

Port of Melbourne



Port of Melbourne Operations Pty Ltd
Submission to Productivity Commission
Australia's Maritime Logistics System

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Productivity Commission
Australia's Maritime Logistics System

PORT OF MELBOURNE SUBMISSION

REVIEW OF AUSTRALIA'S MARITIME LOGISTICS SYSTEM

Introduction and Overview

Port of Melbourne Operations Pty Ltd (PoM) is pleased to provide a response to the Productivity Commission's inquiry into Australia's maritime logistics system.

As the primary logistical hub of Oceania, the critical role of Australia's international and domestic supply chains have been demonstrated through the COVID pandemic, supporting communities and economic prosperity. Never before has the importance of freight and logistics been tested to such an extent, nor has it touched the lives of so many. With recent periods of empty shelves and delivery delays experienced across the globe, we have all seen first-hand what a fundamental role supply chain and freight logistics plays.

Closer to home freight movement is no longer a hidden economy, it has been demonstrated as the fundamental backbone to our nation's prosperity and we must all work together to improve its productivity. We strongly welcome the Morrison Government's initiative and the Productivity Commission's independent inquiry and review of the maritime logistics system.

Our maritime logistics system is the international gateway to our domestic freight and logistics supply chain. Within this context, Port of Melbourne (as with all Australian ports) and all of our tenants and ports users are all form a critical node in the supply chain from end to end. While we recognise the focus of the review is on the maritime logistics system, we must also recognise this is a node in a wider system and that the whole system (from international ports to the end consumer in our Australian communities) must work efficiently and productively to be able to build the resilience and capacity that will be needed to support a recovering economy.

The recommendations presented in our submission are critical to support the efficiency and productivity of key components of the end-to-end supply chain, which are vital to Australia's economic prosperity, social wellbeing and international competitiveness.

In particular, our recommendations are focused on:

1. **Eliminating anecdotal and potentially self-serving information from the efficiency and productivity debate;** and
2. **Developing a shared focus on the infrastructure requirements to support our economy and evolving industry needs.**

About Port of Melbourne

Domestically, as Australia's largest general cargo and container port, Port of Melbourne is a vital trading gateway for south-eastern Australia, facilitating more than one-third of the nation's container trade and playing a critical role as a key driver of economic activity.

As the custodian of the port under a 50 year lease, the shareholders of Port of Melbourne comprise some of the largest and most experienced global infrastructure investors with wide-ranging expertise in managing significant infrastructure assets. They include Queensland Investment Corporation (QIC), Future Fund, Global Infrastructure Partners, and Ontario Municipal Employees Retirement System (OMERS).

Our shareholders are long term investors and, as such, make investment decisions in generational terms, understanding the strategic providence of the port and its place in the national supply chain.

We contribute to Australia's economic prosperity by facilitating the flow of container trade in and out of the country. Port of Melbourne is central to the freight and logistics industry in south-eastern Australia; we serve as the key domestic and international trade gateway for Tasmania and play a critical role in supporting regional

exporters. Working closely with our partner tenants and port users has proved vital in managing supply chain challenges during COVID-19, and improving the efficiency of our port freight supply chains will be important to the nation's post-pandemic economic recovery.



Port of Melbourne is a vital trading gateway for south-eastern Australia

The Port directly contributes 19,600 jobs and \$6 billion to the Victorian economy each year and is committed to servicing the Victorian economy. PoM is focused on investing in infrastructure to cater to future trade and supply chain capacity demands to support the efficient movement of goods through the port-related supply chain for the benefit of businesses, consumers and the broader economy.

Growing and Maintaining Port Capabilities

PoM has stewardship responsibility for the Port to be a major seaborne trade gateway to the benefit of the State's economy.

Port of Melbourne is Australia's busiest container and general cargo port, handling more than one-third of the nation's container trade. The Port is a major business gateway and handles Australian imports and exports, a number of Tasmanian trades, and cargoes moved to and from South Australia and southern New South Wales.

PoM has been entrusted by the Victorian Government to manage and enhance the operations of the Port over the term of the 50-year Port Lease. PoM operates the Port within a context of stringent statutory, regulatory and contractual commitments.

The Port Lease establishes PoM's overarching stewardship responsibility to manage, maintain, operate and develop the Port to be a major seaborne trade gateway to the benefit of the economy of the State.

These stewardship obligations guide PoM's planning and investment. PoM's framework for, and approach to, investment considers what is in the best interests of the Port and Australia as a whole. Ultimately, PoM makes investment decisions within a well understood regulatory context, ensuring these investments are prudent and efficient and optimise whole-of-Port outcomes for the benefit of the economy of the State.

At Port of Melbourne, we are focused on providing world-class port facilities and services, and we are committed to investing in Australia's supply chain infrastructure, to enable efficiencies and productivity that support our economic future and respond to trade needs over the short to long-term.

Since privatisation of the Port in November 2016, PoM has invested more than \$370 million to support trade growth and delivered a \$9.7 billion dividend to the Victorian community. We are focused on providing world-class port facilities and services when they are needed, and we are committed to investing in Australia's supply chain infrastructure to drive efficiencies and productivity that support the state's economic growth, job creation and social prosperity.

Our 30-year Port Development Strategy provides a clear plan to meet and enable sustainable trade growth over the long term by driving prudent investment and exceptional innovation across PoM's operations, with ultimate benefits for the economy and community at large. PoM's capital expenditure program of some \$1.5 billion over the next 20 years will provide the capacity required at the Port to meet and support south-east coast trade activity.

It is critical that Port of Melbourne and other Australian ports are able to continue to invest in critical port infrastructure to support Australia's international competitiveness and supply chain productivity. However it is not only ports that need to invest. Port freight supply chain efficiency is highly dependent on both private and public infrastructure investment, and in terminal capacity - supporting landside logistics and infrastructure networks – to ensure freight can move efficiently from end to end.

Without ongoing and timely investment, a congested and capacity-constrained port would significantly impact the Australian economy and ultimately Australian consumers, through costly inefficiencies in the supply chain and hampered trade growth.

Regulatory Framework

PoM operates within a regulatory framework that is intended to provide certainty and support for capital investment, while affording flexibility for innovation.

Within this context PoM is focussed on promoting the efficient use of, and investment in, services for the long-term interests of port users and consumers. PoM is focused on investing in and providing the facilities and infrastructure needed to enable an efficient, productive and competitive port system – one that can accommodate the increasing number of challenges such as larger vessels while growing trade volumes for all importers and exporters.

The structure of the regulatory framework and PoM's commitment to meeting the objectives of the regulatory regime have achieved positive outcomes for Port stakeholders and the Victorian community in the first review period:

- Major investments have been made in renewing and rehabilitating infrastructure, developing rail capability and improving services;
- Service standards have improved through targeted investments and operating solutions, including Swanson Dock investments to support handling of vessels that exceed the vessel size limits in place at the time of the PLT in 2016; and services;
- Our operations are more efficient than pre-lease with operating costs well below prior levels.

This has been achieved in an environment where users have certainty over prices, which have generally remained unchanged in real terms and will continue to do so under the Tariff Adjustment Limit (TAL).

Contemporary Supply Chain Issues

While in general, Australia's supply chains have held up well during the COVID-19 pandemic, this is no time for complacency. There has been significant pressure placed across the industry, with many sectors left vulnerable. We need to learn from the challenges experienced through COVID and leverage the opportunities and adaptability demonstrated by our supply chains to drive efficiency and build resilience to support our economy.

We must now focus on building long term resilience and productivity into our port freight supply chains and invest in capacity and productivity enhancements that will position Australia for the future.

