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Commission

Container stevedoring

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Contents

Glossary	v
Summary	vi
1 Introduction.....	1
1.1 Background	1
1.2 Description of methodology.....	2
1.3 Report outline.....	3
2 Characteristics of the stevedoring industry	4
2.1 Introduction	4
2.2 Supply of stevedoring services	4
2.2.1 Structural arrangements	4
2.2.2 Size and characteristics of market.....	5
2.2.3 Expansion of ancillary services	6
2.2.4 Economies of scale	6
2.2.5 Barriers to entry and exit	6
2.3 Demand for stevedoring services	7
2.3.1 20/40-foot containers	8
2.3.2 Potential countervailing power—threat of moving business elsewhere	8
2.3.3 Sensitivity to prices and quality of service	8
2.4 Conclusion	9
3 Monitoring results	10
3.1 Introduction	10
3.2 Trends in containerised throughput	10
3.3 Average revenue, costs and margins	11
3.3.1 Sources of revenue	13
3.3.2 Effects of trends in container usage on average revenue.....	16
3.3.3 Cost components	17
3.4 Rates of return	19
3.5 Quality of service	20
4 Key issues from 2003–04 monitoring program	21
4.1 Capacity.....	21
4.2 Productivity improvements	25
5 Company specific data	28
5.1 Introduction	28
5.2 Patrick	28
5.2.1 Revenue and margins	28
5.2.2 Changes in cost components	29
5.2.3 Patrick summary.....	29
5.3 P&O Ports	30
5.3.1 P&O Ports' revenues and margins	30
5.3.2 Changes in key cost components	30
5.3.3 P&O conclusion	31
5.4 CSX World Terminals Pty Ltd	31
6 Findings and conclusions	32

Appendix A: Ministerial directive34

Appendix B: Part VIIA, Trade Practices Act 1974.....35

Appendix C: Selected industry data.....36

Appendix D: Company trends in cost components37

ACCC offices40

Glossary

ACCC	Australian Competition and Consumer Commission
BTRE	Bureau of Transport and Regional Economics
CSX	CSX World Terminals Pty Ltd
DTRS	Department of Transport and Regional Services
EBA	enterprise bargaining agreement
LLDCN	Lloyd's List Daily Commercial News
MIFCO	Maritime Industry Finance Company
MUA	Maritime Union of Australia
P&O	P&O Ports Ltd
Patrick	Patrick the Australian Stevedore
PC	Productivity Commission
PSA	Prices Surveillance Act
TEU	20-foot equivalent unit

Summary

The key findings of this report are:

- Productivity growth continued its upward trend in 2003–04.
- Volumes in terms of TEUs increased at all major ports and by 9 per cent overall. Since 1998–99 volumes have grown at an average annual rate of about 10 per cent.
- Unit total revenues for the industry as a whole increased again in 2003–04 following the rise recorded in 2002–03.
- Unit stevedoring revenues on both 20 and 40-foot containers also increased, indicating higher charges for stevedoring services.
- Unit revenue from ‘other’ services, that is, from services other than ‘lifting’ containers, increased in 2003–04. The main source of higher ‘other’ revenues was from the provision of container storage services.
- For the first time since monitoring began in 1998–99, unit costs rose in 2003–04 following several years of decline, despite growth in volumes. The main contributor to this increase was higher labour costs which more than offset falls in the other cost categories.
- Unit margins and rates of return continued to rise in 2003–04.

It is likely that higher unit costs in 2003–04 may indicate emerging capacity constraints after several years of strong growth in volumes. The ACCC considers that recent decisions taken by stevedores to relieve congestion and invest in new equipment as well as decisions taken by port authorities to increase port capacity should result in expanded stevedoring capacity.

In this report the ACCC has again considered factors that may affect competition in the industry and has identified some that may affect contestability. However, the ACCC cannot form definite views on the basis of available evidence. To do so it would need to explore competition issues related to the analysis of revenues, costs and margins at a much deeper level than is possible under a monitoring program.

1 Introduction

This is the ACCC's sixth container stevedoring monitoring report. It presents the results of the ACCC's monitoring of the industry for the 12 months from July 2003 to June 2004.

1.1 Background

On 20 January 1999 the Federal Treasurer directed the Australian Competition and Consumer Commission under s. 27A of the *Prices Surveillance Act 1983* to monitor prices, costs and profits of container terminal operator companies at the ports of Adelaide, Brisbane, Burnie, Fremantle, Melbourne and Sydney. A copy of the ministerial instrument is in appendix A. The Prices Surveillance Act (PSA) has since been repealed, with the prices surveillance provisions now contained in a new Part VIIA of the *Trade Practices Act 1974*, which became operational in June 2004. The Federal Treasurer's direction under the former s. 27A of the PSA is now deemed as a direction under the new s. 95ZF of the Trade Practices Act.¹ Previously, the Prices Surveillance Authority monitored stevedoring prices and costs from March 1991 to November 1995.

The ACCC's monitoring program provides information to the government and wider community about the progress of reform in Australia's stevedoring industry. This report assesses issues of significance to key stakeholders including the payment of the stevedoring levy by the stevedores.²

As part of its waterfront reform strategy, the government provided funds to ensure that all stevedoring employees made redundant as part of the reform process received full redundancy entitlements. A levy on the loading and unloading of cargo has been applied to repay funds made available through a wholly Australian Government-owned company, the Maritime Industry Finance Company (MIFCO), which was set up on 8 April 1998. Patrick and P&O Ports agreed to absorb the full cost of the levy.

The levy came into effect in February 1999 and is paid at a rate of \$12 per container and \$6 per car, imported and exported. The funds from the levy are remitted monthly to the Department of Transport and Regional Services, the first payment having been made on 14 March 1999. The levy is expected to continue for some years.

¹ See s. 51 of the *Trade Practices Legislation Amendment Act 2003*.

² For the Treasurer's press release of 22 January 1999 and discussion of the ACCC's role, see Rural and Regional Affairs and Transport Legislative Committee: Stevedoring Levy (Collection) Amendment Bill, 1999, *Hansard*, 27 August 1999, pp. 42–5.

1.2 Description of methodology

The ACCC's brief as set out in the ministerial directive (see appendix A) is to monitor data on prices, costs and profits at container terminals operated in Adelaide, Brisbane, Burnie, Melbourne, Perth and Sydney. The ACCC does not collect data on actual prices charged for stevedoring services as these are negotiated between stevedores and users. Instead, unit revenue rates are used as indicators of stevedoring charges.

Individual company data has been aggregated to obtain national average revenue, cost and margins, expressed on a per unit basis. Units are expressed in terms of the size of the container boxes. There are two container sizes, 20-foot (one 20-foot equivalent unit, or one TEU) and 40-foot (two TEUs). The latter are growing as a proportion of total containers. Average revenue measured in terms of TEUs is lower than that measured in terms of containers.

Stevedoring charges are normally calculated per lift and are not generally differentiated in terms of container size. This means that the per TEU rate will typically be lower for 40-foot containers than for 20-foot containers. A trend to 40-foot containers may contribute to a lowering of broad measures of average stevedoring revenue expressed per TEU. This means the expected mix of 20-foot and 40-foot containers can be a significant factor for stevedoring companies when they are determining the actual 'per lift' stevedoring rate to charge a shipping line.

To assess the impact of the increased use of 40-foot containers on average revenue, the stevedores have given the ACCC information to enable separate calculations of revenue per TEU on both 20-foot and 40-foot containers.

The data on revenue and costs has been submitted in two forms: for total terminal activities and for stevedoring activities only. Stevedoring revenue is defined as the revenue attributable to the loading and unloading of cargo. Most of the revenue generated by container terminals comes from stevedoring services, but each terminal also conducts some break-bulk work and provides other ancillary services related to the lifting of containers, such as storage and maintenance of containers.

The former Prices Surveillance Authority conducted the initial monitoring work using total revenue and cost data (including break-bulk revenue and costs) to derive national average revenue and cost indicators. To establish long-term trends, this report presents the results of the ACCC's recent monitoring program, as well as the Prices Surveillance Authority's monitoring program and data from its earlier public inquiry. The ACCC has derived its data on average revenue and costs from the total revenue and expenses of the major container terminals in Australia, in a similar way to those in the Authority's reports.

The container terminals included in the monitoring program are in Brisbane, Burnie, Adelaide, Sydney, Fremantle and Melbourne.

These terminals are:

- P&O Ports and Patrick at Swanson Dock, Melbourne
- P&O Ports and Patrick at Fisherman Island, Brisbane
- Patrick and P&O Ports at Port Botany, Sydney
- P&O Ports and Patrick, Fremantle
- CSX, Adelaide
- Patrick, Burnie.

Some terminals were not included in the analysis because a substantial proportion of their revenue comes from non-container cargoes:

- Patrick's terminals at Darling Harbour in Sydney, and Webb Dock in Melbourne
- P&O Ports White Bay, Sydney.

In addition to using quantitative data provided by stevedores, the ACCC has also sought other information through informal contacts with stevedoring companies. Where relevant, this information has been taken into account in assessing the results of the monitoring program.

1.3 Report outline

Section 2 of the report describes the key supply and demand characteristics of the stevedoring industry. Section 3 sets out the main findings of the monitoring program while keys issues that arise from the 2003–04 monitoring program are discussed in section 4. Section 5 presents company specific data about each stevedore. Finally, overall conclusions are drawn in section 6.

2 Characteristics of the stevedoring industry

2.1 Introduction

This section describes the salient supply and demand characteristics of the stevedoring industry in Australia. It presents a snapshot of the key features of the stevedoring industry, including updated data on volumes for 2003–04, and generally provides context to the results of the monitoring program found in the following section. Readers who are familiar with the ACCC’s presentation of the characteristics of the stevedoring industry may choose to skip this section and proceed to section 3 for an analysis of the results of the monitoring program for 2003–04.

2.2 Supply of stevedoring services

Providing stevedoring services entails lifting container boxes onto and off ships. Increasingly, however, stevedoring companies are earning revenue from other services such as storage, maintenance and repositioning of containers. They are also providing services that facilitate the movement of containers from the wharves to road and rail transport links.

2.2.1 Structural arrangements

In Australia, stevedoring services are provided by specialist firms that own the container handling equipment but lease berth space from the relevant port authorities. Typically, the lease arrangements that underpin access to berth space are exclusive and long-term, ranging from 20 to 40 years.³ These arrangements may affect contestability in the industry.

Stevedoring services can also be provided under other types of arrangements. In some overseas ports⁴, port authorities also own the container handling equipment (cranes/straddles) but sub-contract the stevedoring function by providing access to common-user terminals to third-party stevedores. Other types of arrangements include total integration between port ownership and stevedoring services.

Two of the ports covered by the monitoring program, Adelaide and Burnie, are supplied by sole stevedores—CSX in Adelaide and Patrick in Burnie. At all other ports in the monitoring program, a duopoly consisting of Patrick and P&O supply stevedoring services. Market shares held by these two companies vary over time, but generally seem to fluctuate between 45 and 55 per cent at each port. P&O is both a provider of container handling services and, through P&O Nedlloyd, a major user.

³ Productivity Commission, *International Benchmarking of Container Stevedoring*, July 2003, p. 141.

