Sydney terminals. The Sydney terminal services A3S, ASAL and Trans-Tasman (TTZ), while the Brisbane terminal services A3S, CAE/A1X, and NZS.[174]

Revenue

Hutchison's total revenue increased by 5.2 per cent in 2018–19. Revenue per lift increased by 6.0 per cent on a lift basis.

Net quayside revenue increased by 3.8 per cent, owing to Hutchison's new service win in Brisbane. Hutchison's net quayside revenue per lift increased by 2.9 per cent, the only stevedore to report an increase since 2015–16.

Hutchison's landside and other revenue increased by 9.9 per cent in 2018–19, a lower growth rate compared to most other container stevedores. The growth reflects the fuller effect of the $10.45 infrastructure charge increase in Sydney from July 2018 and the partial effect of the charge's subsequent increase to $35.84 in May 2019. CPI increases have been applied on the Brisbane infrastructure levy during the period. Various increases in slot access charges, storage rates and miscellaneous landside tariffs also contributed to the overall landside and other revenue result.

Cost

Hutchison reported a 1.4 per cent reduction in total operating cost, while on a lift basis total cost fell by 2.2 per cent. Hutchison reported a significant impairment charged to its fixed assets, however it did not recognise the impairment charge under operating cost.

Total labour costs fell by 1.0 per cent in the year despite a small increase in overall stevedoring staff numbers and a new service win. Hutchison said that the improvement in labour cost result is explained by its efforts to improve labour utilisation through:

- better roster planning and stevedoring labour management, and
- implementing operational efficiencies by improving terminal traffic routing and processes for handling yard equipment.

Hutchison reported a reduction of 1.9 per cent in labour cost per lift.

173 NSW Ports, Inquiry Into Impact of Port of Newcastle Sale Arrangements On Public Works Expenditure in New South Wales', NSW Parliamentary Inquiry Submission, 2019.

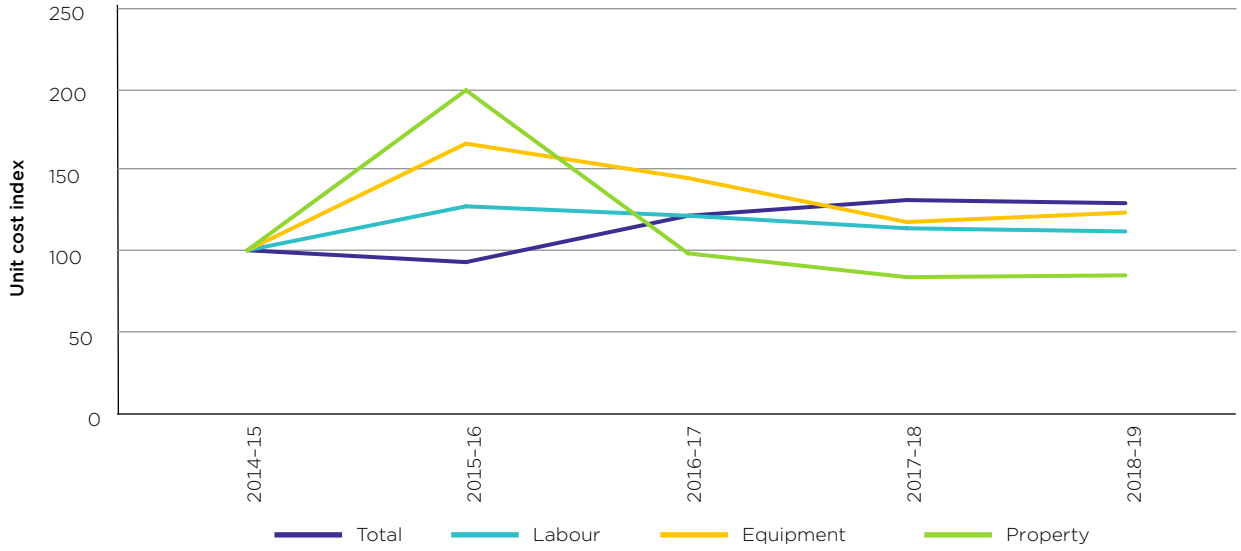
174 Hutchison Ports Australia, HPA Portal—Vessel Schedule, accessed 10 October 2019.

Hutchison reported that increased running time of equipment and higher wear and tear from higher volumes in Brisbane contributed to a 5.2 per cent rise in equipment costs. Hutchison's total property costs increased by just 1.2 per cent, the lowest increase experienced by any of the monitored container stevedores. Equipment costs per lift rose by a modest amount (4.3 per cent) in the year.