Summary of Recommendations

The following summary of recommendations is drawn from Appendix A which provides a detailed response to the matters raised in the Inquiry Terms of Reference and in response to discussions with representatives of the Productivity Commission as part of the Inquiry process.

1. Modernise measurements of port supply chain productivity (Scope Item 1)

Industry needs consistent, reliable and contextually relevant supply chain performance measures that go beyond port throughput and productivity and assess performance of the end-to-end supply chain. These measures are critical to support investment decisions and identify realistic opportunities to improve supply chain efficiencies.

Recommendations

- 1.A** The Federal Department of Transport (or other relevant body) should be tasked with engaging with industry to consolidate consistent, reliable and contextually relevant end-to-end supply chain metrics.
- 1.B** Industry should be encouraged to participate in the development and adoption of appropriate supply chain metrics.
- 1.C** Industry should be encouraged to contribute relevant data to enable timely publication of supply chain metrics.

2. Plan now to be able to service Australia's long term trade growth needs with a view to improving Australia's attractiveness as a market for large scale global supply chain operators (Scope Item 2)

Australia is still a relatively small market by international trade and shipping standards, and we need a stronger strategic focus on our global positioning to ensure that Australia is appropriately positioned to respond to growing trade demand and changing market dynamics.

PoM has a strong focus on planning for and investing in port projects to maintain efficient operations, respond to changing market dynamics and capacity needs. Recent disruptions and congestion at both the global and local level has demonstrated why we need an ongoing focus on these issues – our infrastructure and supply underpin our economic prosperity. Ongoing investment in infrastructure is a necessary part of ensuring Australia's resilience and productivity.

Recommendations

- 2.A** Federal and State governments need a clear policy framework that encourages private sector investment in capacity, productivity and efficiency to support economic growth.
- 2.B** Promote the use of consistent, reliable and contextually relevant supply chain measures to support planning for and delivering investments.

3. Regulatory and investment certainty must be provided if we are to encourage private sector investment in our ports (Scope Item 2)

Enabling private sector investment in port infrastructure to accommodate big ships, improve efficiency and productivity and deliver capacity enhancements will require regulatory certainty and priority being given to achievement of long-term economic outcomes over accommodating short-term commercial interests.

Recommendations

- 3.A** Policy, strategic and statutory planning and regulatory support is needed to enable ports to deliver development plans to support the required investment in capacity and productivity.

4. Protect our critical freight infrastructure and transport networks from urban encroachment and unnecessary constraints (Scope Item 2)

With the forecast freight demand and increasing demands on shared infrastructure – it is critical that the port freight supply chain is able to operate efficiently and flexibly 24 hours a day / 7 days a week.

Recommendations

- 4.A** Adopt appropriate land use planning controls that ensure ports and associated road and rail connections are protected from urban encroachment and potential future operational constraints. This requires a significant elevation of protection than is currently in place at most ports.

5. Facilitate the investment that will address port congestion and ensure Australian ports can accommodate the global trend towards big ships (Scope Item 4)

Industry needs are evolving and changing. From the introduction of containerisation to the changes in global ship fleet configuration and more recently changes in response to COVID, our industry and market will continue to evolve. Our port infrastructure must keep pace with these changes and we must deliver the capacity and configuration that will best service our trade needs, when it's needed.

Recommendations

- 5.A** Use the improved transparency of information and supply chain metrics to support investment decision making.
- 5.B** Government agencies and departments (both Federal and State) should work with ports to share and provide data to plan ahead for future trade growth and mitigate supply chain disruptions.

6. Review barriers to adoption of new technology, innovation and port automation (Scope Item 5)

Our local response to the global pandemic has demonstrated the agility of our supply chains and the opportunities for innovative technology that is driving increased productivity at international ports and across the broader supply chain.

Recommendations

- 6.A** Australia should review barriers to adoption of productivity-focused technology and find ways to incentivise investment given the increase in reliability, efficiency, safety and security that it can deliver.

7. Increase transparency of supply chain costs and charges (Scope Item 5)

Cargo owners have faced steep cost increases in recent COVID-impacted years, yet costs and charges across the supply chain remain opaque to end users. Increased transparency will strengthen confidence in the system and improve certainty for Australia's importers and exporters.

Recommendations

- 7.A** Develop and publish national data systems that promote transparency of supply chain costs and improve decision making across the supply chain.
- 7.B** Where appropriate, consider the role of regulation in ensuring certainty of costs across the supply chain.

8. Continue to invest in national infrastructure connectivity that will move more freight on rail
(Scope Item 6)

Moving more freight on rail has long been recognised as a critical element in creating greater resilience and building more sustainable port freight supply chains for the future. Ensuring we have the right infrastructure connectivity, network capacity and operating frameworks in place to encourage private sector investment in rail and enable rail mode shift will be vital.

Recommendations

- 8.A** Seek ongoing alignment across government and private supply chain operators in the delivery of Inland Rail, the Port Rail Shuttle Network and PoM's Port Rail Transformation Project.
- 8.B** Urgent action is required to commit to the Western Intermodal Freight Terminal (WIFT) as a priority and provide certainty to industry on the required land use protections and delivery timing.
- 8.C** Continue to progress the Outer Metropolitan Ring / E6 including finalisation of the reservation, planning and funding to deliver.
- 8.D** Plan for rail connectivity to Webb Dock.



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1. PORT PERFORMANCE AND BENCHMARKING

1.1 Understanding the Port of Melbourne

1.1.1 50 Year Lease of the Port of Melbourne

For several decades, successive state governments in Australia have undertaken large scale regulatory and business model reforms of ports. This has resulted in restructuring them from government statutory authorities, providing a public utility and responsibility for basic port functions (including pilotage, pollution control and marine safety issues) to efficient, commercial and competitive businesses. Generally this has been achieved first through corporatisation, and then to various extents privatisation.

In Victoria, the 1996 privatisation of the Ports of Geelong and Portland raised \$49.6 million for the State Government. In the case of Port of Melbourne, in October 2016, the Port's commercial operations were leased to the Lonsdale Consortium for a term of 50 years for more than \$9.7 billion. This \$9.7 billion was invested by the State into major capital works projects, many of which are still under construction. These include, among other things, transport infrastructure, level-crossing removals, and road and rail tunnelling. In addition to the capital that was accessed through the 50 year port lease, the terms of the lease required that the Port operator develop and implement a Port Development Strategy and Rail Access Strategy to outline how Port of Melbourne will expand and grow its operation to meet the needs of the Victorian economy and support the demands of a growing population.

Port of Melbourne Operations Pty Ltd (PoM) operates the Port within a context of statutory, regulatory and contractual commitments established under the Port Lease Transaction (PLT). The PLT delivered several legislative amendments to support the contractual arrangements established with the State.

Error! Reference source not found. overleaf describes PoM's obligations under the PLT, which exist in the form of:

- **Statutory context** - PMA sets out the key objectives related to regulation of PoM's services, and an inquiry function for the ESC to review PoM's compliance with the Pricing Order;
- **Contractual context** - PLT transaction documents, which are agreements between PoM and the State, define and provide oversight of PoM's overarching obligations to develop, invest in, and manage the Port; and
- **Regulatory context** - Pricing Order under the PMA sets out the Pricing Principles that PoM must apply when setting prices for prescribed services.

The stewardship obligations of the Port Lease are of significant importance and guide PoM's planning and investment. As identified in *Figure 1* overleaf, the Port Lease establishes PoM's overarching stewardship obligations to manage, maintain, operate and develop the Port consistent with Port Lessor's Port Objective for the Port to be a major seaborne trade gateway to the benefit of the economy of the State.