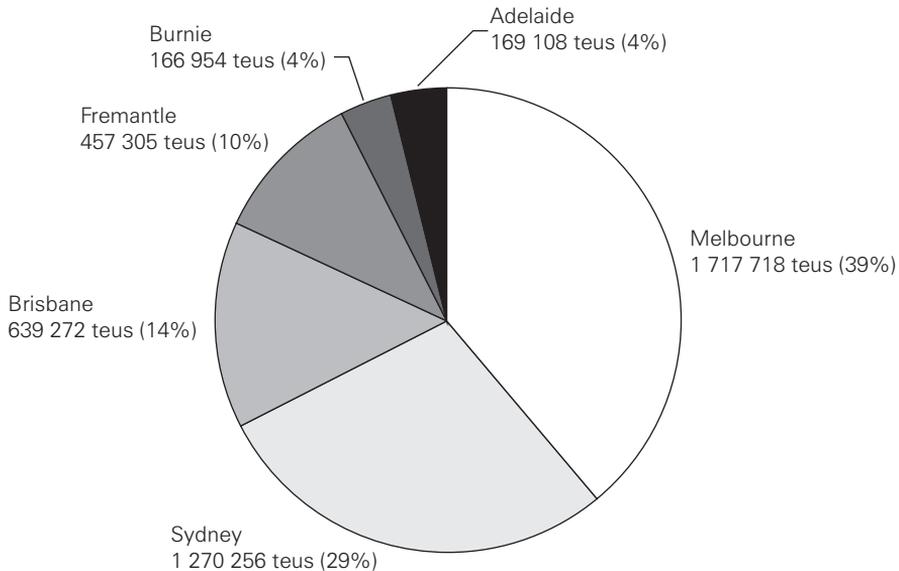
⁴ notably, Auckland, New Zealand.

2.2.2 Size and characteristics of market

According to data published by the Bureau of Transport and Regional Economics (BTRE), total throughput at Australian ports in 2003–04 was about 4.4 million TEUs⁵ which is low by international standards and reflects the ‘thinness’ of Australian shipping trades. Another key characteristic of Australia’s shipping trade is that there is no single point of entry for ships, and container throughput is shared across several ports separated by long distances.

Figure 2.1 shows details of volumes handled at Australia’s major ports.

Figure 2.1 Container throughput volumes and shares, by port—2003–04



Source: BTRE, *Waterline*, October 2004, Burnie Port Corporation

Note: Data in BTRE publication, *Waterline*, includes international and domestic cargo.

Melbourne is Australia’s largest port with container throughput of 1.7 million TEUs in the year to June 2004. By comparison, volumes in Singapore, the world’s largest container port, were 18.1 million TEUs in 2003.⁶ Australia’s second largest port is Sydney which processed 1.3 million TEUs in 2003–04. The remaining tonnages handled in Australia in 2003–04 were shared among the ports of Brisbane (640 000 TEUs), Fremantle (457 000 TEUs), Adelaide (169 000 TEUs) and Burnie (167 000 TEUs).

⁵ BTRE, *Waterline*, October 2004, table 10, p. 9.

⁶ PSA International Pty Ltd, *Annual Report 2003*.

2.2.3 Expansion of ancillary services

The role of stevedoring in the overall transport logistics chain appears to be changing as stevedores are increasingly expanding their operations in related services. There seem to be two main areas where change is manifesting. One is in the provision of services which are ancillary to the stevedoring function. These are services that facilitate a more effective interface with land transport by allowing shippers to move containers more quickly and efficiently from the wharf into their preferred land transport link.

Another area of change is in bringing about a more effective integration of stevedoring with road and rail transport and creating a more seamless transport logistics chain. A key industry player has been Patrick which has a joint interest with Toll Holdings in the interstate rail freight provider, Pacific National.

The effect of these changes on stevedoring revenues and costs will be discussed later in this report.

2.2.4 Economies of scale

It is generally accepted that there are economies of scale in stevedoring. Efficiencies are available to a large operator, in terms of management and coordination of workforce and equipment, which may not be available to stevedores operating on a small scale. Economies of scale can be a barrier to entry if, to operate efficiently, a new entrant must capture a large share of the market.

It is difficult to quantify the number of operators that would be able to operate efficiently at Australia's ports given their various throughput levels. However, it seems clear that the thinness of Australia's shipping trade and its multi-port characteristic are likely to limit the number of stevedoring companies that could sustain economically viable operations.

2.2.5 Barriers to entry and exit

Entry and exit costs are important determinants of the degree of contestability in an industry. The higher entry and exit costs are, the lower the potential for new entry to act as a constraint on the behaviour of incumbents. If entry barriers and exit costs are low then the ability of incumbents, even monopolists, to sustainably charge high prices and earn above normal profits is limited.

The Productivity Commission considered evidence suggesting that the cost of establishing a presence in the industry may not represent a significant obstacle to entry.⁷ For example, while cranes are reported to cost about \$10 million each, the existence of a secondary market means that not all of the cost of a new crane represents a sunk cost that would be forfeited on exit.⁸

⁷ Productivity Commission, *Work Arrangements in Container Stevedoring*, 1998, p. 140.

⁸ *ibid.*

However, other features of the industry may make entry difficult. For example, if economies of scale are significant, then a new entrant would have to supply a large share of the market to operate efficiently. Even if the market is growing, this would mean that a large volume of business would need to be won from incumbents. This task would not be easy and may deter potential entrants.

As noted, the exclusive and long-term nature of the lease arrangements between stevedores and port authorities can be a potential barrier to a new entrant. The ACCC notes that common-user terminals are often used in overseas ports. Under these arrangements, the supply of stevedoring services is not limited to a certain number of stevedores; instead, any number of stevedores can operate under leasing terms of varying lengths.

In Australia, no single port acts as the primary destination for ships, as is often the case in other countries. The Australian shipping trade is shared across several ports. Currently, the two major stevedoring companies offer a national service, which is likely to offer advantages to users. For example, it is likely to reduce transaction costs by allowing a shipping line to deal with a single provider of stevedoring services rather than a different one at each port. Also, a national provider may offer shipping lines incentives, in terms of volume discounts, which would not be available from single-port operators. As competition between ports may be limited by the large distances between them, a potential new entrant might have to establish a presence in several ports to compete with the incumbents' national service. This is also likely to discourage entry.

While the stevedoring industry is considered capital intensive, labour costs still remain the largest component of Australian stevedores' total cost base. In 2003–04 they accounted for 53 per cent of total costs while equipment costs were around 18 per cent.⁹ The introduction of greater flexibility into workplace arrangements in the 1990s increased the ability of stevedores to adjust to fluctuations in demand. This could be expected to lower entry and exit costs and therefore promote contestability in the industry.

The ACCC has not formed a view about the height of barriers to entry in the stevedoring industry. It notes, however, that if entry barriers are reasonably high there may be concerns about the ability of potential competition from new entry to moderate the behaviour of the incumbents.

2.3 Demand for stevedoring services

The demand for stevedoring services is a derived demand. The absolute size of the market is determined by the volume of shipping transport which depends, in turn, on general economic activity and competition from other forms of transport such as air, road and rail. Stevedores are not able to greatly influence the overall size of the shipping transport market.

⁹ The other key cost categories are property costs (8%), levy payments (6%) and other costs (16%). In 1998–99 the relative shares held by labour and equipment costs were 54 per cent and 18 per cent respectively. The change in the capital/labour ratio is considered further in section 3.3.3.

2.3.1 20/40-foot containers

The ACCC has been collecting product differentiated data for two years. The data highlights that the use of 40-foot containers has grown.¹⁰ It also suggests that stevedores charge less for a 40-foot container on a per unit (TEU) basis than for 20-foot containers. Shippers (importers/exporters) appear to be responding to the relatively less expensive per unit charges and increasing relative demand for 40-foot containers. On average, this movement towards 40-foot containers has facilitated lower per unit prices for shippers.

The impact of 40-foot containers on average costs is not clear. While the costs of lifting 20 and 40-foot containers may be reasonably similar, the ACCC understands from market inquiries that higher costs may be involved in storing and moving 40-foot containers. According to one stevedore, the difference in cost can be enough to justify differential pricing when 40-foot containers constitute a substantial proportion of a customer's business.

2.3.2 Potential countervailing power—threat of moving business elsewhere

Because a small number of shipping lines service Australian ports, each can represent a major proportion of throughput at a given port. This means that the loss of a particular line's business could have major consequences for a stevedore. It might be argued, therefore, that by threatening to shift their business, shipping lines can exert countervailing power against stevedores.

However, the ACCC understands that this countervailing power may be constrained in the short term as the stevedores have limited capacity to service significantly higher levels of business (especially during periods of peak congestion). While each stevedore appears to have some spare capacity, it does not seem to be enough to service a much larger proportion of the market.

As noted, inter-port competition may be affected by the large distances between Australia's ports. A shipping line's ability to switch to a stevedore in a different port will be influenced by the additional costs of steaming as well as of transporting the cargo to its ultimate destination. These costs reduce the scope for shipping lines to switch easily to different ports and thus reduce their potential countervailing power. Also, a shipping line's choice of stevedore is often constrained because the same two stevedores generally operate in each of the relevant ports.

2.3.3 Sensitivity to prices and quality of service

The extent of demand sensitivity to prices and service levels can have an important bearing on the competitive discipline faced by firms. Generally, the more sensitive consumers are to prices, the greater is a firm's potential loss of revenue in response to a price rise. Firms which face a relatively price sensitive demand are likely to have less discretion in setting prices.

¹⁰ The anecdotal evidence from market inquiries suggests that this shifting preference towards 40-foot containers has been taking place for many years.

The evidence on price sensitivity in the stevedoring industry is mixed. The ACCC understands that shipping lines are known to switch stevedores, suggesting a certain sensitivity to prices charged by stevedores.¹¹ On the other hand, it appears that shipping lines may be more sensitive to the quality of service than its cost.¹² Vessels are sensitive to the costs of waiting idly at a port. A stevedore's ability to provide efficient and reliable services within specified 'time windows', minimising 'waiting' costs is important in facilitating faster transit times for shipping lines.

2.4 Conclusion

The existence of monopoly or duopoly suppliers immediately raises questions about the extent of competitive pressures within the markets. However, on the basis of the available evidence the ACCC cannot draw definite conclusions about impediments to competition in the supply of stevedoring services. For example, the height of barriers to entry or exit is crucial in determining whether incumbents are constrained by the threat of potential competition. The evidence available to the ACCC is mixed but does raise some concerns about the contestability of the market.

¹¹ See Productivity Commission, *Work Arrangements in Container Stevedoring*, 1998, p. 139.

¹² Bureau of Industry Economics, 'International Performance Indicators: Coastal Shipping, 1995', quoted in Productivity Commission, *Work Arrangements in Container Stevedoring*, 1998, p. 29.