Hutchison reported that its fixed port rents at Brisbane and Sydney rose above CPI while reductions in Brisbane lease outgoing costs were more than offset by an increase experienced in Sydney. Variable rents charged by NSW Ports rose barely above CPI. Property costs on a lift basis increased by 0.4 per cent in 2018–19.

Hutchison's unit cost components have risen since 2014–15. The exception is property costs which have fallen by 15.6 per cent. In that period labour costs increased by 11.7 per cent and equipment costs increased by 23.0 per cent. Figure 6.5 illustrates movements in Hutchison's cost components per lift since 2014–15.

Figure 6.5: Movements in Hutchison's cost components per lift, 2014–15 to 2018–19



Source: ACCC analysis of Hutchison's reported operating costs. Deflator series derived from the ABS CPI (cat. No. 6401.0, tables 1 and 2, Index Numbers; All groups CPI; Australia). Indexed to a base year of 2014–15.

Profitability

Hutchison continued to incur an operating loss in 2018–19. However, losses in 2018–19 represent an 11.3 per cent improvement relative to 2017–18.

The ACCC notes that Hutchison recognised a substantial impairment charge of its fixed assets which worsened its reported net profit or loss

Investments and other initiatives

Hutchison's expenditure on new tangible assets in 2018–19 reflected 2.1 per cent of the opening value of its tangible asset base. Expenditure for the year was primarily devoted to replacing the terminals' quayside surface drainage systems to ensure an efficient all-weather operation. The acquisition cost of deploying weighbridges, automatic gate systems, automated stacking cranes electronics upgrade, and other workshop tools and equipment have also been capitalised.

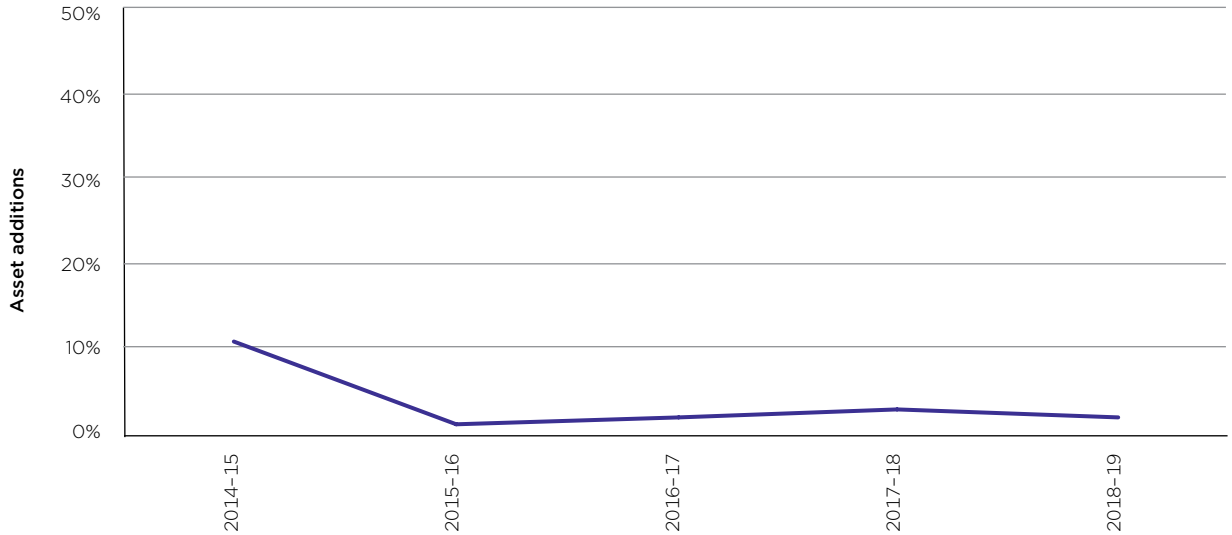
Hutchison reports that it is still considering the manner and degree of further landside investments it will undertake in future periods but at this stage planned investments for both quayside and landside operations are not substantial.

Past investments

Hutchison has invested significantly in setting up its terminal operations in Brisbane and Sydney. Hutchison has phased its quayside and landside terminal expansions over the years and has deployed more quay cranes and automatic stacking crane modules as requirements dictate.