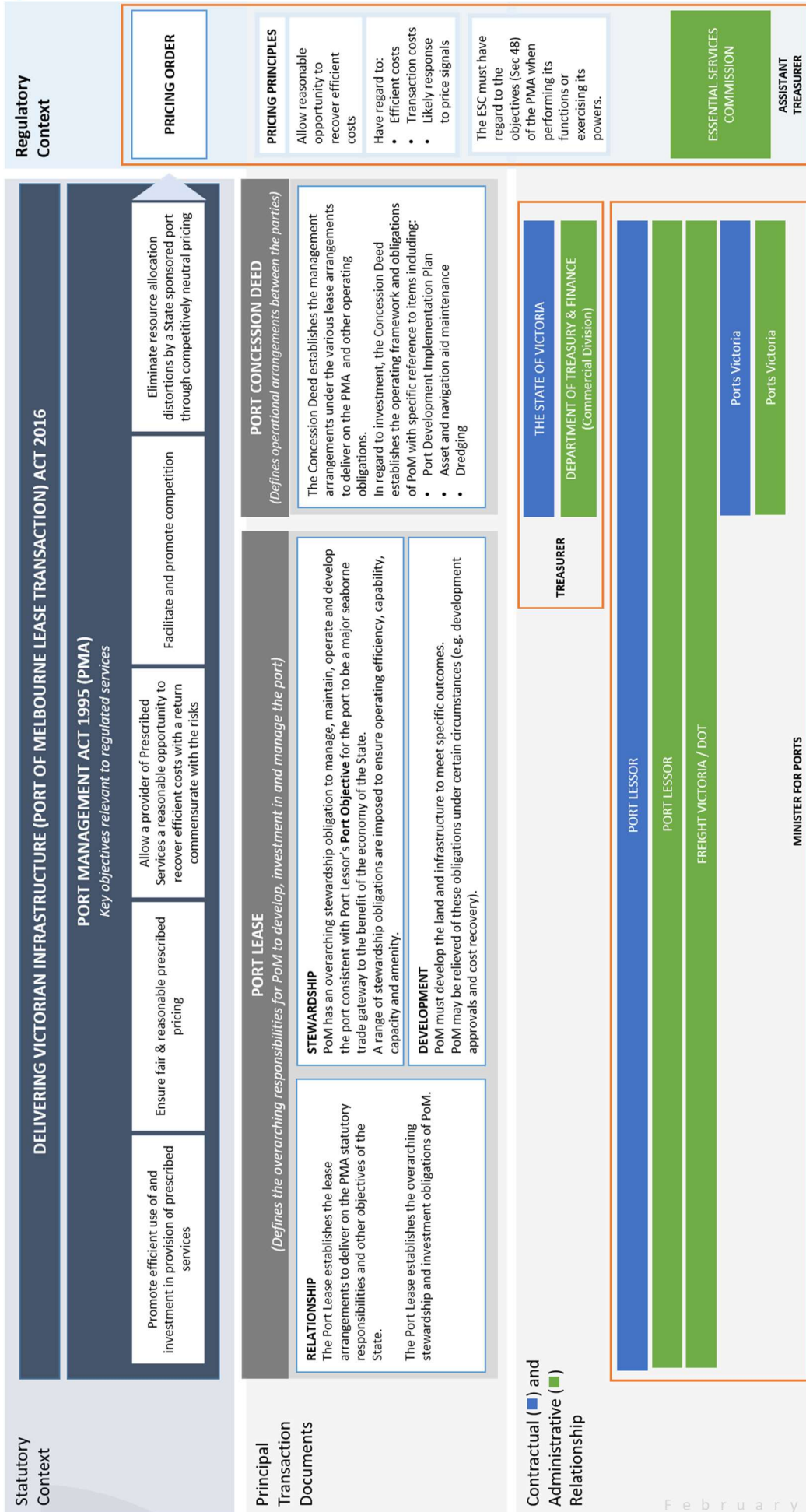
Under these stewardship obligations, PoM must:

- Manage, operate and maintain the Port in accordance with Good Operating Practice¹
- Ensure the Port is capable of providing access to shipping including able to reasonably accommodate changing vessel size
- Ensure port infrastructure is no less capable of access for road and rail than as at the commencement of the Port Lease
- Use reasonable endeavours to maintain amenity, manage environment impacts and maintain public open space areas.

¹ Where 'Good Operating Practice' means: adherence to a standard of practice which includes the exercise of that degree of skill, diligence, due care, prudence and foresight which would reasonably be expected of a reasonably experienced, competent, prudent and qualified operator of the Port; and provision of appropriate services and facilities for the ease of access to, expeditious and safe movement in and efficient use of the concession area and port infrastructure by vessels, vehicles and other users of the Port.



Figure 1 – Scope of obligations and working relationships



The Port Lease also includes a general obligation for PoM to develop the leased area (**Development Obligations**), under which PoM must develop the Port land and infrastructure to:

- Cater for actual and reasonably anticipated growth
- Provide quality and efficiency standards expected of a major port
- Maintain the Port’s leading position among major Australian ports in terms of its quality, efficiency and effectiveness
- Comply with good operating practice and applicable laws
- Achieve the Port Objective.

PoM may be relieved of its Development Obligations when:

- Development approvals or occupation rights cannot reasonably be secured
- Development is inconsistent with growing trade in a sustainably manner or optimising port infrastructure
- Financing market results in uneconomic development
- Under the Pricing Order, capital costs incurred by PoM acting prudently, would not be efficient and not able to be reasonably recovered.

1.1.2 Future Port Development

Port of Melbourne released the 2050 Port Development Strategy (2050 PDS) in late 2020; a roadmap for the future development of the Port. It outlines the high-level plans and approach for developing the capacity and efficiency of the Port for the next 30 years, while also providing a planning framework which is adaptable and responsive to changing needs over time. PoM will provide the necessary investment to undertake the capital works necessary to deliver the goals of the PDS.

Below is a breakdown of Port of Melbourne’s capital expenditure already undertaken over the last 5 years.

Period	Amount
FY17 - Nov 16 to June17	\$40 million
FY18	\$60 million
FY19	\$70 million
FY20	\$115 million
FY21	\$50 million
FY22 - December YTD	\$35 million
Total	\$370 million

A specific example of the works undertaken by PoM are improvements to Swanson Dock to rehabilitate the infrastructure and enhance the capacity to handle big ships, including:

- \$83.0 million incurred across FY18 to FY21 on Swanson Dock East;
- \$8.2 million incurred across FY19 to FY20 on Swanson Dock East and Swanson Dock West for 150 tonne bollards upgrade;
- \$10 million in capital dredging; and
- \$47.5 million plus \$60 million over FY22 and FY23 (\$169.4 million in total) on the Swanson Dock West remediation project.

Section four of this submission, “Infrastructure Needs and Constraints” further defines the major capital works programs currently being undertaken by the Port of Melbourne.

1.2 Benchmarking Internationally

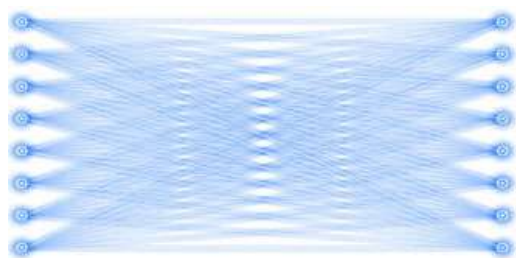
It is unfortunate that much of the current debate, when benchmarking productivity of ports and supply chain efficiency, is focused on the relevant merits of the methodology applied and selective use of numbers and international benchmarks to imply fact. We would rather see the efforts of this debate focused on identifying port and supply chain productivity opportunities – but we can only do this if we have a suite of transparent, reliable and contextually relevant metrics.