3 Monitoring results

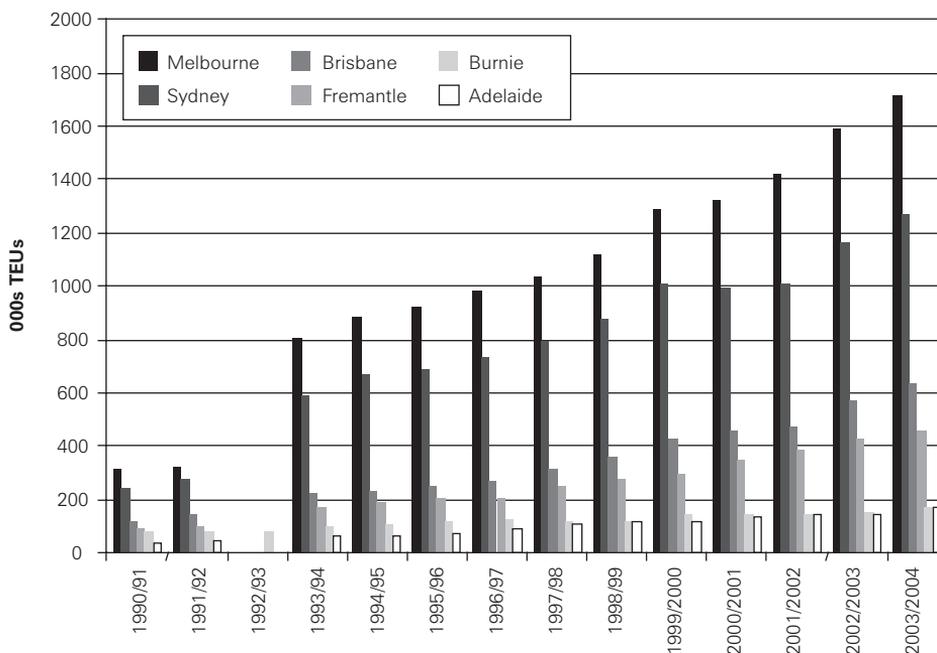
3.1 Introduction

This section presents the results of the ACCC’s monitoring program based on information provided by stevedoring companies on average revenues, costs and margins. Data is presented on an aggregated basis for stevedores operating at Australia’s major ports.¹³

3.2 Trends in containerised throughput

As noted, total containerised trade throughput was 4.4 million TEUs for the 12 months to June 2004. This is 8.9 per cent greater than total traffic for 2002–03. Figure 3.1 shows trends in total containerised throughput.

Figure 3.1 Container throughput at designated ports—1991 to 2004



Source: BTRE, *Waterline*, October 2004, Burnie Port Corporation

Note: Data in BTRE publication, *Waterline*, includes international and domestic cargo.

¹³ That is, all major mainland ports of Brisbane, Sydney, Melbourne, Adelaide, Fremantle plus the port of Burnie.

The major points to note about trends in throughput in Figure 3.1 include:

- Volumes at Australia's major ports have grown strongly over the last few years. Annual tonnages have increased from 2.4 million TEUs in 1998–99¹⁴ to 4.4 million TEUs in 2003–04 at an average compound growth rate of about 12 per cent per year.
- The largest increases in containerised throughput in 2003–04 occurred in the ports of Adelaide (+14 per cent), Brisbane (+12.1 per cent) and Sydney (+9.5 per cent).
- Annual growth rates for most ports (Brisbane, Melbourne, Sydney and Fremantle) slowed in 2003–04 when compared to the previous financial year. For instance, the growth rate in containerised throughput for the port of Melbourne was 7.7 per cent in 2003–04 compared to 12.2 per cent in 2002–03.
- By contrast, after increasing by only 2.1 per cent in 2002–03, containerised throughput in the port of Adelaide rose by 14 per cent in 2003–04 reaching 169 000 TEUs.
- The port of Melbourne remained Australia's busiest port, processing 1.72 million TEUs during 2003–04, while the port of Sydney handled approximately 1.3 million.

3.3 Average revenue, costs and margins

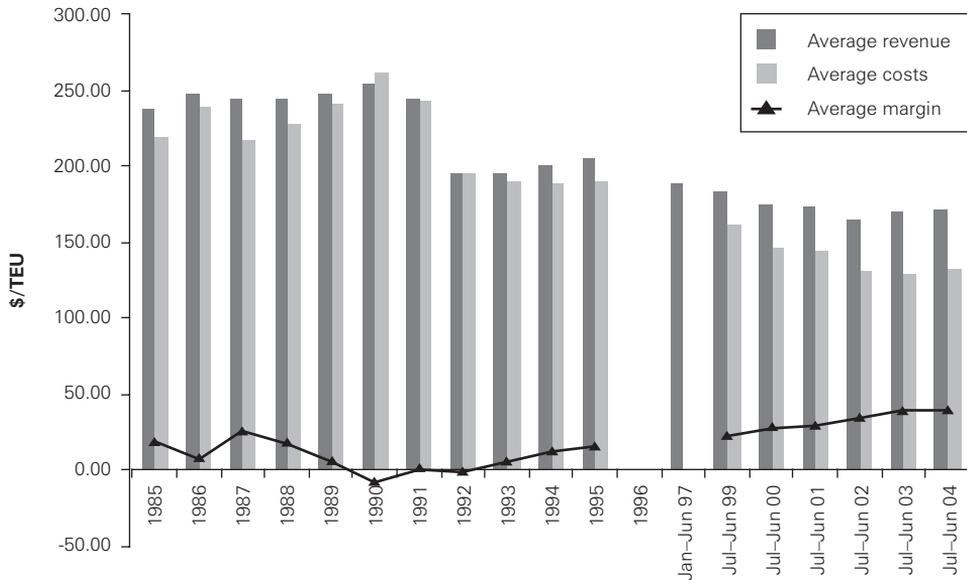
The ACCC does not collect information on actual prices charged for stevedoring services as these are subject to negotiation between shipping lines and stevedores. Instead, it uses unit revenue as an indicator of average prices charged across a stevedore's entire business. Unit revenue is total revenue expressed per TEU. Generally, reductions in unit revenue imply lower prices for services.

Unit revenues have declined considerably since 1990, as costs have fallen because of substantial labour force reforms, improvements in other work place arrangements and investment in new technologies. As unit costs have declined proportionately more than unit revenues, margins have been on a steady rise since 1990.

Detailed data on unit revenues, costs and margins are presented in table 1 in appendix C. Figure 3.2 below illustrates trends in unit revenues and costs in the stevedoring industry since 1985.

¹⁴ Annualised based on 8-month data.

Figure 3.2 Nominal unit revenue, costs and margins—1985–2004



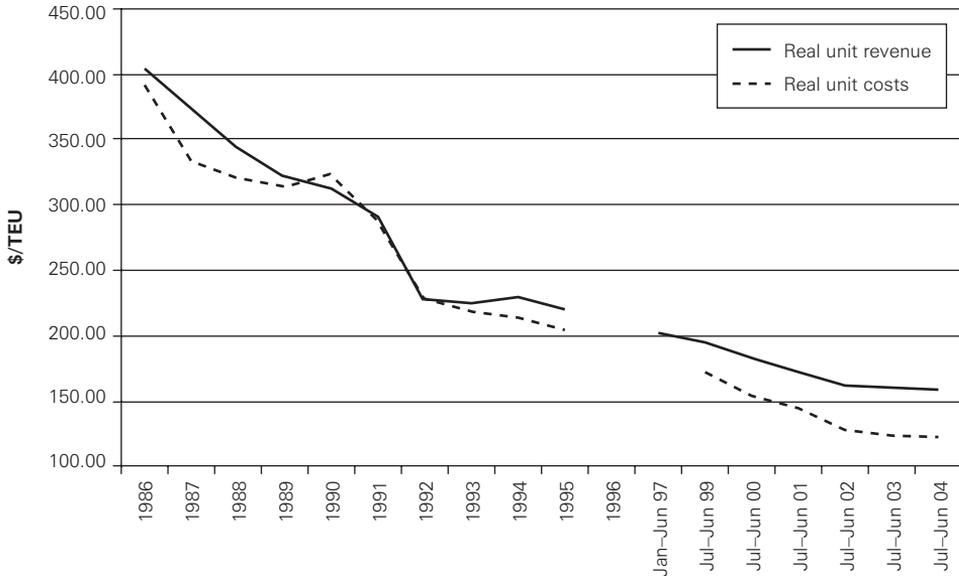
Sources: Australian Competition and Consumer Commission 1996, *Monitoring of Stevedoring Costs and Charges and Terminal Handling Charges 1995*. Figures for Jan-Jun 1997 are an estimate derived by the BTRE, *Waterline*. The stevedoring companies, as part of the monitoring program, supply figures for 1998–2004.

Other important observations on average revenues, costs and margins in 2003–04 include:

- unit revenue across the industry increased by 1.5 per cent to \$171.49/TEU. This follows a rise of 2 per cent in 2002–03 and is in contrast with the general downward trend observed from when monitoring began to June 2002.
- unit costs also rose by 1.5 per cent to \$131.75/TEU. This was the first rise in unit costs since 1990. The significance of this increase is further explored in section 4.
- unit margins continued to rise slightly in 2003–04, to \$39.74/TEU.

In real terms, however, the long-term trend of falling unit costs and revenues continued undisturbed in 2003–04 (see figure 3.3 below).

Figure 3.3 Real unit revenue and costs¹⁵—1985–2004



Sources and notes: ACCC 1996, *Monitoring of Stevedoring Costs and Charges and Terminal Handling Charges 1995*. Figures for Jan–Jun 1997 are an estimate derived by the BTRE, *Waterline*. The stevedoring companies, as part of the monitoring program, supply figures for 1998–2004. ABS, G03, Other Price Indicators, Chain Price Index, Gross Domestic Product (available at <http://www.abs.gov.au>).

Figure 3.3 reveals that:

- the long-term downward trend in real unit revenues and costs continued in 2003–04. Real unit revenues and costs have been falling steadily since 1986.
- in contrast with the established trend, real margins fell in 2003–04 as the fall in real unit revenues in absolute terms was larger than the fall in real unit costs. Real unit margins had been rising since 1992.

Additional detailed data on real unit revenues, costs and margins is presented in table 2 in appendix C.

3.3.1 Sources of revenue

The two major categories of revenue reported by stevedores to the ACCC are stevedoring revenues and ‘other revenues’.¹⁶ The main observations on revenue in the stevedoring industry in 2003–04 are that:

- there was no substantive change in unit revenues from stevedoring activities with two of the three stevedoring companies reporting either constant or lower stevedoring revenues per TEU

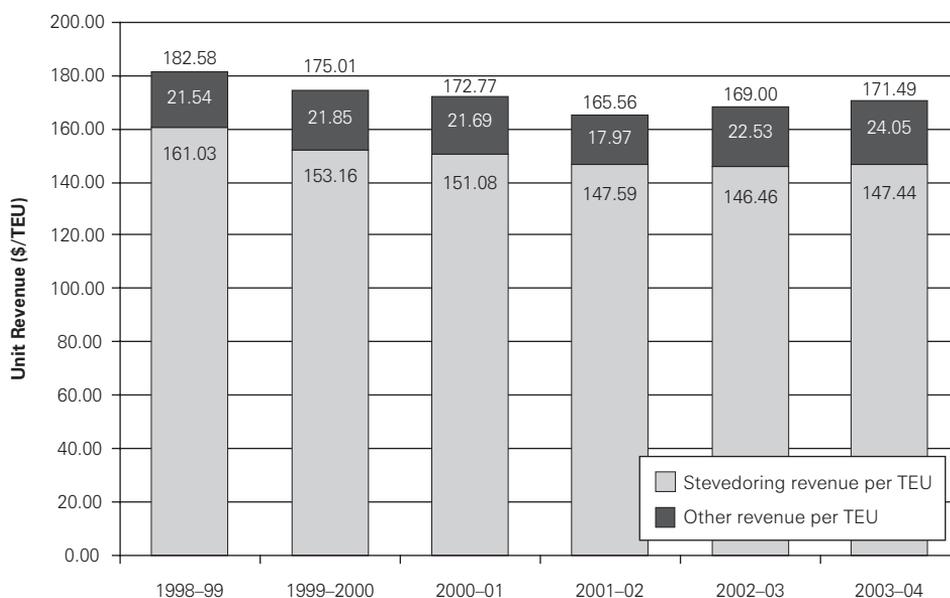
¹⁵ expressed in terms of 2000–01 prices.