However, since 2014–15, Hutchison has not made meaningful tangible asset investments since completing Phase 2 of the respective sites' expansion. Hutchison's Sydney and Brisbane terminals are both effectively operating well below their respective nameplate capacities, with Brisbane operating effectively as a one berth terminal. Figure 6.6 illustrates Hutchison's investments in its Brisbane and Sydney terminals in the past five years.

Figure 6.6: Additions to Hutchison's tangible asset base, 2014–15 to 2018–19



Source: ACCC's analysis Hutchison's annual additions to its opening tangible asset base.

6.4 Flinders Adelaide Container Terminal

Flinders Adelaide Container Terminal ('Flinders Adelaide') is the operator of South Australia's sole international container terminal. Flinders Adelaide does not have operations outside South Australia. Formerly a joint venture between DP World and the Flinders Port Holdings Pty Ltd ('Flinders Ports') (and trading as DP World Adelaide), the terminal was acquired in full and vertically-integrated in 2012 by Flinders Ports.[175]

Flinders Ports was formed in 2001 when the Flinders Ports consortium successfully acquired seven privatised ports from the South Australian Government, including Port Adelaide. The operating and land lease terms for the privatised ports are 99 years.

Flinders Ports is owned by five shareholders including four superannuation funds: Equipsuper, MTAA Super, State Super, Statewide Super, and Infrastructure Capital Group.

While Flinders Ports is a monopoly port operator with vertical links in a market that may in future be able to sustain competition (Adelaide container stevedoring), its undertaking with the ACCC under section 87B of the CCA provides that it will not engage in conduct that deters entry of potential competitors to Flinders Adelaide.[176]

175 Flinders Ports, Flinders Ports acquires sole ownership of the Adelaide Container Terminal, 2012, accessed 10 October 2019.

176 Flinders Ports' s.87B undertaking to the ACCC is available on our public register: https://www.accc.gov.au/public-registers/undertakings-registers/s87b-undertakings-register/flinders-ports-holdings-pty-ltd-s87b-undertaking. The undertaking aims to address competition concerns arising from the vertical integration and ensures that prospective entrants in the downstream container stevedoring market in Adelaide are not deterred by Flinders Ports.

Volumes handled

In 2018–19, Flinders Adelaide reported a 0.8 per cent increase in total lifts to 293 000 containers and a 1.6 per cent increase in TEUs handled to 420 000. Flinders Adelaide noted that poor agricultural harvests within its catchment and high domestic prices weighed on export volumes particularly for containerised grain and hay.

Over the period, Flinders Adelaide reported that it services the same number of shipping services (nine) as it did in the previous period.[177] Contracts with COSCO Group (including OOCL) incorporating ASAL and AAA services and CMA-CGM Group incorporating NEMO, AAX and PCX Services (including ANL and APL) were renewed during the period.

Revenue

Flinders Adelaide reported a total revenue increase of 6.9 per cent for the period and a 5.2 per cent increase in total revenue on a lift basis in 2018–19.

Despite a small increase in volumes, net quayside revenues fell by 1.1 per cent and by 1.8 per cent on a per lift basis. Flinders Adelaide noted that the trend is largely explained by substantial quayside lift rate concessions arising from COSCO's acquisition of OOCL in previous years and the rising proportion of empty containers relative to full containers.

Flinders Adelaide reported a substantial growth (50.0 per cent) in revenues from landside and other sources. From 1 July 2019, a $28.50 infrastructure charge began applying on all full containers and a $10.00 Weigh-in-motion charge on all full import containers to recover weighbridge investments. Flinders Adelaide said that the charges will be capped to CPI to 2020–21.[178] Storage revenues fell by 7.3 per cent due to a substantial reduction in containers dwelling at the terminal beyond the free period.

Cost

Flinders Adelaide's operating costs increased by 8.3 per cent over the year. On a per lift basis, costs increased by 7.4 per cent.

The ACCC observed that the overall cost increase is primarily due to a substantial increase in equipment costs, which rose by 39.5 per cent. Flinders Adelaide's asset register review resulted in substantial increases in reported asset depreciation levels. Furthermore, terminal input costs such as energy and fuel continued to rise and cyclical equipment maintenance programs had an inflationary impact on cost. As a result, per lift cost of deploying equipment increased by 38.4 per cent in 2018–19.

Flinders Adelaide also experienced a 13.0 per cent increase in property costs. Mostly this was due to a 23.8 per cent fixed terminal occupancy cost increase. The rent increase reflects a market rent review conducted by its parent landlord, Flinders Ports, which the ACCC understands has not been conducted for some time. Flinders Adelaide also reported a 5.7 per cent increase in lease outgoings costs from increases in applicable council rates and South Australia's Emergency Services Levy. On a lift basis, property costs rose by 12.1 per cent.