1.2.1 Understanding Context - Transshipment Versus Destination Ports

Container shipping lines use a "hub" and "spoke" model of transport to connect the world's ports, in much the same way that international aviation designates certain airports as hubs for the movement of people. The opposite of a "hub" or "transshipment" port is an "origin" or "destination" port whereby large volumes of containers either originate from, or are destined for, a seaport. The Port of Melbourne is a destination port, at the end of a series of shipping routes that often involve transshipment ports like Singapore, Shanghai, Shenzhen, Busan or Hong Kong.

The comparison of destination ports like the Port of Melbourne, with international transshipment ports is not an appropriate comparison, the form and function of these ports being unique to the role they perform. Transshipment ports operate by many small feeder vessels bring containers to that port. These containers then get reloaded loaded onto large vessels which will then carry the shipment to their final destination.

Destination ports, on the other hand, must unload and often reload a vessel, as well as manage the distribution of containers to the cargo's owner, via road and or rail, and often involving inland hubs. The value of transshipment lies in that it is more cost efficient and time saving than the vessel making a single direct voyage, but the two port models play a different role in the supply chain.



If each vessel sails direct to every port, the number of journeys made will look like the above.



If the vessels tranship via a transshipment port, the number of journeys is significantly reduced.²

1.2.2 Balanced Metrics

When assessing the performance of ports, a broad assessment is required that balances stevedoring throughput metrics (i.e. throughput productivity) and the resilience of ports as a whole in a disrupted supply chain, giving due consideration to their ability to take an agile and proactive approach to the rapidly changing needs to keep the broader supply chain moving.

PoM's agile and proactive approach to the management of the various pandemic driven supply chain challenges has proven critical to keeping the economy moving. Despite the empty container supply chain issues, stevedoring staff shortages (particularly during the delta wave), industrial action and surges in trade demand, the Port of Melbourne has remained resilient and quickly adapted to the needs of the economy.

Selective use of certain metrics from individual components of the supply chain without giving consideration to how the port freight supply chain is operating as a whole is fraught with danger and can misrepresent operations and productivity.

² <https://www.singaporepsa.com/about-us/core-business>

As an example, Port of Tauranga is used as a benchmark port, as it is comparable in size, throughput, and relative geography to Australian Ports. ACCC’s comparison to the Port of Tauranga and other individual New Zealand ports focuses on stevedoring metrics, and does not give due consideration to the consequential port congestion that may occur as a result of supply chain disruptions. Although crane rates (containers moved by crane per hour) may be higher at Tauranga, it is susceptible to higher levels of vessel queuing³ and has less resilience with “severe” infrastructure constraints⁴ than what has been demonstrated in Australia during the COVID-19 disruptions.

Like for like comparison is important. Recent port capacity modelling showed that Port of Melbourne stevedores have relatively short dwell times compared to global norms and are working hard to maximise the capacity of their terminals. When looked at holistically, Port of Melbourne has demonstrated itself to be a benchmark port both domestically and internationally. Productivity at Port of Melbourne exceeds the averages for regions with a comparable trade (import dominant) and operational/competitive environment (independent stevedores/global terminal operators). This is highlighted in *Figures 2 – 4*, with PoM’s terminal productivity being 25% - 50% (TEU/meter of quay line) more efficient, driven by higher investments in berth infrastructure with operational practices achieving higher quay crane productivities of between 25% - 55% (TEU/Quay Crane) and up to 25% more quay cranes per meter of quay line.⁵ While crane rates have remained consistent over the last decade, investment has continued to deal with increasing ship sizes and growing port volumes. PoM cautions against overly optimistic views on capacity above world benchmarks as indicated by *Figures 2, 3 and 4*, as this can result in unrealistic performance standards, congestion and less resilience to disruption.

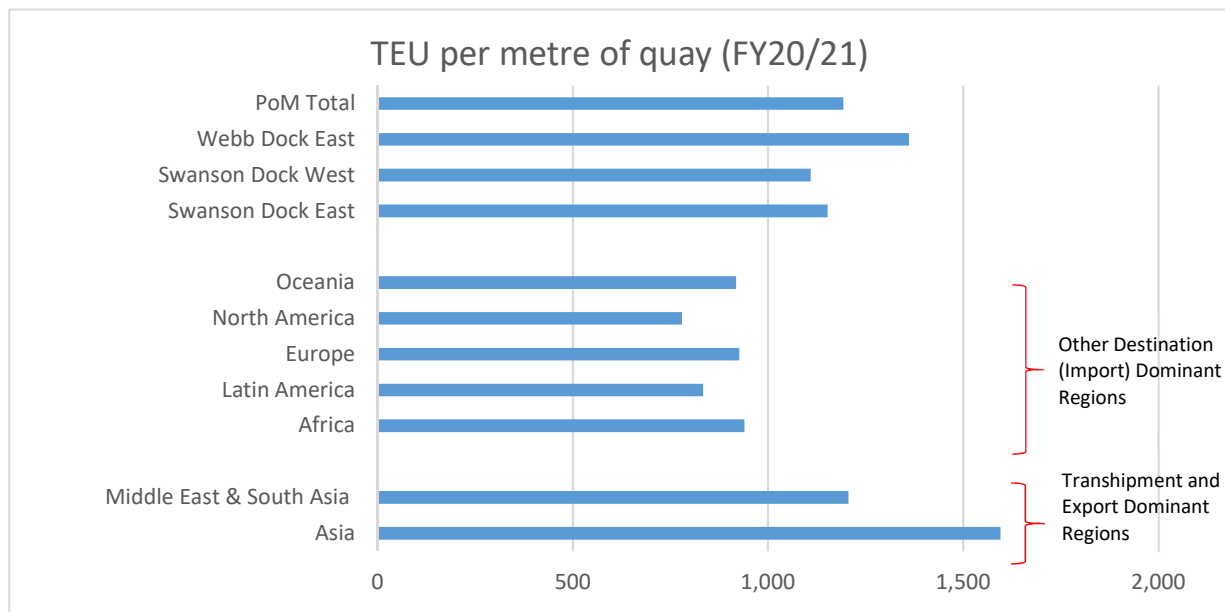


Figure 1: Comparison of PoM berth productivity vs regional averages for Global Terminal Operators (Drewry, 2021)

³<https://www.nzherald.co.nz/bay-of-plenty-times/news/congestion-at-port-of-tauranga-19-ships-waiting-to-berth-due-to-international-supply-chain-disruption/UOFXGHSPU6QWRLZP2LYBL5M2XM/>

⁴<https://www.nzherald.co.nz/business/tauranga-ports-frustration-a-sign-of-severe-constraints-on-infrastructure-providers-commission/BRHE77RIPVXSQDKKUUKEUYPI/>

⁵ Table 2.12, Global Container Terminal Operators Annual Review and Forecast - ANNUAL REPORT 2021/22, Drewry Maritime Research, 2021