¹⁶ ‘Other revenue’ includes revenue from break-bulk, berth hire, container storage and repositioning, penalties, quarantine inspection and other ancillary services.

- as was the case in the previous 12 months, the main driver of revenue growth in 2003–04 was revenue earned on ‘other’ services, rather than on stevedoring activities
- increases in ‘other revenues’ were again significant. The share of other revenues in total revenues as well as other revenues/TEU increased in 2003–04. All three stevedores recorded rises in other revenue, both per TEU and as a proportion of total revenue.

Figure 3.4 presents a schematic comparison of revenue earned on stevedoring and other services per TEU, for the years 1998–99 to 2003–04.

Figure 3.4 Components of total revenue per TEU



Source: Data supplied by stevedoring companies.

Figure 3.4 shows the following trends:

- unit revenue classified as ‘other’ has risen markedly since 2001–02 while
- unit stevedoring revenue has not changed significantly in the last two financial years.

Data in table 3.1 further shows that on a per TEU basis, the increase in other revenue accounts for most of the rise in unit revenues in 2003–04.

Table 3.1 Change in stevedoring and other revenue per TEU—2002–03 to 2003–04

	(\$/TEU)	%
Total revenue per TEU	2.49	1.5
Stevedoring revenue per TEU	0.97	0.7
Other revenue per TEU	1.52	6.75

Source: Data supplied by stevedoring companies.

The ACCC noted in the 2002–03 report factors that may contribute to an increase in other revenues. These include a combination of higher charges for existing services, revenue from new services (especially related to storage of containers and to the interface between ports and road/rail infrastructure), and separate charges for services that may have been previously bundled in the container lift rate.

Storage revenue

An increasingly important component of other revenues in recent years has been derived from providing yard storage services. Historically, stevedores have provided a free storage period, understood to be around 4–5 days. Storage fees are applied if containers are not collected from the terminals within the fee-free period.

Information given to the ACCC shows that storage revenue has increased significantly in recent years. This is shown in table 3.2.

Table 3.2 Storage revenue—total and per unit

	2001–02	2002–03	2003–04	% change	
				2001–02 to 2003–04	2002–03 to 2003–04
Storage revenue					
Total (\$,000)	15,438	21,775	26,559	72.0	22.0
Unit (\$/TEU)	4.94	5.86	6.63	34.3	13.1

Source: Data supplied by stevedoring companies.

While the experiences of individual stevedores have differed, in the three years to June 2004 storage revenue per TEU has increased 34.3 per cent across the industry. The growth is more significant in absolute terms because total revenue from storage services increased from \$15.4 million in 2001–02 to \$26.6 million in 2003–04, a rise of 72 per cent.

On the basis of limited market inquiries conducted by the ACCC, it appears that unit revenue from storage services has risen as a result of steps taken by stevedores to manage congestion in yards and improve terminal performance. It seems that storage charges have risen and the number of fee-free days reduced from 4–5 to 3 in an effort to deter users from using terminals for long-term storage. Also, a seven-day week cycle has been implemented.

The rise in storage revenue in 2003–04 may be partly driven by higher charges implemented in response to storage yard congestion and partly by a higher incidence of containers left in terminals beyond the fee-free period. The latter may be a temporary occurrence as the industry gradually adjusts to fewer fee-free days and the inclusion of Saturdays and Sundays in the operational cycle (and thus in the fee-free period). The ACCC intends to monitor trends in storage revenue in future monitoring reports.

The ACCC is also aware of concerns that new security measures at Australia’s ports may also be contributing to increases in storage charges paid by shippers. Under new requirements, the Australian Customs Services (ACS) holds selected containers for X-ray inspection. It is understood that sometimes containers are not returned by ACS in time for collection within the fee-free period, thus attracting storage charges. It is not clear how much this has contributed to the increase in storage revenue in 2003–04.

3.3.2 Effects of trends in container usage on average revenue

Unit total revenue is a broad measure of average revenue as it captures revenue earned from the complete range of services provided by stevedores—core stevedoring services of loading/unloading containers, as well as other ancillary services.

Unit revenue attributable to core stevedoring services is a weighted average measure of revenue earned on both 20 and 40-foot containers. The proportion of containers represented by 20 and 40-foot containers, as well as relative changes in these proportions, can affect this average measure of stevedoring revenue.

For example, an increase in the relative use of 40-foot containers can have a downward effect on stevedores' average measures of revenue. This is because, everything else held constant, the quantity of TEUs increases with greater use of 40-foot containers. If the nominal charge for a 20-foot container is the same as for a 40-foot container, it follows that from a stevedore's perspective, a proportionate increase in the use of 40-foot containers will result in lower average revenues.¹⁷

To isolate the effects of product mix changes inherent in broad average measures, the ACCC analysed separate data on unit revenue earned on 20 and 40-foot containers. These provide a more accurate indication of prices actually paid by users.

Table 3.3 shows data on industry-wide unit revenue and unit revenues earned on 20 and 40-foot containers for the last three years.

Table 3.3 Average stevedoring revenue and containers—20 and 40-foot containers

(\$/TEU)	2001–02	2002–03	2003–04	% change 2001–02 to 2003–04	% change 2002–03 to 2003–04
Unit total stevedoring revenue all containers	147.59	146.46	147.44	-0.1	0.7
Unit stevedoring revenue for 20' containers	194.33	196.92	201.13	3.5	2.1
Unit stevedoring revenue for 40' containers	99.75	101.02	103.31	3.6	2.3
20-foot containers (TEUs)				12.3	3.4
40-foot containers (TEUs)				39.9	13.4

Source: Data supplied by stevedoring companies for all terminals except P&O's White Bay.

The salient points to emerge from table 3.3 follow.

- Unit stevedoring revenue earned on both 20 and 40-foot containers rose slightly across the industry during 2003–04, indicating higher stevedoring charges for both these container sizes.
- The use of 40-foot containers increased relative to the use of 20-foot containers in 2003–04, continuing the trend from 2002–03.
- Compared with two years ago, use of 40-foot containers was almost 40 per cent greater in 2003–04 while use of 20-foot containers increased 12.3 per cent.

The evidence on relative use of 20 and 40-foot containers in the last two financial years represents a marked shift in usage patterns. All else being equal, an increase in the relative use of 40-foot containers has a negative impact on unit revenues per TEU.

¹⁷ It is understood that stevedoring charges are not always differentiated on the basis of size.

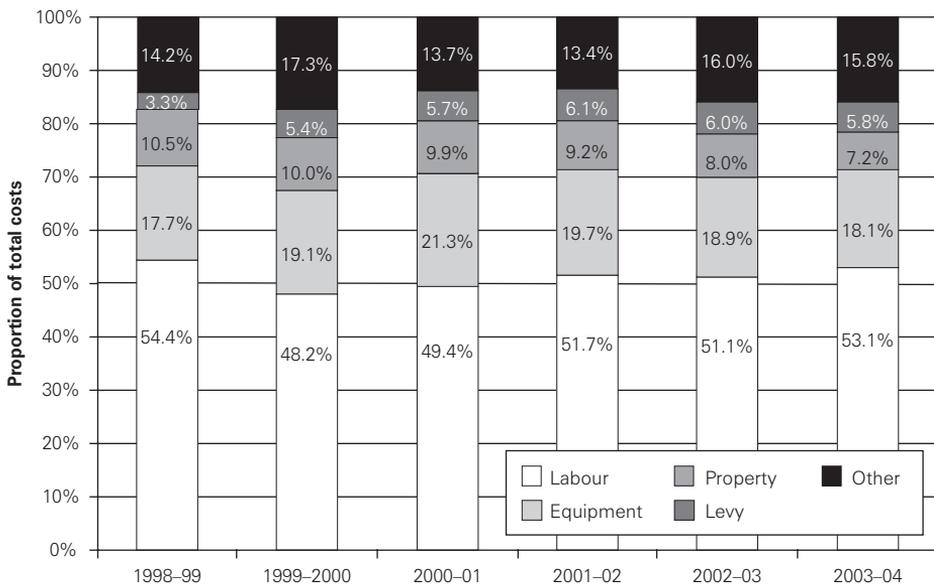
3.3.3 Cost components

Relative cost shares

Most of the key cost categories have exhibited relative stability since monitoring began in 1998–99. Generally, the relative shares of all cost categories have changed little since monitoring began.

Figure 3.5 shows changes in the share of total costs held by key cost components from 1998–99 to 2003–04.

Figure 3.5 Cost components as a proportion of total costs (%)



Source: Data supplied by the stevedoring companies.

Notes: Other costs include port management costs and other overhead costs.

The following observations can be made on the composition of costs in figure 3.5:

- the share attributable to labour costs has varied between 48.2 and 54.4 per cent of total costs over the six years to June 2004
- equipment costs, the largest component after labour, have ranged between 17.7 and 21.3 per cent of total costs from 1998–99 to 2003–04
- the industry levy share again fell slightly in 2003–04 and represented 5.8 per cent of total costs.

Relative importance of capital and labour costs

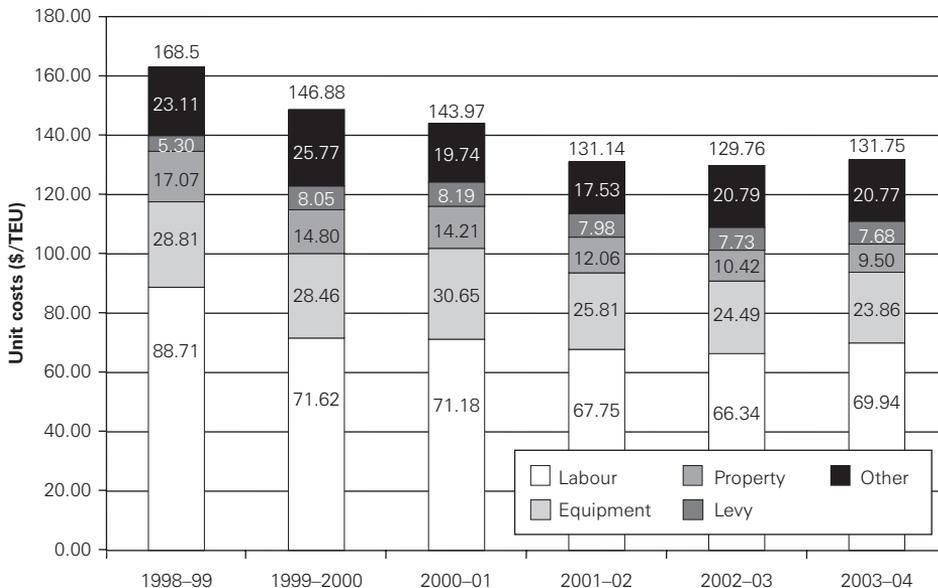
Changes in the capital–labour cost ratio can be seen as an indicator of changes in the efficiency with which these two inputs are combined. A rise in the capital–labour ratio is consistent with improving productivity as the relative importance of labour costs declines while the share of costs attributable to equipment increases. On the other hand, a fall in the capital–labour cost ratio may indicate diminishing efficiencies.