Flinders Adelaide introduced multiple labour efficiency measures in 2018–19. Notably, Flinders Adelaide introduced a new roster beginning April 2018 with:

- reduced annual/weekly salaried hours but offered additional overtime hours
- faster rotation of day, evening, and night shift cycles and a change in maximum of consecutive night shifts from seven to four.

Flinders Adelaide noted that the roster change likely had the effect of improving staff wellbeing and engagement while also realising improved labour productivity and cost efficiencies for the terminal. Indeed, while wages continued to rise, rostering efficiencies have contributed to a net reduction of

177 Flinders Adelaide Container Terminal, Flinders Adelaide Container Terminal—Liner Services Directory, accessed 10 October 2019.

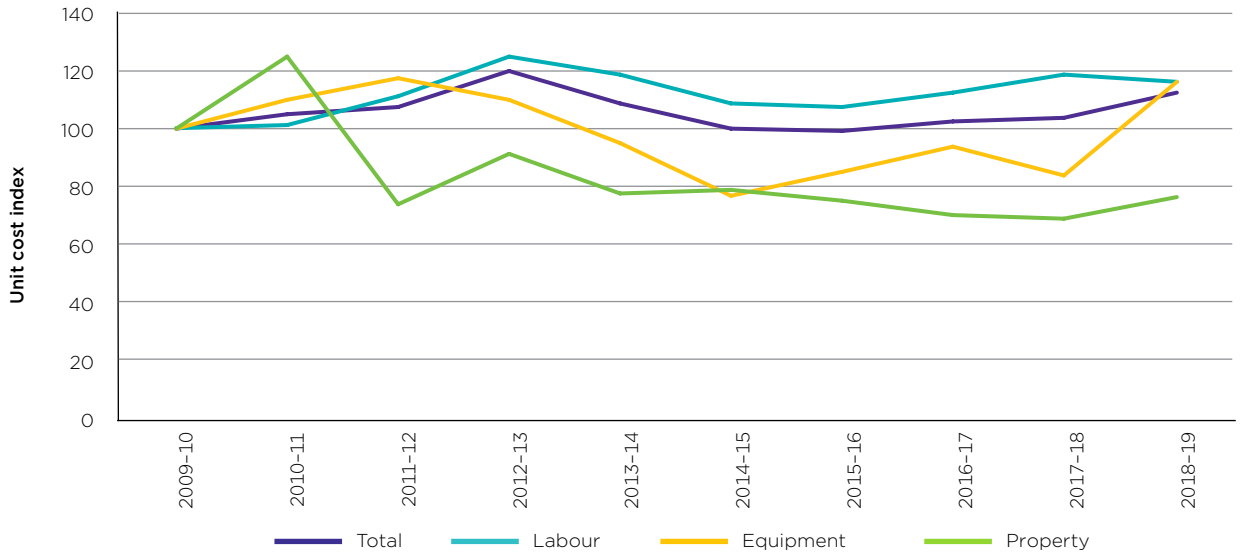
178 Flinders Adelaide Container Terminal, Changes to charges at Flinders Adelaide Container Terminal, 2018, accessed 10 October 2019.

1.7 per cent in total labour costs over the year. Flinders Adelaide's labour costs fell further on a lift basis (by –2.4 per cent), one of the strongest labour cost results in the year. Equipment and property costs per lift rose by 38.4 per cent and 12.1 per cent.

Over the past decade, Flinders Adelaide's total costs per lift have increased by 11.9 per cent. During this time, labour costs per lift have risen by 15.6 per cent and equipment costs per lift have risen by 18.1 per cent. However, current property costs per lift are 23.4 per cent lower than observed 2009–10 levels.

Figure 6.7 outlines movements in Flinders Adelaide's cost components over the decade.

Figure 6.7: Movements in Flinders Adelaide's cost components per lift, 2009–10 to 2018–19



Source: ACCC analysis of Flinders Adelaide's reported operating costs. Deflator series derived from the ABS CPI (cat. No. 6401.0, tables 1 and 2, Index Numbers; All groups CPI; Australia). Indexed to a base year of 2009–10.

Profitability

Flinders Adelaide's revenue increase was more than offset by a rise in costs, resulting in an operating profit (EBITA) reduction of 4.3 per cent.