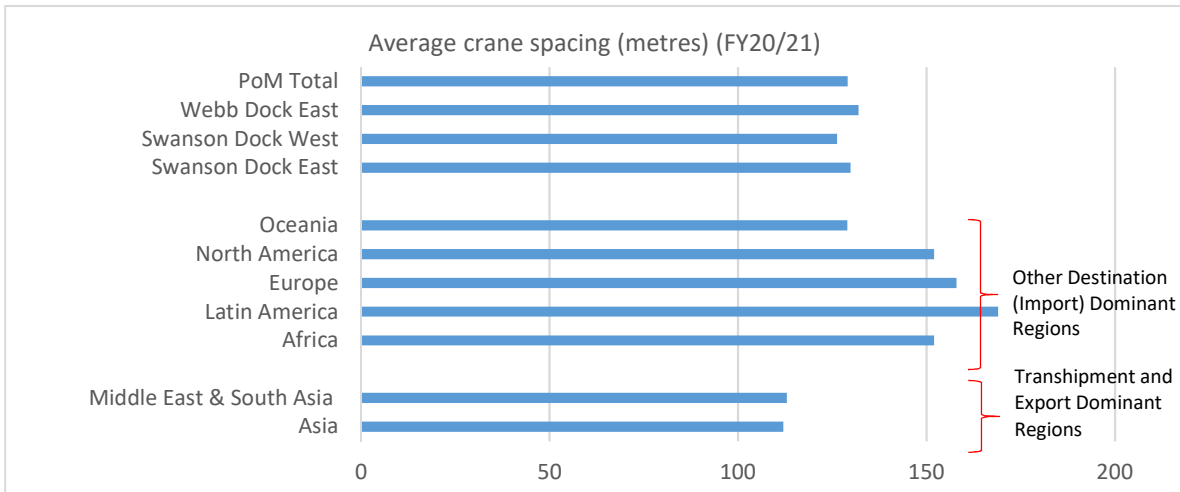


Figure 2: Comparison of PoM crane spacing vs regional averages for Global Terminal Operators (Drewry, 2021)

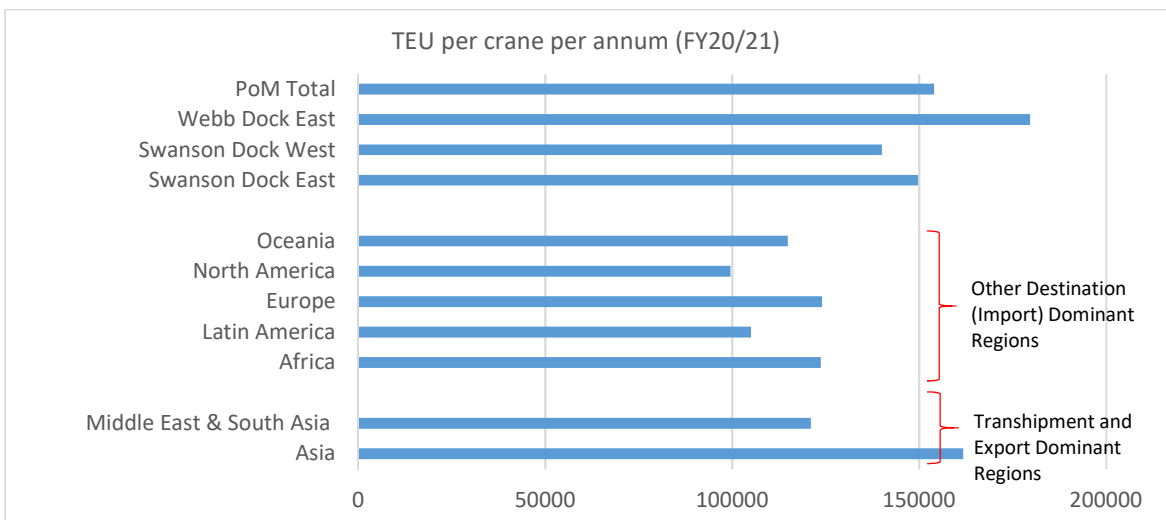


Figure 3: Comparison of PoM crane productivity vs regional averages for Global Terminal Operators (Drewry, 2021)

1.2.3 Understanding Benchmarks

Overall, although there has been productivity improvement at Australian ports, the Australian Competition and Consumer Commission (ACCC) noted that various benchmarks show that productivity improvement has stagnated in the past decade and Australian ports are lagging behind its international counterparts as shown through the World Bank Study and UNCTAD data. Regarding benchmarking, Port of Melbourne has critical points to make.

Major northern hemisphere routes have different productivity rates compared to Australia, particularly when examining mega ports with massive ships operating Asia to North America and Asia to Europe routes. Many transshipment routes enjoy 100 per cent cargo on and 100 per cent cargo off. Comparing Australian destination ports with overseas export ports and transshipment ports with 100 per cent cargo exchanges is erroneous; because Port of Melbourne is predominately a destination port, and whilst Melbourne enjoys a higher trade balance between import and export containers (than other Australian container ports) the Australian market imports far more containers than it exports. This imbalance of container demand has implications for different port productivity measures. For example; the residual empty containers must be accommodated for by way of empty container parks, additional container movements both landside and on export ships which can affect normal productivity measures; such as waiting times for berths.

It is vital that governments understand the full picture of the supply chain under assessment; rather than selectively using data that is not directly comparable and confounds an already complicated assessment of the operating performance of our supply chains. For example, a useful measure of productivity in Australian ports is berth utilisation (the percentage of time a berth is occupied by a vessel, or vessels, compared with the total time the berth is available in the year) – 65 per cent utilisation during peak periods is nearing the theoretical full potential for efficiency according to Queuing Theory analysis⁶ and beyond this, it can be expected that other areas of the supply chain will be experiencing congestion constraints.

Shipping lines have told the ACCC they have had a poor experience at the Australian container ports over the past few years. Some shipping lines have described the Australian container shipping market as characterised by high costs and major disruptions at ports, container terminals and empty container parks. While the ACCC acknowledged in its report that these comments are supported by international studies, it did not state whether they were comparing against transshipment hub ports which have a different operating profile from gateway ports⁷.

As noted, in the Australian market, empty container management is a vital component of the port freight supply chain and must be closely managed. Around 40 per cent of PoM’s international and mainland export container trade is typically empty containers. These containers are transported to the Port from a number of empty container parks located in and near to the Port, and in the western suburbs five to ten kilometres from the Port. These parks predominantly manage the logistics related to international containers owned or leased by shipping lines. Although empty containers require additional supply chain infrastructure, they are not in and of themselves a hindrance to productivity. To the contrary, bulk runs of empty containers combined with short dwell times can improve the capacity of the international container terminal from a storage perspective.

1.2.4 Big Ships

An examination of container ships between 2007 and 2020 show that in 2007, the largest ships servicing Port of Melbourne were around 5000-6000 TEU. Fast forward to 2022 and ships sizes bigger than 8500 TEU are on the horizon and increasing. Current shipping fleet forecasts suggest a strong transition to the utilisation of vessels in the 8,000 TEU capacity class in the short to medium term, and utilisation of vessels in the 11,000 TEU+ capacity range in the medium to long-term. Irrespective their size, cargo ships typically have a lifespan of around 20 years; the sector of the ship fleet that serviced Melbourne and Australia (5000 to 8000 TEU) has been declining for quite some time and being replaced with ships of 9000+ TEU. The fact is, the characteristics of the ship fleet deployed in the Australian market is changing *Figure 5*.