Figure 3.5 shows changes that appear to have occurred in the relative importance of equipment and labour costs. While the capital–labour cost ratio rose in 1999–2000, since 2000–01 the labour cost share has steadily risen while the equipment cost share has fallen. In 2003–04 the proportion of costs attributed to labour was 53.1 per cent, up from 51.1 per cent in the previous year. The share of equipment costs in 2003–04 was 18.1 per cent, down from 18.9 per cent in 2002–03. These figures indicate that the capital–labour cost ratio fell again in 2003–04.

Variations in unit cost components

Figure 3.6 shows changes in the various cost components per TEU.

Figure 3.6 Cost components per unit (\$/TEU)



Source and notes as for figure 3.5.

Relevant points that can be noted from figure 3.6 on costs per TEU include:

- all key cost components, except labour costs, fell in 2003–04 when measured on a per unit basis
- labour costs per TEU increased 5.4 per cent during 2003–04 from \$66.34/TEU to \$69.94/TEU
- higher unit labour costs were primarily responsible for the rise in unit total costs in 2003–04.

As noted above, 2003–04 marked the first time since monitoring began that unit labour and unit total costs have risen. As suggested earlier, this may indicate loss of some efficiencies gained following reforms in the mid-1990s.

The rise in unit costs may also indicate capacity constraints as the industry finds it more costly to service higher levels of throughput. With total industry TEUs rising by 8.9 per cent in 2003–04, the rise of 5.4 per cent in labour costs per TEU is unlikely to be fully explained in terms of CPI wage adjustments. Major contributors to higher unit labour costs in 2003–04 probably included higher overall employee numbers and the use of more costly overtime and casual labour. The significance of a rise in unit costs is further explored in section 4 below.

Industry levy

Total industry levy payments were \$30.2 million in 2003–04, an increase of 8 per cent over 2002–03. However, per TEU, unit levy payments fell slightly to \$7.68/TEU (–0.6 per cent). This is because the levy is applied as a flat charge on each container (regardless of size) and its incidence on costs per TEU diminishes as the relative product mix changes towards 40-foot containers.

In any given period, a number of factors can impact on changes in margins and profits. Factors that have influenced margins include: cost savings associated with improved industry productivity levels; increases in the volume of container throughput (which contribute to a lowering of unit costs); rises in revenues earned from other activities or services other than core stevedoring services; and shifts in product mix from 20-foot to 40-foot containers. The higher unit margins observed since the monitoring program began are not inconsistent with absorption of the levy.

3.4 Rates of return

Information provided to the ACCC shows that the established trend of rising returns in the stevedoring industry continued in 2003–04. Data in table 3.4 shows annualised earnings before interest and tax (EBIT) for the three stevedores since 1998–99 expressed as a percentage of average assets. For comparative purposes, rates of return are also shown for other selected companies.

Table 3.4 Rates of return—earnings before interest and tax/average assets

Rate of return on assets (%)	1998–99	1999–2000	2000–01	2001–02	2002–03	2003–04
Average rate of return for Australian stevedores	10.57	13.24	15.21	19.29	25.57	27.80
PSA Corporation (Singapore)	9.90	12.30	14.89	8.10	13.66	
South Port Ltd	6.70	9.50	10.70	14.89	14.32	11.74
Port Otago Ltd (New Zealand)	18.82	15.70	16.40	9.40 ¹⁸	8.85 ²⁰	7.48 ²⁰
Lyttelton Port Co Ltd (New Zealand)	29.54	32.30	30.44	31.40	21.09	17.30
Ports of Auckland Ltd (New Zealand)	17.38	18.13	18.13	12.21	14.06	17.5

Source: Data supplied by the stevedoring companies, annual reports and the Australian Stock Exchange.

Note: Other companies are overseas port authorities that also conduct stevedoring activities.

¹⁸ These figures are for Port Otago Ltd's port operations.

Table 3.4 shows that:

- average rates of return for the Australian stevedoring industry rose again in 2003–04, albeit marginally, continuing the trend evident since the monitoring program began
- in 2003–04 the average rate of return on assets for the three stevedores increased from 25.57 per cent to 27.80 per cent—the increase in returns recorded in the 12 months to June 2004 is smaller than in the earlier years of the monitoring program
- average rates of return earned by the three Australian stevedoring companies have generally been above those of overseas operators.

In the absence of an assessment of the economic costs associated with providing stevedoring services, including an assessment of the efficiency of the cost base, the approach to asset valuation, and risk, it is not possible for the ACCC to assess the reasonableness of the returns. However, information in this report shows that the recent trend of increasing returns in the industry was maintained during 2003–04.

3.5 Quality of service

Key stakeholders generally acknowledge that the quality of stevedoring services at Australian container terminals has improved over the last decade. This is supported by anecdotal evidence from the ACCC's market inquiries as well as from Productivity Commission studies.¹⁹

In addition, the BTRE indicators of service quality continue to be high. For example, ship waiting times for berths at stevedore wharves were minimised (less than four hours) on 93 per cent of occasions during the June quarter 2004 at the five Australian major mainland ports (compared with 97 per cent in the June quarter 2003).²⁰ The BTRE data generally suggests that berth availability has been relatively high and reliable since 2000.

¹⁹ See Productivity Commission, *International Benchmarking of Container Stevedoring*, 2003, p. 15.

²⁰ BTRE, *Waterline*, October 2003, pp. 18–19, and October 2004, pp. 23–24. This is based on sample data which varies from port to port but comprises, on average, around 20 per cent of all calling ships during each quarter.

4 Key issues from 2003–04 monitoring program

Over the last decade, the stevedoring industry has been characterised by declining unit costs as improvements in workplace arrangements and work methods and investment in new technology delivered substantial efficiency gains. In its previous monitoring report the ACCC reported that the rate of decline of unit costs appeared to slow down in 2002–03. The ACCC queried whether this meant that the benefits potentially available under earlier reforms were being exhausted and whether capacity constraints were beginning to emerge.

In the light of unit total costs rising 1.5 per cent in 2003–04, it is again relevant to consider whether the industry is at a stage where further productivity gains may be progressively more difficult to realise and whether capacity constraints are beginning to affect outcomes.

4.1 Capacity

The possibility of capacity constraints emerging in Australian stevedoring is an increasingly topical issue with important economic and social consequences.

Capacity in stevedoring

The ACCC does not have information on the level of capacity at Australia's container terminals. Capacity in stevedoring is inherently difficult to quantify. However, as was noted in section 2, strong growth in tonnage has been handled in Australia's ports in the last few years (averaging about 12 per cent per annum) which, if sustained, is likely to place pressure on existing infrastructure.

Capacity in stevedoring is typically defined in terms of TEUs that can be handled annually at a terminal. Capacity is a function of a number of factors, the most critical being quay length which is finite and determines the number of ships that can berth at any one time. Capacity is also affected by the number of quay cranes that operate on a terminal and the size of container storage (yard) space.

These three factors are fixed in the short term and set a ceiling on the level of throughput in a given period of time. Quay length is absolutely fixed in the short term and acts as a physical restraint on capacity. On the other hand, while the number of cranes and yard space are fixed in the short term, the relationship between capacity and equipment/yard space is less rigid as it may be affected by the efficiency with which these two factors are used and managed.

Finally, capacity is also a function of the size and skill of the labour force employed at a terminal. Unlike the other factors of production, however, there is greater flexibility in the way that labour can be adjusted in response to changes in volumes.

Changing capacity to accommodate changes in volumes

The design and scale of operations of stevedoring terminals often reflect the fact that patterns of activity can be irregular. The timing of throughput at a terminal is difficult to manage as it often depends on unpredictable shipping movements which are outside the control of stevedoring operators. Also, because of the vagaries of the shipping trade, levels of throughput can fluctuate significantly, with periods of intense activity interspersed with sometimes lengthy intervals of very low activity. As such, a stevedoring terminal is likely to be operating at peak levels on an irregular basis.

In the early phases of a growth cycle, a stevedoring terminal is likely to experience an increasing incidence of peak-activity periods before it reaches absolute capacity constraints. In these initial stages of growth, most factors of production other than labour are fixed, and increasing levels of throughput are likely to be associated with increasing labour costs. Over the medium to longer term, capacity can be increased by investing in additional equipment, principally quay cranes and straddle gantries. Ultimately, however, quantum changes in capacity can only be brought about by expanding the scale of the terminal, in essence increasing berthing and storage space, or establishing new terminals.

Possible capacity constraints in Australian stevedoring

The ACCC understands that unit cost increases in 2003–04 resulted from measures taken by stevedores to deal with a higher incidence of peak-activity periods. The rise in unit costs is almost totally explained by higher labour costs incurred to service increasing levels of throughput.

Apart from the rise in unit labour costs, there is other indirect evidence of congestion or capacity constraints. For example, the ACCC notes that a key industry body has reportedly complained about heavy congestion at Australia's terminals and criticised stevedoring companies for poor planning for growth and inadequate investment.²¹ In addition, the decisions by the two major stevedores to extend operational hours by offering services on Saturdays and Sundays and to improve management of container traffic flows (by, among other things, improving the road/rail interface at terminals)²², can also be seen as responses to emerging capacity constraints.

It is not known how much additional capacity can be created by extending operational hours. At best, extending operational hours may be appropriate as a temporary solution. However, if current congestion reflects permanent changes in patterns and levels of activity, then investment in capacity enhancing equipment may be necessary, such as larger and more efficient straddle carriers, gantries and loading cranes, or in additional equipment. Information provided to the ACCC by Patrick and P&O regarding plans for investment in new equipment suggests that peak-level activity is becoming more frequent and that current configurations may not be adequate to deal with increasing volumes.²³

In conclusion, the ACCC considers that infrastructure at Australian stevedoring terminals may be under pressure from growing levels of activity. This observation is primarily based on evidence of higher unit costs in 2003–04, driven largely by higher labour costs. Steps taken by the industry to extend operational hours and invest in additional equipment also suggest that there may be emerging capacity issues.

²¹ Comments attributed to Shipping Australia in 'Congestion at Crisis Point', Lloyd's List *Daily Commercial News*, 4 December 2003.

²² Lloyd's List *Daily Commercial News*, 26 March and 16 April 2004.

²³ Patrick, advice dated 30 June 2004. P&O Ports, advice provided 16 September 2004.

Efficient responses to capacity constraints

The industry's response to capacity problems is likely to promote economic efficiency if it is consistent with outcomes reasonably expected in competitive markets. Under conditions of contestability, an industry experiencing capacity constraints and rising margins and rates of return on assets, would attract additional capacity either through the entry of a new firm or through new investments by incumbent firms. On the other hand, if contestability is weak, incumbents have the incentive (and the ability) to delay responding to capacity problems, or ignoring them altogether, and allow the infrastructure to operate less efficiently.

A key issue is whether it is more efficient for an incumbent or a new firm to invest in additional capacity. This may depend, among other things, on the significance of economies of scale relative to market size. For example, if economies of scale are important, then expanding existing operations might lead to lower unit costs than establishing a new terminal. Conversely, if economies of scale are not significant, and other entry barriers are low, competitive disciplines exerted by the threat of (and actual) entry should encourage efficient investment decisions.

As noted in section 2, the evidence on economies of scale and barriers to entry in stevedoring is mixed. Generally, the experience in Australia and other countries suggests that stevedoring is not a natural monopoly and that it may be contestable. However, in some cases contestability may be inhibited by factors that restrict movements into the industry. In Australia, entry is likely to be discouraged by the nature of the leasing arrangements between incumbent stevedores and port authorities and by spatial constraints (that is, availability of land and the configuration of ports). The threat of entry is unlikely to be credible if berthing and yard facilities in existing terminals are tied to incumbents under exclusive and long-term leases (typically up to 20 years) and if there is no suitable land for new terminals at or near existing ports.