Investments and other initiatives

Current investments

Flinders Adelaide did not invest in significant new tangible assets in 2018–19. Flinders Adelaide's expenditure on tangible assets represented 1.7 per cent of the opening value of its asset base. The expenditure reflects the acquisition cost of weighbridges and works on its digital communications network.

Current efficiency initiatives

The terminal is currently implementing various upgrades that will likely have the effect of improving productivity, efficiency, and reliability of quayside and landside processes. In particular, Flinders Adelaide is:

- optimising decking of containers to minimise unproductive and non-revenue generating straddle moves and distances travelled by straddles to and from container stacks. Less idle time waiting for straddles to deliver or receive containers would likely improve quayside service levels and improve quayside capacity by turning ships around faster
- optimising straddle routes to minimise unproductive (unladen) moves with a possible result of reducing straddle-related labour costs

- digitising previously paper-based processes relevant to hatch foreman, lashing foreman and crane driver roles to enable more seamless exchange of operational information for the relevant roles.

Flinders Adelaide also completed significant works in its intermodal rail infrastructure by installing new rail sidings and decommissioning existing sidings that have reached the end of their service lives. This development increases the effective storage area and rail handling capacity of the terminal.

Flinders Adelaide also modified landside operating processes with the aim of improving terminal landside productivity and truck driver safety. To achieve this, the terminal reconfigured existing truck lanes to be able to handle more trucks concurrently. Furthermore, the terminal introduced initiatives to reduce potential unsafe interactions between mobile heavy equipment such as straddles and pedestrians (including truck drivers).

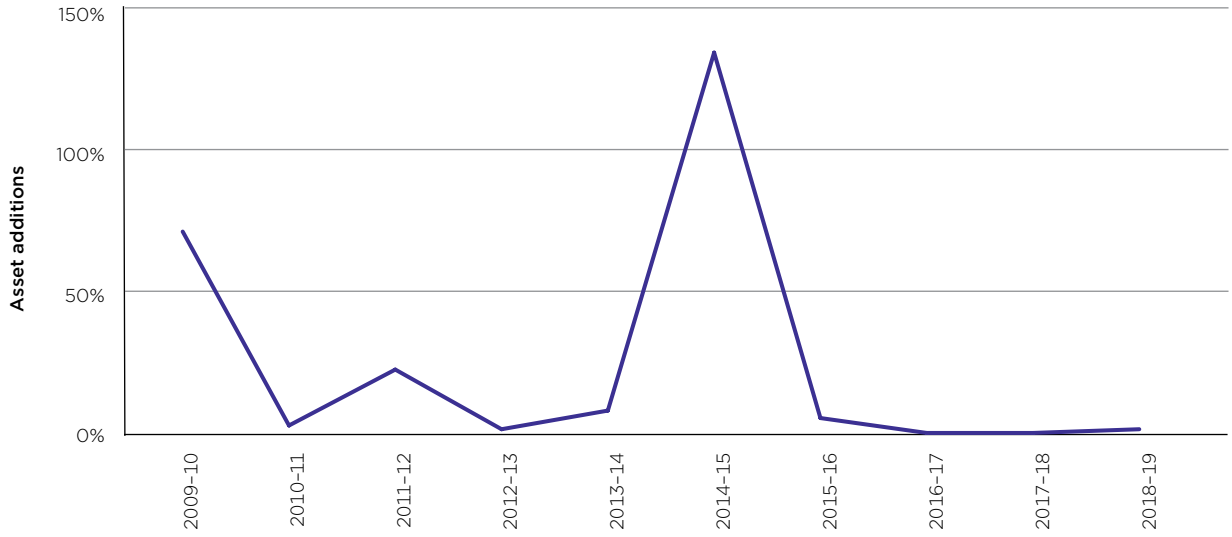
Planned investments

Flinders Adelaide said that it would acquire an additional quay crane in the near term to accommodate projected increases in terminal demand and would continue to replace existing straddles and other yard handling equipment. Flinders Adelaide is also weighing options to redevelop existing equipment maintenance and administrative facilities.

Past investments

Flinders Adelaide has made sizeable investments in the past decade. Very significant investment was capitalised in 2014–15 attributable to the procurement of several larger quay cranes, straddles and expansion of the terminal quayline by a further 240 metres. Figure 6.8 graphically illustrates Flinders Adelaide's investments over the past ten years.

Figure 6.8: Additions to Flinders Adelaide's tangible asset base, 2009–10 to 2018–19



Source: ACCC's analysis of Flinders Adelaide's annual additions to its opening tangible asset base.