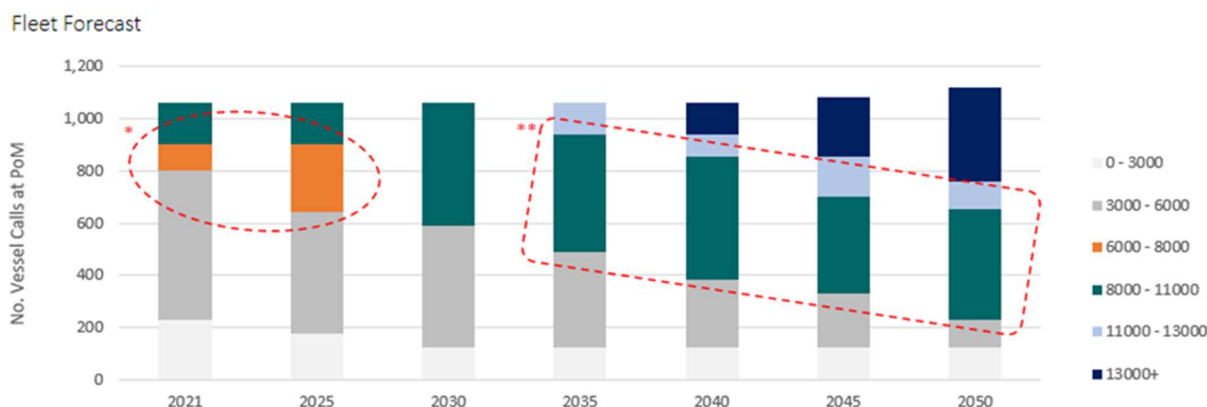


Figure 5: Fleet Forecast highlights the transition to the utilisation of vessels in the 8,000 TEU capacity class in the short to medium term, and utilisation of vessels in the 11,000 TEU+ capacity range in the medium to long-term.

Dealing with ship size is a genuine concern for PoM; not to the extent that Australia needs to accommodate the largest ship sizes in the global fleet – the Australian market lacks the size of Asia North America and Europe – but Australian ports do need to be able to handle the most efficient fleet classes of the future that will service our

⁶ The mathematical study of the formation, function, and congestion of waiting lines, or queues.

⁷ Australian Competition and Consumer Commission - Container stevedoring monitoring report 2020-21, 4 November 2021

trade. If we don't, shipping lines will likely need to build special ships to service the Australian market needs, which would result in significant shipping price increases, placing our exporters at a real disadvantage.

The current infrastructure at Webb Dock East International Container Terminal operated by VICT was designed to cater for two 300m ships concurrently. However, the size of ships has increased since Webb Dock East was designed and constructed, and we now see ships up to 350 metres LOA. As a result the terminal is often limited to a one berth operation if there is one ship over 300 metres.

In its report the ACCC noted that in Australia, approximately half of the container ships visiting Australia averaged a capacity of around 5,000 to 8,000 TEU or larger in 2017. In July 2020, a 10,662 TEU vessel was the largest to call at the Port of Melbourne⁸. The largest container ships that the Port of Melbourne, Port Botany and the Port of Brisbane can accommodate are in the range of 8,000 TEU to 10,000 TEU, fully loaded. There has been some recent investment made by ports and stevedores in Australia to accommodate larger vessels. Stevedores have told the ACCC that they have been investing in additional and upgraded equipment to have sufficient capability to load and unload these larger ships. For example, in 2019 Flinders Ports commenced a channel widening program to allow it to accommodate larger Post-Panamax sized container ships and in 2020 Patrick invested in larger cranes to service larger vessels (Liebherr cranes at Brisbane and Port Botany, and ZMPC Post-Panamax cranes at Fremantle and Melbourne).

Market participants have said that currently Australian terminals are not suitable for use with larger vessels and this is resulting in operational inefficiencies. Larger ships result in fewer ships entering ports, but more congestion as 2 berths may be taken up by one vessel (or 3 berths taken up by 2 vessels) at a time resulting in under-utilised quay line. The average size of the international container shipping fleet visiting Melbourne will continue to grow as Australian trade volumes grow and larger vessels are cascaded down from other shipping routes in order to optimise operating efficiencies. To date, the largest vessels to call at PoM occurred in 2020. These included a 10,600 TEU ship at Webb Dock and a 9600 TEU ship at Swanson Dock. Ships of this size did not call in 2018, and large ship visits grew by 10% between 2019 and 2020. Growth in vessel sizes is likely to continue.

There are a number of factors that are contributing to the increased deployment of larger ships in the Australian market – in particular, there are fewer ships available in the global fleet in the 5,000 to 8,500 TEU range. Increasingly, these vessels are being retired from service and there are no new builds in this size range.

Shipping Lines servicing the Australian market have limited choice on the size and type of vessel deployed and as such, there is an increasing number of larger ships being deployed.

It is important that Port of Melbourne keeps pace with industry demands, recognising that the recent trend to larger vessels is here to stay and that the increasing vessel sizes drive economies of scale across the industry, resulting in lower overall costs and enhanced competition which will deliver long term benefits to Australia.

Port of Melbourne has been working on a program to accommodate the larger vessels being deployed into the Australian market. Significant progress and investment has been made to date in Swanson Dock, enabling larger vessels to call up-river. This investment must continue across Webb Dock and Swanson Docks to ensure efficiency and productivity across all three stevedores, which is why PoM is extending the quay line at Webb Dock East to restore the operating capacity and efficiency of Webb Dock East to operate across two berths.

It's important to acknowledge that ports and stevedores view the issue of congestion from different perspectives. Port of Melbourne's 50-year lease includes a stewardship obligation – to deal with and reasonably anticipate demand and to support the economy. From Port of Melbourne's and cargo owners' perspectives, the cost of congestion is not acceptable – congestion costs incurred by shipping lines get passed through to the cargo owner.

1.2.6 Ship Rates Driving Growth in Productivity

Although crane rates (containers moved by cranes per hour) have stagnated, there has been significant productivity improvements since privatisation in 2016. PoM's proactive role in engaging with the shipping industry to meet their needs to utilise larger ships to drive economies of scales, outlined in *Figure 6*, has allowed shipping lines to transition to the utilisation of larger vessels.

⁸ Australian Competition and Consumer Commission - Container stevedoring monitoring report 2020-21, 4 November 2021

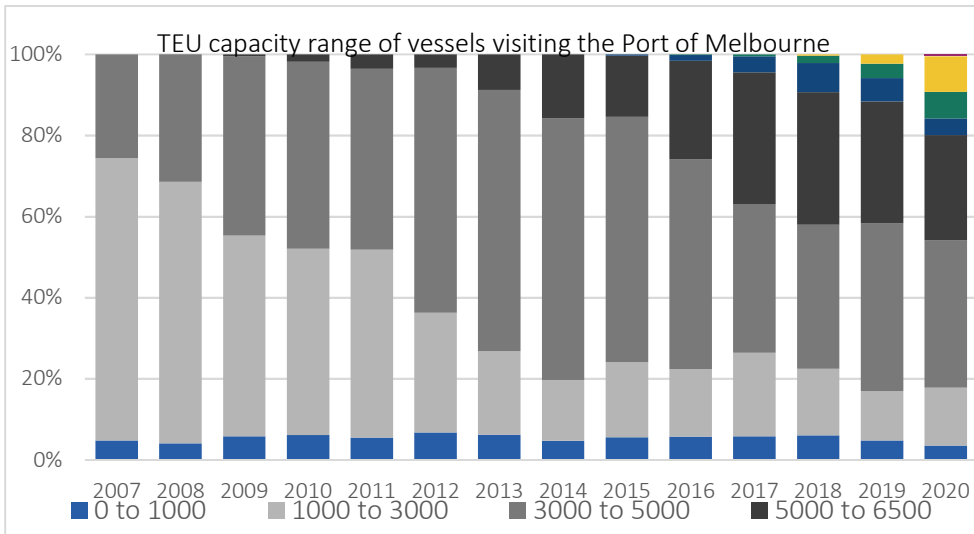


Figure 6: Historical changes in vessel mix at PoM.

As shown in *Figure 6*, there has been a significant increase in the utilisation of big ships over the last five years with the biggest ships now calling at the Port of Melbourne exceeding 10,000 TEU’s.