Australian industry responses to capacity constraints

Availability of land to expand stevedoring capacity may be an emerging issue in Australia. It is not clear how much spare land is available to stevedores within existing lease arrangements. The ACCC understands that in most ports, there is space (quay and storage) to accommodate additional equipment. To the extent that such land may be neither used efficiently by incumbent stevedores nor accessible by new operators, outcomes in the industry may be less than optimal.

If there is a land constraint in Australian stevedoring, it is likely to take time to resolve. Reconfiguring ports requires long lead times involving consideration of economic as well as social and environmental issues. However, the industry seems to be taking steps to address the long-term implications of capacity constraints. The ACCC notes that state governments and port authorities have recently made decisions about, or are presently involved in assessing, port infrastructures and stevedoring facilities following strong growth in throughput at all Australian ports. According to the Association of Australian Ports and Marine Authorities (AAPMA), Australian ports are undergoing the most significant expansion since the commodities boom in the 1970s.²⁴ In all, the AAPMA has identified 13 major port development projects throughout Australia.

²⁴ See 'AAPMA address warns on stevedoring, towage competition', Lloyd's List *Daily Commercial News*, 21 July 2004.

For example, in NSW the state government has established a commission of inquiry to assess container terminal facilities at Port Botany. A proposal by the Sydney Port Corporation includes plans to expand port infrastructure and create additional capacity by altering the configuration of the port rather than making more space available to Patrick and P&O Ports. This would facilitate the establishment of a third terminal operation. This is a positive initiative as it enhances the scope for a new competitor to enter the Sydney market and compete with incumbent stevedores.

Given the fact that incumbent stevedores operate nationally to service the multi-port nature of Australia's shipping trade, successful entry into the stevedoring industry may require a presence at a number of ports. The viability of a third operation in Port Botany is likely to be improved if it were complemented by an opportunity to establish stevedoring operations in at least one other major port. It would therefore be beneficial for competition in the industry if plans to expand in Sydney were matched by port authorities in other key markets, notably in Brisbane and Melbourne.²⁵

It is understood that the Port of Melbourne Corporation has plans to redevelop Victoria Dock including infrastructure for a new operator (believed to be Westgate Ports) to provide a third stevedoring operation.²⁶ However, these plans appear to be complicated by the channel deepening project in Port Phillip Bay, which will allow larger vessels to use the port and potentially have ramifications for container terminal configurations.

In Brisbane, the ACCC understands that both Patrick and P&O have plans to invest in new equipment and land as part of a plan by Port of Brisbane Corporation (PBC) to expand the size of existing infrastructure at Fisherman's Island.²⁷ However, it appears that PBC does not have plans for a third container stevedoring operation following the exit of CSX in 2001.²⁸

The ACCC understands that redevelopment of the port of Fremantle in WA may also include the introduction of a third stevedore.²⁹

Concluding comments on capacity

Taking into account all available information, it appears that the stevedoring industry may be beginning to experience the effects of capacity constraints. Importantly, however, the industry is responding to evidence of increasing congestion at Australia's terminals. Among other things, stevedores have introduced measures to extend operational hours and have plans to embark on new investment programs. Also, active involvement by port authorities in re-assessing port configurations and planning for additional terminals, particularly in Sydney and Melbourne, can potentially address capacity issues and promote contestability and efficient outcomes in the industry.

²⁵ Recent press articles have attributed such a strategy to Hutchison Port Holdings, an international port operator which apparently considers that a presence in Brisbane, Sydney and Melbourne is required to challenge the Patrick-P&O duopoly. See 'Sydney ports duopoly challenge', *Australian Financial Review*, 19 October 2004.

²⁶ See 'Victoria's terminal aid unfair', *Australian Financial Review*, 8 July 2004.

²⁷ Patrick, advice dated 30 June 2004.

²⁸ The redevelopment of the port of Brisbane includes a common-user facility used for automotive and general stevedoring, as opposed to container stevedoring.

²⁹ See 'AAPMA address warns on stevedoring, towage competition', Lloyd's List *Daily Commercial News*, 21 July 2004.

4.2 Productivity improvements

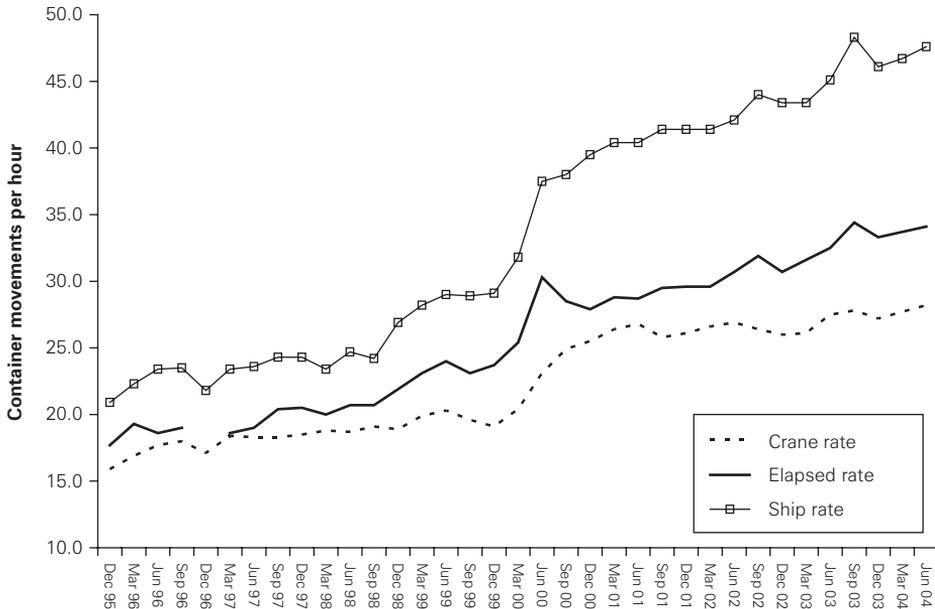
The ACCC's analysis of productivity trends is based on data published by the Bureau of Transport and Regional Economics (BTRE). In its latest *Waterline* publication (October 2004), the BTRE reported on recent trends in capital and labour productivity of container stevedoring operations in the five mainland ports. Productivity is measured in terms of average crane, average ship and average elapsed labour rates.

The key conclusion from the most recent productivity data is that:

- measures of productivity improved in all five mainland Australian ports during the 12 months to June 2004 indicating that the upward trend evident since the early 1990s is continuing.

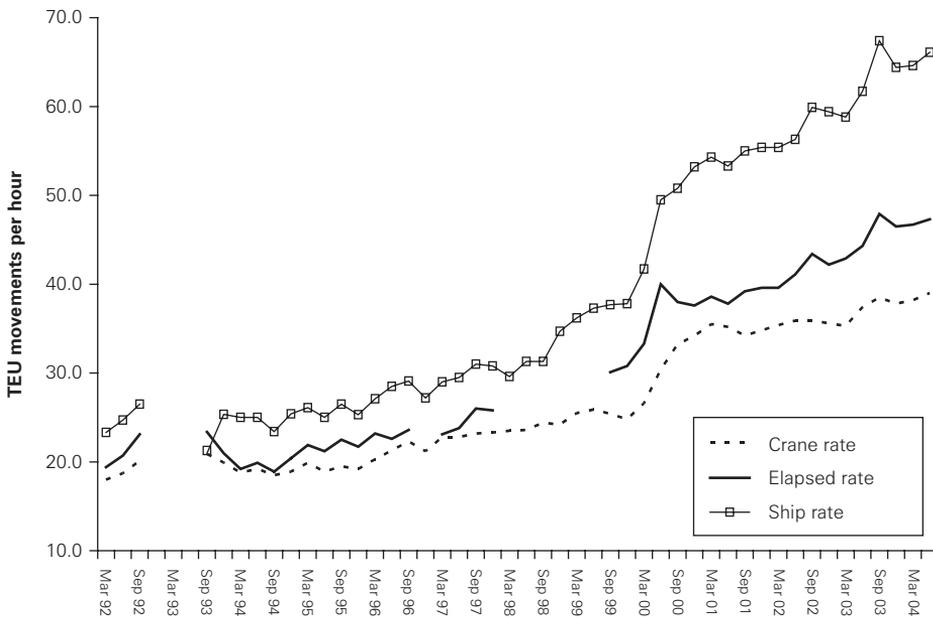
Productivity trends are shown in figures 4.1 and 4.2.

Figure 4.1 Productivity indicators, containers/hour—five-port average 1995–2004



Source: BTRE, *Waterline*, October 2004. Averages for ports of Brisbane, Sydney, Melbourne, Adelaide and Fremantle.

Figure 4.2 Productivity indicators, TEUs/hour—five-port average 1992–2004



Source: As per figure 4-i.

The key movements in productivity indicators in 2003–04 are as follows:

- The five-port average **crane rate**³⁰ measured in terms of containers per hour and TEUs per hour were higher in 2003–04 than in the previous financial year. During the six months to December 2003, the average crane rate fell slightly to 27.2 containers per hour. However the crane rate rose in the first six months of 2004 reaching an historic high (since *Waterline* began collecting data in 1996) of 28.2 containers per hour in the June quarter. The average crane rate measured in TEUs per hour also rose from 37.4 in June 2003 to 39.0 in June 2004.
- The five-port average **ship rate** is defined as productivity per ship while the ship is worked.³¹ The average ship rate measured in terms of containers per hour increased from 45.1 in June 2003 to 46.1 in December 2003 and to 47.6 containers per hour by the June quarter 2004. The average ship rate, measured in TEUs per hour, also rose during 2003–04 from 61.7 to 66.1 TEUs per hour.
- The **elapsed labour rate** is defined as productivity per ship, based on the time labour is aboard the ship.³² The five-port average elapsed labour rate measured on the basis of containers per hour increased from 32.5 in June 2003 to 34.1 in June 2004. Similar trends were evident in the five-port average elapsed labour rate measured in terms of TEUs per hour, which increased during 2003–04 from 44.3 in June 2003 to 47.3 TEUs per hour in June 2004.

³⁰ The five-port average crane rate is defined as productivity per crane while the ship is worked. Bureau of Transport and Regional Economics, *Waterline*, issue no. 3, p. 2.

³¹ *ibid.*

³² *ibid.*

Efficiency gains in stevedoring have produced benefits for both stevedores and users. As noted in section 3.3 real unit revenues and costs have been on a general downward trend since 1986. This suggests that both stevedores and users have gained in real terms from reforms in the industry. Users have benefited from real falls in average prices of around 19 per cent since 1998–99 (see table 2, appendix C). A recent study on Australia’s waterfront industry also suggests that there have been considerable benefits to users from waterfront reforms; among other things, it claims that users of stevedoring services at one of Australia’s major ports may have received around two-thirds of total potential gains available from productivity improvements.³³

Stevedores have benefited from real gains in average margins: during the six years from 1998–99 to 2003–04 the fall in unit costs has exceeded the decline in unit revenues so that real margins have risen 55.8 per cent (see table 2, appendix C).