6.5 Victoria International Container Terminal (VICT)

VICT is the most recent entrant in the container stevedoring industry in Australia. It began operating in 2017.

VICT presently operates at Webb Dock East at the Port of Melbourne and lays claim to operating one of the world's most advanced automated container terminal.[179] VICT is a subsidiary of the Philippines-based International Container Terminal Services Incorporated (ICTSI). ICTSI is the seventh largest container terminal operator in the world with a network spanning more than 32 terminals across 18 countries.

179 Victoria International Container Terminal, What we do, accessed 10 October 2019.

This report currently presents limited information on movements of VICT's revenues, costs and profits due to VICT's limited history of operating at its terminal.

Volumes handled

In 2018–19, VICT reported a 147.0 per cent increase in lifts to 260 000 containers and a 162.4 per cent increase on a TEU basis to 423 000 TEUs. VICT's substantial volume result is attributable to its successful tender for the A3C and CAE/A1X services' Melbourne calls for the period. Three shipping services now call at VICT, with the other service being ASAL.[180] VICT's share of the Melbourne container stevedoring market grew substantially over the period and is now at 15.1 per cent.

VICT said that it was also successful in tendering for the YoYo/Panda service during the period but the participating lines decided to suspend the service temporarily for various reasons.[181] The service has since been relaunched.[182] VICT also confirmed that the revised AAX1/Cobra service will be calling at its Melbourne terminal during the next reporting period.

Revenue

VICT reported a 154.2 per cent jump in total revenues. This growth primarily reflected its higher volumes, as revenues only rose by 2.9 per cent on a lift basis.

The 142.2 per cent rise in VICT's net quayside revenue was propelled by the terminal's success in winning the two new services during period. VICT also benefitted from sub-contracting from DP World whose Swanson Dock terminal periodically suffered from industrial relations disputes. However, VICT's net quayside revenue on a lift basis fell by 8.2 per cent in 2018–19.

Similar to other container stevedores, VICT's revenue from landside and other sources substantially increased (by 239.7 per cent) in 2018–19. This reflects the fuller effect of its $48.00[183] per laden container infrastructure charge introduced in March 2018 and the partial effect of a subsequent increase to $85.00 per laden container beginning March 2019. An increase in the number of containers dwelling at the terminal beyond the general free storage period also contributed to a rise in storage revenues.

Cost

VICT reported a 23.6 per cent rise in total cost during the period, however this was expected due to an increase in operating activity at the terminal. Reflecting the effect of its automated operations and limited variable costs, VICT reported a 49.9 per cent fall in costs per lift.

VICT also incurred higher labour and equipment costs during the period to service the increasing number of vessel calls. Labour and equipment costs rose by 27.2 per cent and 32.0 per cent respectively. However, these fell by 48.5 per cent and 46.5 per cent respectively on a lift basis.

Total property costs rose by 18.5 per cent in large part due to the inclusion of the Phase 2 lease costs from January 2018 and an increase in lease outgoing costs.

Profitability

VICT reported a 42.0 per cent reduction in operating losses in 2018–19.

180 Victoria International Container Terminal, Current Shipping Services and Routes, accessed 10 October 2019.

181 Mediterranean Shipping Company, MSC announces a temporary suspension of its Panda service, 2019, accessed October 2019.

182 Maersk Line, The YoYo Service Relaunch, 2019, accessed 10 October 2019.

183 We note that the rate increase applicable to full import containers that applied at the time is effectively $38 given that VICT absorbed the $10 chain of responsibility fee that was previously separately charged on full imports.

Investments and other initiatives

Current and planned investments

VICT did not capitalise significant new tangible assets in 2018–19, reflecting very significant recent start-up expenditure in terminal capacity. VICT similarly does not yet envisage embarking on further large expenditure programs as it has existing untapped capacity and its equipment will not require replacing for some time.

Current efficiency initiatives

On the quayside, VICT focussed on improving environmental and safety aspects of its Melbourne terminal's operations. VICT replaced most of the terminal's quay crane lights to LED to improve visibility to crane operators and reduce external light pollution levels.