To enable these outcomes, the Port of Melbourne has been investing significantly at both the Swanson Dock and Webb Dock precincts to support this demand with further investment planned to keep pace.

In turn, this has led to a 26% improvement in the effective ship rate (containers/berth hour) and allowing ships to deploy fewer ships to meet the growing trades (refer to *Figure 7*)⁹. This transition in the utilisation of larger ships is expected to continue and will require further investment in new infrastructure.

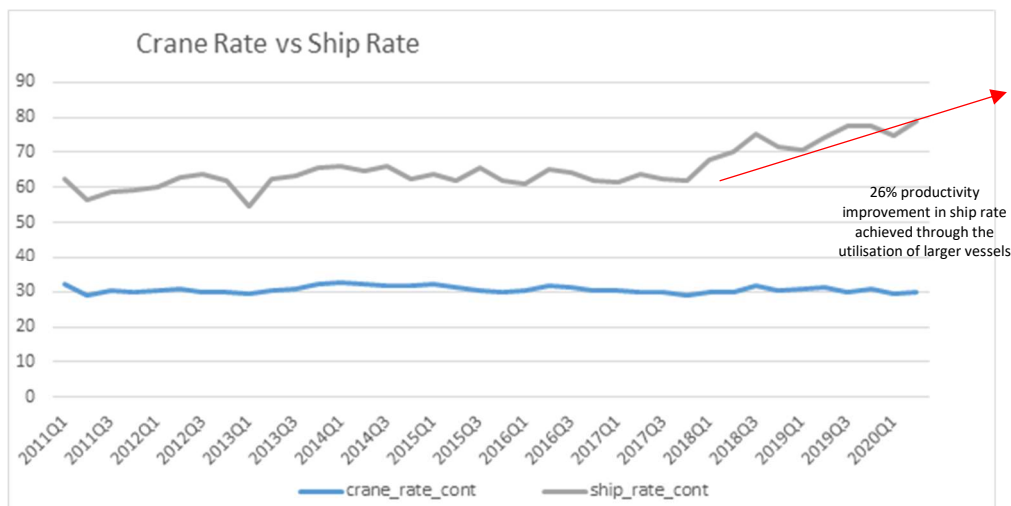


Figure 7: Ship Rates vs Crane Rates at PoM (BITRE, 2021). Despite stagnating crane rates, there has been a 26% productivity improvement in ship rates achieved through the utilisation of larger vessels (enabling higher crane intensities)⁶

This transition to the utilisation of larger ships brings a number of benefits including; improvements in port productivity, emissions efficiency gained from more efficient modern vessels being deployed in the Australian market, economies of scale and sea freight capacity. Supply chain performance measures should give consideration to how they support and encourage this transition. Any productivity metrics adopted need to give consideration to how they drive greater economies of scale and how they encourage investment in port infrastructure to capture these benefits.

⁹ Bureau of Infrastructure and Transport Research Economics 2021, Waterline 67, Statistical Report, Canberra, ACT

2. FACTORS OUTSIDE THE PORT GATE

2.1 Curfews

2.1.1 24/7 Operations

In the medium term it is forecast that up to 50% of truck volumes from and to PoM will need to be at off-peak times, predominantly at night. Our Container Logistics Chain Study showed that the transport industry is already acting as a capacity buffer for container staging and delinking port available slots in 24hrs versus customer delivery that tends to be Mon-Fri during the day. In the long term the Port relies on 24/7 operations in order to operate efficiently and maintain capacity.

While the Port and supply chains are 24/7 you can see the preference for weekday daytime operations (*Figure 8*). The Port is moving to greater out of hours volumes but the other parts of the supply chains are staying more weekday/daytime ops, especially at empty parks and for cargo owners.



Figure 8: Container Logistics Supply Chain Study - Operating Times.

This mis-match in operating hours can lead to inefficiencies across the supply chain (*Figure 9*). For example, 82 % of full import containers were staged at a Transport Depot:

- 40% of these were staged for less than 12 hours
- 57.5% staged for less than 24 hours
- Average time in depot – 1.9 days
- 40% of full export containers were staged at a Transport Depot and 17% were staged at rail intermodal terminals.

Transport companies are providing the bridge between 24/7 port times and preferred customer delivery/pick up time.

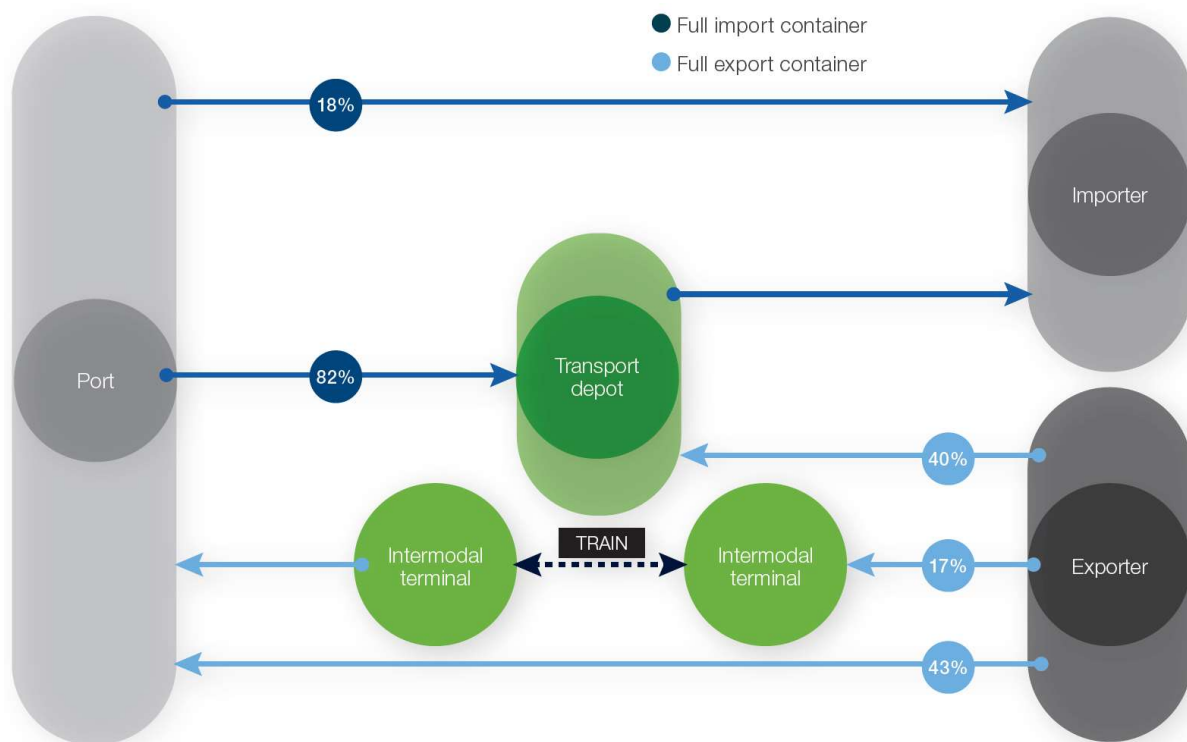


Figure 9: Container Logistics Supply Chain Study - Staging.

2.1.2 Relaxation of Curfews

During COVID-19 we saw a number of jurisdictions relax operational controls on freight movements that had been established in response to increased demand. These operational controls were recognised to restrict freight movements and were relaxed to enable the efficient movement of freight. We would strongly encourage a review of such operational controls and more systemically adopt appropriate strategic planning and planning framework changes to ensure operational restrictions are not imposed on our freight supply chains. This will remove inefficiencies in the supply chain network, allowing for the potential for productivity gains.