However, the increase in unit costs in 2003–04 raises questions about the industry’s ability to continue to improve efficiency. Evidence of higher unit labour costs, coupled with falls in the capital–labour ratio considered in section 3.3.3, may mean that the potential benefits of reforms already undertaken may be in the process of being exhausted. If this were the case, then it may become increasingly difficult for the industry to continue obtaining efficiency gains from existing factors of production.

³³ See D Lawrence and A Richards, ‘Distributing the Gains from Waterfront Productivity Improvements’, *The Economic Record*, Vol. 80, Sept. 2004. The results are based on a study of stevedoring services at Port Botany during 1997–2001.

5 Company specific data

5.1 Introduction

This section presents the results of monitoring stevedore company information for each company and terminal. Where appropriate, it presents data for the companies and terminals in the form of index numbers rather than raw data to protect commercially sensitive information.

5.2 Patrick

5.2.1 Revenue and margins

Patrick's financial performance in 2003–04 appeared to remain unchanged compared to the previous financial year, despite an increase in volumes of about 9 per cent. Both total revenue per TEU and total costs per TEU for Patrick's overall operations (that is, stevedoring and non-stevedoring activities) were essentially unchanged from 12 months earlier. Consequently, margins per TEU also remained largely steady in 2003–04. Patrick's financial performance in 2003–04 relative to the previous 12 months indicated the following:

- Across all ports, unit total revenues rose by 0.5 per cent and unit total costs rose 0.7 per cent while unit margins rose 0.1 per cent.
- Patrick experienced increases in unit revenues and unit margins in Fremantle and Burnie.
- Patrick experienced a fall in unit revenues and unit costs at the ports of Brisbane and Melbourne. In Brisbane, Patrick recorded a fall in unit margins while in Melbourne unit costs fell more sharply than unit revenues leading to higher unit margins.
- In the port of Sydney unit revenue remained stable in 2003–04 but a small rise in unit costs yielded a slight fall in unit margins.
- Unit stevedoring revenue per TEU was unchanged from 12 months earlier but unit 'other revenue' per TEU increased by 5.6 per cent.
- Compared with 1998–99, Patrick's unit revenue was 13 per cent lower and unit costs 22 per cent lower in 2003–04.

Patrick earned slightly higher unit stevedoring revenues for both 20 and 40-foot containers. These results are not reflected in higher overall average stevedoring revenues as the shift towards 40-foot containers during 2003–04 offset higher unit revenues earned on both (as 40-foot containers collect lower unit revenues than 20-foot containers per TEU).

5.2.2 Changes in cost components

The ACCC collected unit cost data disaggregated into several cost categories: stevedoring, labour, equipment and property costs. The data on Patrick's cost indexes are found in table 1 at appendix D. The total cost index shows that Patrick's costs declined until 2001–02. Since then, Patrick's unit total costs have registered slight increases. The major reason for the rise in unit costs in 2003–04 appears to be higher labour costs. The ACCC has observed the following trends and movements in unit cost components in 2003–04 compared with 2002–03:

- relatively stable unit stevedoring costs
- markedly higher unit labour costs. Across all ports, Patrick recorded an average increase in unit labour costs of 8 per cent. Patrick experienced increases in unit labour costs at all of its terminal operations except Burnie, ranging from 6.1 per cent in Brisbane to 16.1 per cent in Fremantle. Labour cost increases were mainly driven by CPI wage adjustments and greater use of more costly casual labour.
- generally lower unit equipment and property costs.

Unit total costs were 22 per cent lower in 2003–04 compared with 1998–99, reflecting a fall in all unit cost components: labour unit costs have fallen 16 per cent, property unit costs by 53 per cent and equipment unit costs 34 per cent.

Patrick's industry levy payments amounted to \$14.4 million in 2003–04.³⁴ This was 6.2 per cent higher than the previous financial year. However, levy payments per TEU declined 2.8 per cent as a result of the shift to 40-foot containers, the effect of which reduces the magnitude of the levy per TEU.

Unit 'other costs' fell slightly in 2003–04, contrary to 2002–03 when they rose markedly. On a per TEU basis other costs fell 0.6 per cent in 2003–04. Other costs³⁵ consist of overheads, port management costs and other direct costs.

5.2.3 Patrick summary

The results of Patrick's operations during 2003–04 are not significantly different from the previous 12 months. Unit total revenue, costs and margins, attributed to both its entire waterfront business and its stevedoring specific operations, showed little change from 2002–03. Behind the slight increase in unit costs for Patrick there were substantial increases in unit labour costs, muted by falls in the other cost categories. This is the first time unit labour costs have increased since 1998–99.

³⁴ For all Patrick terminals excluding Darling Harbour and Webb Dock.

³⁵ Other costs are not shown separately in table 1 in appendix C but are included in industry-wide data presented in figures 3.5 and 3.6.

5.3 P&O Ports

5.3.1 P&O Ports' revenues and margins

P&O experienced approximately equivalent increases in unit revenues and unit costs in 2003–04. As a result, its unit margins remained relatively stable across its entire waterfront business. During 2003–04 P&O experienced the following movements in its financial performance compared to 2002–03:

- Overall unit total revenues rose 2.9 per cent while unit total costs increased by 3.3 per cent.
- Unit total revenues were materially higher in Brisbane and Sydney. Unit stevedoring revenue attributed to 20 and 40-foot containers increased about 4 per cent in each instance.
- Other costs increased 2.2 per cent on a per TEU basis.
- Unit revenue earned from activities other than stevedoring rose by 7.4 per cent in 2003–04.
- Compared to 1998–99, P&O's 2003–04 unit total revenue is 2.1 per cent higher while its unit costs are about 11 per cent lower.

Revenue from storage services increased markedly from \$11.8 million in 2002–03 to \$15.1 million in 2003–04, or by about 19 per cent per TEU.

Unit revenue from stevedoring activities rose at all ports despite comparatively greater use of 40-foot containers. As already noted, all else being equal, a shift in relative demand to 40-foot containers depresses overall average revenue rates. The increase in unit stevedoring revenue earned on 20-foot and 40-foot containers suggests that charges for stevedoring services were raised in 2003–04.

5.3.2 Changes in key cost components

P&O experienced higher unit costs in all ports, except for Fremantle. The following were observed in 2003–04 relative to 2002–03 in the labour, equipment and property cost indexes (see table 2 in appendix D):

- higher unit costs at Melbourne, Sydney and Brisbane
- higher unit labour costs at all ports with the most significant rises occurring in Brisbane (+7.7 per cent) and Fremantle (+6.4 per cent)—the first annual increases in unit labour costs for P&O since 1998–99
- unit equipment costs increased by 6 per cent in 2003–04, largely due to a 16 per cent rise in unit equipment costs in Melbourne
- declining unit property costs—except for Sydney, unit property costs for all ports were significantly lower in 2003–04 than in 1998–99.

Contrary to the downward trend since 1998–99, P&O's total unit costs rose by 3.3 per cent in 2003–04. This was largely due to substantial increases in unit labour costs in Brisbane and in equipment costs in Melbourne.

Total levy payments amounted to \$14.4 million in 2003–04, a rise of 8.8 per cent over 2002–03. However, levy payments per unit rose just 2.2 per cent as a result of the relative increase in the use of 40-foot containers.

5.3.3 P&O conclusion

P&O's unit margins remained stable in 2003–04 after increasing substantially in the previous financial year. Unit revenues rose by 2.9 per cent but this was offset by an increase of 3.3 per cent in unit costs.

For the first time since 1998–99, P&O experienced an increase in unit costs, mainly due to increases in unit labour costs and unit equipment costs for its operations at Brisbane and Melbourne respectively. P&O also recorded a substantial increase in revenue derived from storage services, in both absolute and per TEU terms.

5.4 CSX World Terminals Pty Ltd

During 2003–04 CSX reported slightly lower unit revenues, substantially lower unit costs and higher unit margins. The following observations can be made about CSX's financial performance in 2003–04 compared with 12 months earlier (see table 3, appendix D):

- Throughput at the Adelaide terminal rose 18 per cent.
- Overall unit revenues fell by 1.8 per cent while unit costs fell by 6.6 per cent.
- Overall unit margins increased by 23 per cent.
- Unit stevedoring revenues earned on both 20-foot containers and 40-foot containers fell and as a result unit stevedoring margins fell 14 per cent.
- Growth in unit 'other revenue' was about 9 per cent.

CSX's unit total revenue in 2003–04 is 3.6 per cent lower than in 1998–99, while unit costs declined 29 per cent compared to 1998–99.

Total levy payments were \$1.4 million in 2003–04, an increase of 20.1 per cent over the previous 12 months. Contrary to the trend evident for stevedores in other ports, CSX experienced greater demand for 20-foot containers compared to 40-foot containers. The total quantity of TEUs transported in 20-foot containers grew almost 23 per cent while the increase in 40-foot containers was 12 per cent. This resulted in a rise in average levy payments per TEU of 1.8 per cent.

6 Findings and conclusions

The key findings of this report are the following:

- The established trend of productivity gains continued in 2003–04.
- Total volumes in terms of TEUs increased by 9 per cent across the industry.
- Unit total revenue and unit stevedoring revenue earned on 20 and 40-foot containers rose in 2003–04 indicating that charges for stevedoring services were raised.
- Unit revenue from storage services increased in 2003–04 following a strong rise in the previous 12 months.
- For the first time since monitoring began in 1998–99, unit costs rose in 2003–04 largely as a result of higher labour costs.
- Unit margins and rates of return continued their upward trend in 2003–04.

The results of the monitoring program for 2003–04 differ from previous years in some important respects. Firstly, unit costs rose for the first time as higher labour costs more than offset falls in the other key cost categories. Secondly, overall unit revenues increased due to higher charges on stevedoring as well as other services, mainly container storage.

Evidence of increasing revenues from container storage and of higher labour costs raises the question of whether the industry may be experiencing capacity constraints after several years of strong growth. The ACCC understands that higher unit labour costs resulted mainly from an increase in overall employee numbers and from greater use of more costly overtime and casual labour. Unit storage revenue increased as stevedores raised charges to discourage long-term storage of containers at terminals, reduce congestion and improve terminal performance.

Information from stevedores suggests that margins and returns in the industry have continued to grow during 2003–04. While the ACCC has not assessed the reasonableness of returns in the stevedoring industry (as this would require detailed analyses of the economic costs of providing stevedoring services), it is questionable whether the present rising trend in returns would be sustainable under conditions of contestability, particularly in view of emerging capacity issues. From a competition perspective, there would be grounds for concern if an industry experiencing capacity constraints while earning higher margins and rates of return on assets, did not respond by expanding capacity.

If entry barriers in stevedoring were not significant, then it is likely that the present situation of rising returns and increasing congestion at stevedoring terminals would elicit investment in additional capacity by incumbent firms or new entrants. The ACCC notes Patrick and P&O's plans for investment in additional equipment at a number of terminals. This could alleviate capacity constraints in the short term. In the longer term, active involvement by port authorities in re-assessing the adequacy of current port configurations could lead to changes in existing port infrastructure resulting in greater capacity. Port authorities in the key ports of Brisbane, Sydney and Melbourne have recently made decisions about, or are in the process of assessing options for, expanding capacity. In the cases of Sydney, Melbourne and Fremantle, it is understood that consideration is being given to the possibility of introducing a third container stevedoring operator.

The report has considered factors that may constrain contestability in the industry. The ACCC has concerns that the exclusive and long-term nature of the lease arrangements between stevedores and port authorities can potentially reduce the scope for entry into the industry. Some of the issues raised in this report about possible impediments to competition require further exploration to identify whether there are areas of concern.