VICT advised that it also implemented various efficiency and safety measures on its landside operations. In particular the terminal:

- relocated light curtains and control boxes of the 50 landside exchange lanes to allow the terminal to accept 32.5 metre A-Double truck and trailer combinations. While the terminal was not originally designed to accommodate trucks of this length, VICT considered it was necessary to make these operating adjustments to service changing landside customer requirements
- oriented external truck drivers of the terminal's landside handling processes to ensure truck drivers are following terminal processes and ensure an efficient receival or delivery of containers
- installed new traffic lights in the Automatic Truck Handling areas to assist drivers in safely navigating the exchange area and also to minimise damage to terminal and trucking equipment
- repainted the truck holding area to allow for designated walkways and reconfigured terminal lanes to ensure pedestrians can safely pass through the terminal even at peak periods.

Appendix A: ACCC monitoring methodology

This appendix explains the ACCC's monitoring methodology and outlines the approach in assessing the profitability of stevedoring terminal operations in Australia.

A.1. Description of methodology

The ACCC's role, set out in the Ministerial direction, is to monitor prices, costs and profits at container terminals operating in Adelaide, Brisbane, Burnie, Fremantle, Melbourne and Sydney. During the 2018–19 reporting period, there was no container terminal operating in Burnie so Burnie was excluded from the report.

Data is provided by each of the container stevedores in response to a request from the ACCC at the conclusion of the financial year. We appreciate the cooperation of the stevedores in responding to these requests, which are made on a voluntary rather than mandatory basis.

Much of the data provided to the ACCC is commercially sensitive. For this reason, the data is typically presented in the monitoring report for the industry as a whole, rather than broken down by stevedore. While useful, the aggregated nature of the data presented in the reports is currently masking very different financial outcomes between the established stevedores and the recent market entrants. Other data provided by the stevedores is used for the ACCC's internal analysis only and does not get presented in the monitoring report.

The data provided by the stevedores consists of container volumes, revenues, costs, earnings (EBITA) and profit. The stevedores will also describe key investments made during the year, as well as those planned for the future. The ACCC does not collect data on actual prices charged for stevedoring services as these are privately negotiated between stevedores and users.

The ACCC calculates revenues, costs and margins on a per unit basis, with unit revenues acting as a proxy for price. The standard unit is a lift, which is either a container being loaded off the ship and on to the dock or vice versa. Stevedoring charges are typically calculated per lift and therefore this is a close proxy for the prices charged by the stevedores.

Data provided by the stevedores is split by whether it relates to stevedoring or other terminal activities. Stevedoring revenue, which makes up the largest proportion of a stevedore's total revenue, is defined as the revenue attributable to the loading and unloading of cargo. Other revenues may include those relating to break-bulk work (e.g. non-containerised cargo such as bags, crates and barrels), storing and maintaining containers, and fees from transport operators using the stevedores' Vehicle Booking System and from infrastructure charges.

Financial data is adjusted for inflation to allow for meaningful comparisons between years. The figures in the 2018–19 monitoring report were adjusted for inflation using the same methodology as the 2017–18 report. The process that is used to adjust for inflation is as follows:

- figures were adjusted using the ABS Consumer Price Index series (base year = 2019)
- figures from past years were adjusted upwards in order to compare with the actual data for 2018–19.

The stevedoring monitoring report also provides information on the productivity of the stevedores and other operational performance such as truck turnaround times. This information is kindly provided by the Bureau of Infrastructure, Transport and Regional Economics (BITRE) in advance of its publication in its *Waterline* series.

A.2. Industry consultation

The ACCC supplements its data collection activities by meeting directly with relevant stakeholders about the freight supply chain.

Each year, ACCC staff will meet directly with the stevedores as well as various port operators, shipping lines, transport companies and freight supply chain industry associations.

The ACCC's analysis and commentary in the container stevedoring monitoring report is also informed by work it does as part of investigations into possible breaches of the competition provisions within Part IV of the *Competition and Consumer Act 2010*.

A.3. Measuring industry profitability

Earnings before interest, taxation and amortisation (EBITA)

There are a range of measures that can be used to assess a company's profitability. The ACCC commonly uses earnings before interest, taxation and amortisation (EBITA) in its monitoring reports of operating profitability. That is, it measures the earnings that the firm makes in its normal course of business, ignoring financial costs and the yearly write-off of long-term intangible assets.

EBITA is a useful measure for comparing companies because it excludes accounting costs that can vary greatly between companies due to factors other than operating performance. Interest payments can vary according to the choice of financing arrangements. Taxation can vary by political jurisdictions or different tax minimisation techniques. Amortisation can vary depending upon the subjective value placed on intangible assets such as goodwill, or because of different takeover histories.

Unlike other measures of operating profitability, EBITA includes the costs associated with the depreciation of tangible assets. This is important for infrastructure-based industries for which investment in facilities will represent a sizable proportion of overall costs.

Operating profit, profit margins and return on assets

The container stevedoring monitoring report presents operating profit in a number of different ways. The purpose of each indicator is to provide some context for the scale of the industry. Very high performance against these indicators may suggest that the level of competition within the industry is not sufficient to constrain the stevedores from setting high prices.

These indicators are:

- operating profit—revenue less costs per lift
- profit margins—EBITA as a percentage of real revenue
- return on assets—EBITA as a percentage of average tangible assets.

The use of return on assets as a measure of profitability creates a few challenges. First, a company's assets can include a sizeable value for intangible assets. For stevedoring, intangible assets include goodwill and berth licensing agreements. However, the value attributed to intangibles may reflect an expectation, at the time of purchase or acquisition of assets for a business, to earn economic rents that may obscure changes in the profitability of providing services. For this reason the ACCC excludes intangible assets from the asset base when assessing performance.

The ACCC's approach of excluding intangible assets will create a difference between the stevedores' statutory reports and the ACCC's stevedoring monitoring reports. However, this is not unusual where price oversight of infrastructure is involved and is consistent with the broader ACCC approach with other industries (e.g. airport services).

The second challenge is that the return on assets measure can be affected by changes in asset values arising from asset revaluations, transfers, and sales. Asset valuation methods differ between businesses, which raise comparability issues. They may also change over time, which would impact time series

analyses. The ACCC has not attempted to evaluate the suitability of stevedores' asset valuations since prices are not regulated. However, they are required to report asset values on a depreciated historical cost basis over time so that the ACCC can assess trends in profitability.

Finally there is the challenge that EBITA does not fully identify whether the stevedores are earning excessive economic profits as a result of market power. The key issue is that stevedores will carry out a lot of upfront investments on capital that will have a significant life span, so a single year's financial returns may not capture the full cost of these investments. To evaluate the returns of the stevedores, a method such as the internal rate of return should be used. Unfortunately the ACCC does not possess the necessary information to use this approach. Evaluating profits using EBITA is the best option that the ACCC has available to it.

Appendix B: Part VIIA, Competition and Consumer Act 2010

s. 95ZE

Directions to monitor prices, costs and profits of an industry

(1) The Minister may give the Commission a written direction:

(a) to monitor prices, costs and profits relating to the supply of goods and services by persons in a specified industry; and

(b) to give the Minister a report on the monitoring at a specified time or at specified intervals within a specified period.

Commercial confidentiality

(2) The Commission must, in preparing such a report, have regard to the need for commercial confidentiality.

Public inspection

(3) The Commission must also make copies of the report available for public inspection as soon as practicable after it gives the Minister the report.

s. 95ZG

Exceptions to price monitoring

(1) The Minister must not direct the Commission under this Division to monitor prices, costs and profits relating to a supply of goods or services of a particular description that is an exempt supply in relation to goods or services of that description.

(2) The Minister must not direct the Commission under this Division to monitor prices,costs and profits of a State or Territory authority that supplies goods or services unless the State or Territory concerned has agreed to the direction being given.

s. 95G(7)

The Commission's functions under this Part

General

(7) In exercising its powers and performing its functions under this Part, the Commission must, subject to any directions given under section 95ZH, have particular regard to the following:

(a) the need to maintain investment and employment, including the influence of profitability on investment and employment;

(b) the need to discourage a person who is in a position to substantially influence a market for goods or services from taking advantage of that power in setting prices;

(c) the need to discourage cost increases arising from increases in wages and changes in conditions of employment inconsistent with principles established by relevant industrial tribunals.

Appendix C: Ministerial direction

COMMONWEALTH OF AUSTRALIA

Prices Surveillance Act 1983

DIRECTION NO 17

(1) I, Peter Costello, Treasurer, pursuant to section 27A of the Prices Surveillance Act 1983, hereby direct the Australian Competition and Consumer Commission to undertake monitoring of prices, costs and profits relating to the supply of services by a container terminal operator company in ports at the following locations:

(a) Adelaide;
(b) Brisbane;
(c) Burnie;
(d) Fremantle
(e) Melbourne; and
(f) Sydney.

(2) In this direction, 'container terminal operator company' means a provider of container stevedoring services in ports at the locations listed in paragraph (1).

(3) The ACCC is to report to me on its monitoring activities referred to in paragraph (1) within four months after the end of each financial year.

PETER COSTELLO

January 1999

Federal Register of Legislative Instruments F2008B00402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