Appendix A: Ministerial directive

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 the end of each financial year.



Peter Costello

January 1999

Appendix B:

Part VIIA, Trade Practices Act 1974

s. 95ZF

Directions to monitor prices, costs and profits of a business

- (1) The minister may give the ACCC a written direction:
 - (a) to monitor prices, costs and profits relating to the supply of goods and services by a specified person; and
 - (b) to give the Minister a report on the monitoring at a specified time or at specified intervals within a specified period.
- (2) The Commission must, in preparing such a report, have regard to the need for commercial confidentiality.
- (3) The Commission must send the person a copy of the report on the day it gives the Minister the report.
- (4) The Commission must also make copies of the report available for public inspection as soon as practicable after the person has received a copy of the report.

s. 95ZG

Exemptions 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.

Appendix C: Selected industry data

Table 1 Miscellaneous unit data—1999–2004

		1998–99	1999–2000	2000–01	2001–02	2002–03	2003–04	% Change 2002–03 to 2003–04
Total Rev/Teu	(\$/TEU)	182.58	175.01	172.77	165.56	169.00	171.49	1.48%
Total Cost/Teu	(\$/TEU)	160.57	146.88	143.97	131.14	129.76	131.75	1.53%
Total Margin/Teu	(\$/TEU)	22.00	28.14	28.80	34.43	39.23	39.74	1.30%
Stevedoring Rev/Teu	(\$/TEU)	161.03	153.16	151.08	147.59	146.46	147.44	0.66%
Stevedoring Cost/Teu	(\$/TEU)	150.88	138.32	134.53	124.12	122.79	124.62	1.49%
Stevedoring Margin/Teu	(\$/TEU)	10.15	14.84	16.55	23.47	23.67	22.82	-3.60%
Other Rev/Teu	(\$/TEU)	21.54	21.85	21.69	17.97	22.53	24.05	6.75%
Other Rev/Total Rev	(%)	11.8%	12.5%	12.6%	10.9%	13.3%	14.0%	na

Sources: The stevedoring companies, as part of the monitoring program, supply figures for 1998–2004.

Table 2 Real unit revenue, cost and margins—1986–2004

(\$ per TEU)	Unit revenue	Unit cost	Unit margin	Deflator	Real unit revenue	Real unit cost	Real unit margin
1986	247.00	239.00	8.00	61.15	403.92	390.84	13.08
1987	244.00	218.00	26.00	65.33	373.52	333.72	39.80
1988	244.00	227.00	17.00	70.85	344.39	320.40	23.99
1989	247.00	241.00	6.00	76.93	321.09	313.29	7.80
1990	254.00	262.00	-8.00	81.10	313.19	323.06	-9.86
1991	244.00	243.00	1.00	84.10	290.13	288.94	1.19
1992	195.00	196.00	-1.00	85.73	227.47	228.64	-1.17
1993	195.00	190.00	5.00	86.78	224.72	218.96	5.76
1994	201.00	188.00	13.00	87.55	229.58	214.73	14.85
1995	206.00	191.00	15.00	94.00	219.15	203.19	15.96
1996	na	na	na	na	na	na	na
Jan – Jun 97	188.00	na	na	92.90	202.37	na	na
1998–99	182.58	160.57	22.00	93.65	194.96	171.46	23.50
1999–2000	175.01	146.88	28.14	95.50	183.26	153.80	29.46
2000–01	172.77	143.97	28.80	100.00	172.77	143.97	28.80
2001–02	165.56	131.14	34.43	102.33	161.80	128.16	33.65
2002–03	169.00	129.76	39.23	105.27	160.53	123.26	37.27
2003–04	171.49	131.75	39.74	108.57	157.95	121.35	36.61
% Change							
2002–03 to 2003–04	1.48%	1.53%	1.30%		-1.60%	-1.55%	-1.78%
1988–99 to 2003–04	-6.07%	-17.95%	80.62%		-18.98%	-29.23%	-55.80%

Sources and notes: ACCC 1996, *Monitoring of Stevedoring Costs and Charges and Terminal Handling Charges 1995*. Figures for Jan–Jun 1997 are an estimate derived by the BTRE, *Waterline*. The stevedoring companies, as part of the monitoring program, supply figures for 1998–2004. ABS, G03, Other Price Indicators, Chain Price

Appendix D:

Company trends in cost components

Table 1 Patrick trends in cost components (per TEU)—index 1999–2004

Brisbane	1998–99	1999–2000	2000–01	2001–02	2002–03	2003–04
Stevedoring cost index	100	93.3	103.9	87.3	89.0	86.0
Total labour cost index	100	85.8	86.7	82.0	87.4	92.7
Total equipment cost index	100	83.1	107.5	72.3	61.9	49.1
Total property cost index	100	71.7	76.9	63.6	59.2	55.0
Port Botany	1998–99	1999–2000	2000–01	2001–02	2002–03	2003–04
Stevedoring cost index	100	84.4	81.3	75.4	78.1	78.1
Total labour cost index	100	84.9	80.9	75.8	79.3	84.2
Total equipment cost index	100	85.8	88.4	77.3	73.2	67.6
Total property cost index	100	69.9	72.7	51.6	49.9	47.4
Fremantle	1998–99	1999–2000	2000–01	2001–02	2002–03	2003–04
Stevedoring cost index	100	90.0	74.4	68.2	68.7	73.7
Total labour cost index	100	81.2	68.1	63.7	60.5	70.3
Total equipment cost index	100	85.8	65.9	53.0	53.2	51.6
Total property cost index	100	113.8	86.5	79.3	90.5	101.5
East Swanson	1998–99	1999–2000	2000–01	2001–02	2002–03	2003–04
Stevedoring cost index	100	91.4	92.3	82.6	80.6	80.1
Total labour cost index	100	89.4	90.0	84.2	79.8	86.1
Total equipment cost index	100	93.9	97.4	80.4	78.8	68.7
Total property cost index	100	73.8	72.3	57.7	47.1	38.6
Burnie	1998–99	1999–2000	2000–01	2001–02	2002–03	2003–04
Stevedoring cost index	100	98.1	95.1	93.6	92.9	82.5
Total labour cost index	100	81.0	83.7	88.1	84.3	79.1
Total equipment cost index	100	93.9	100.0	109.5	111.1	103.7
Total property cost index	100	104.5	74.4	127.9	75.0	51.8
National	1998–99	1999–2000	2000–01	2001–02	2002–03	2003–04
Stevedoring cost index	100	88.8	87.2	78.7	79.1	79.2
Total labour cost index	100	85.4	82.5	77.9	77.7	83.9
Total equipment cost index	100	91.3	94.6	77.4	73.5	65.9
Total property cost index	100	75.8	73.8	58.6	53.2	48.6
Total cost index*	100	87.23	86.74	77.09	77.7	78.2

* 'Other costs' are included in the total cost index but not shown as a separate cost category.

Table 2 P&O trends in cost components (per TEU)—index 1999–2004

Brisbane	1998–99	1999–2000	2000–01	2001–02	2002–03	2003–04
Total labour cost index	100	89.0	90.3	90.8	80.6	86.8
Total equipment cost index	100	119.2	104.8	91.0	94.9	100.3
Total property cost index	100	98.1	82.3	70.6	62.8	56.4
Total cost* index	100	99.5	94.9	91.2	86.3	92.4
Sydney	1998–99	1999–2000	2000–01	2001–02	2002–03	2003–04
Total labour cost index	100	73.5	76.9	78.9	78.8	80.9
Total equipment cost index	100	111.6	124.9	111.1	107.2	107.1
Total property cost index	100	93.0	90.7	108.5	101.9	98.6
Total cost* index	100	88.7	90.0	88.1	85.7	88.7
Melbourne	1998–99	1999–2000	2000–01	2001–02	2002–03	2003–04
Total labour cost index	100	82.7	76.0	71.5	71.1	73.2
Total equipment cost index	100	113.1	127.3	114.0	106.2	123.6
Total property cost index	100	119.9	110.0	95.7	69.0	59.7
Total cost* index	100	102.6	95.1	90.8	90.2	92.1
Fremantle	1998–99	1999–2000	2000–01	2001–02	2002–03	2003–04
Total labour cost index	100	85.2	82.4	83.8	74.0	78.7
Total equipment cost index	100	92.8	92.7	82.4	73.0	67.0
Total property cost index	100	117.9	81.2	86.9	80.1	75.4
Total cost* index	100	92.2	88.5	88.2	80.6	80.1
National	1998–99	1999–2000	2000–01	2001–02	2002–03	2003–04
Total labour cost index	100	80.4	79.8	78.8	75.4	78.9
Total equipment cost index	100	110.5	118.0	104.2	99.5	105.5
Total property cost index	100	105.1	95.5	93.1	76.8	70.1
Total cost* index*	100	95.6	92.7	89.7	86.1	89.0

* 'Other costs' are included in the total cost index but not shown as a separate cost category.

Table 3 CSX trends in cost components (per TEU)—index 1999–2004

Adelaide	1998–99	1999–2000	2000–01	2001–02	2002–03	2003–04
Stevedoring cost index	100	131.4	131.4	97.5	88.6	86.5
Total labour cost index	100	123.7	113.3	92.4	85.6	80.6
Total equipment cost index	100	168.9	180.3	129.2	109.8	110.7
Total property cost index	100	106.7	109.3	56.5	17.2	18.8
National	1998–99	1999–2000	2000–01	2001–02	2002–03	2003–04
Stevedoring cost index	100	103.8	104.4	82.8	75.1	73.3
Total labour cost index	100	98.7	93.6	80.4	74.1	69.7
Total equipment cost index	100	115.6	130.2	101.6	85.7	86.5
Total property cost index	100	97.6	84.1	36.4	11.5	12.6
Total cost index*	100	106.2	105.6	80.9	76.2	71.2

Note: National data for the years 1998–99 to 2000–01 include ports of Adelaide and Brisbane. Operations at the port of Brisbane were terminated in August 2001.

*‘Other costs’ are included in the total cost index but not shown as a separate cost category.

ACCC offices

ACCC infocentre

For all business and consumer inquiries.

infoline: 1300 302 502

website: <http://www.accc.gov.au>

Addresses

ACT (national office)

PO Box 1199
DICKSON ACT 2602
Tel: (02) 6243 1111
Fax: (02) 6243 1199

Western Australia

PO Box 6381
EAST PERTH WA 6892
Tel: (08) 9325 0600
Fax: (08) 9325 5976

North Queensland

PO Box 2016
TOWNSVILLE QLD 4810
Tel: (07) 4729 2666
Fax: (07) 4721 1538

New South Wales

GPO Box 3648
SYDNEY NSW 1044
Tel: (02) 9230 9133
Fax: (02) 9223 1092

South Australia

GPO Box 922
ADELAIDE SA 5001
Tel: (08) 8213 3444
Fax: (08) 8410 4155

Tasmania

GPO Box 1210
HOBART TAS 7001
Tel: (03) 6215 9333
Fax: (03) 6234 7796

Victoria

GPO Box 520J
MELBOURNE VIC 3001
Tel: (03) 9290 1800
Fax: (03) 9663 3699

Queensland

PO Box 10048
Adelaide Street Post Office
BRISBANE QLD 4000
Tel: (07) 3835 4666
Fax: (07) 3832 0372

Northern Territory

GPO Box 3056
DARWIN NT 0801
Tel: (08) 8946 9666
Fax: (08) 8946 9600