2.1.3 Trucks in Residential Streets/Trucks off Roads

94 per cent of full international and mainland import containers now go to metropolitan destinations – up from 87 per cent in 2009¹⁰. The majority of these containers currently travel by road, however it is a false preconception that all trucks carrying containers originate or are destined for the Port. A further misconception is that port trucks require access to residential roads. The majority of trucks on residential roads are servicing local freight task, or are moving containers between container parks. PoM is nonetheless committed to increasing the mode share of rail and therefore has proposed new rail infrastructure being delivered as part of the Port Rail Transformation Project. Critical to the widespread support for the Project is the independent leadership role that PoM proposes to play inside the Port gate to ensure an efficient and competitive port rail solution.

Peak government and industry bodies also acknowledge the potential for flow on benefits from both community and economic development perspectives, including the environmental and amenity benefits (trucks off roads and fewer emissions) along with the efficiency and capacity improvements that will benefit Australia’s economic development agenda.

¹⁰ Container Logistics Chain Study (CLCS), Port of Melbourne, July 2021, <https://www.portofmelbourne.com/wp-content/uploads/Port-of-Melbourne-2020-Container-Logistics-Chain-Study-Report-Web.pdf>

2.2 Urban Encroachment

2.2.1 Development Pressure

Urban growth and development is increasingly placing pressure on inner city industrial land in general, and the Port of Melbourne's city centre location and associated transport network connections. Changing social and environmental expectations of neighbouring communities has the potential to affect port operations and future development plans and the desirability of waterfront land for residential and office uses is intensifying. Land use challenges around the Port have become evident over the last decade in areas like Yarraville and Footscray, Fishermans Bend, Garden City, Docklands, E-Gate and Williamstown.

2.2.2 Stronger State Government Planning Controls

To safeguard the seamless movement of freight within the logistics and supply chain, a strong planning framework with strong land use planning controls is needed to ensure that any new use or development takes into account the potential effect of current and future port operations on the land and does not introduce incompatible activities that would prejudice the undertaking of efficient and effective port operations, based on both current and forecast future trade levels. The Victorian Government has made the commitment that the Port of Melbourne will remain in its current location by entering into the Port Lease until 2066 so in turn must strengthen the planning framework that surrounds the port (and its connecting transport links) to safeguard the current 24 hour, 365 day operations as well as achieving State policy certainty in providing the capacity needed to accommodate the growth in trade. Recent changes to the Planning Policy Framework identifying the Port of Melbourne as a 'Principal Transport Gateway' is a move in the right direction, however government now needs strong land use planning controls to support this policy.

There should always be strong links between the State and industry in the freight sector to allow for optimised planning. The State provides the majority of road and rail links but private industry provides all the equipment that moves freight and runs all the terminals. The three biggest ports are privately managed so if Victoria is to retain its competitive advantage in supply chain operations, there needs to be strong collaboration between the State and industry.

The key challenges to overcome in relation to the current statutory planning arrangements are outlined below:

1. Greater certainty is required on planning protections afforded to Victorian ports and protection from encroachment from incompatible land uses such as residential, education, child and elderly care centres, and the like..
2. Key transport connections to ports that support the end-to-end supply chain need appropriate statutory planning protections to offer certainty to industry, local government and the community.
3. Greater emphasis and commitment is required at the highest level to ensure the recognition of the role of ports and freight supply chains to the economy and to ensure that relevant operations are not compromised by individual and discrete planning decisions.
4. The statutory planning framework and supporting documents should be urgently expanded to protect future growth and development opportunities for the long term strategic benefit of the State of Victoria and all of its community. This includes for example; industrial land growth areas, transport connections and future development sites such as Bay West and Beveridge.

2.2.3 Urban Freight Planning Principles - Commonwealth

The Commonwealth has committed to lead development of National Urban Freight Planning Principles (the Principles) as a new action in the National Freight and Supply Chain Strategy. PoM has worked with government to ensure the Principles recognise:

- The primacy of state, territory and local governments in transport and land use planning;
- That freight and logistics networks are continuously evolving; and



- That industry support and ongoing engagement are crucial to capturing the potential benefits of any urban freight planning reform.

PoM has recommended further actions that could be taken to help deliver the Principles including:

- Protecting future growth and development opportunities for the long term strategic benefit of the State of Victoria and all of its communities. This includes, for example, industrial land growth areas, transport connections and future development sites such as Bay West, Truganina and Beveridge;
- Providing greater certainty on planning protections afforded to Victorian ports and protection from residential (and other sensitive land uses) encroachment;
- Safeguarding key transport connections to ports that support the end-to-end supply chain with appropriate statutory planning protections to offer certainty to industry, local government and the community, including both regional and metropolitan intermodal hubs; and
- Providing greater emphasis and commitment at the highest level to ensure the recognition of the role of ports and freight supply chains to the economy and to ensure that relevant operations are not compromised by individual and discrete planning decisions.

2.2.4 Collaboration between Governments

The success of freight systems in Australia depend largely on cooperation between all levels of government for implementation, and it is a reality that relationships between federal, state, territory and local governments fluctuate over time. The management of these relationships, and implementation of systems that cut through the government strata is essential to the success of any cross boundary projects and systems.

There have been examples of government initiatives aimed at addressing these issues, which provide certainty to the investing public, service providers and end users alike. Since its creation in 1992, COAG and now National Cabinet has been the peak intergovernmental forum in Australia. The Infrastructure Working Group in particular has been a useful vessel for championing the needs of freight at all levels of government.

For its part, PoM has also attempted to bridge the gap between the various strata of government, having made representations to Local government, (City of Melbourne Transport Strategy 2019) State Government, (Victorian Freight Plan 2018 – Transport for Victoria) and the Commonwealth through the National Freight Resilience Project and National Freight and Supply Chain Strategy. Also, PoM has made submissions to and supports Infrastructure Australia's Infrastructure Priority List promoting the 'Melbourne Container Terminal Capacity Enhancement', 'Port Rail Shuttle Network' and the 'Webb Dock Rail Link' proposals as key elements in our international supply chain.

As noted, PoM has also finalised a 30 year Port Development Strategy (PDS) developed through broad industry and public consultation. In developing the PDS, PoM engaged with industry and tenants and a number of themes emerged including:

- Whilst ongoing productivity improvements will ensure Swanson Dock remains a central focus of container capacity at the Port of Melbourne, Webb Dock is the preferred location for delivering the next significant tranche of container terminal capacity;
- Webb Dock requires a rail connection to support anticipated growth;
- Ongoing investment in rail capacity and capability across the Port is required to manage our reliance on the road network;
- The PDS needs to provide an advocacy platform with Government as a call to action. Port expansion tasks need to commence soon if capacity is to be delivered consistent with demand;
- Government partnership support is required to facilitate the delivery of projects for port growth; and
- Port planning needs to respond to changing user and industry needs.

The PDS feedback above shows that there is a need for continuous collaboration between Governments to ensure a connection of Inland Rail to the PoM especially in relation to rail access to the Webb Dock precinct where the next tranche of container terminal capacity will be developed.

2.2.5 The National Freight and Supply Chain Strategy

PoM supports the tenets of the National Freight and Supply Chain Strategy and National Action Plan, building upon and taking forward the context, information and framework which was developed for the *National Ports Strategy 2011* and *National Land Freight Strategy 2013*.

As an island nation, Australia is heavily dependent on ports to service the international trade demands of the country. However, ports are just one node in an overall freight supply chain that influences our competitive position internationally. Inland Rail interaction with the 20 year National Freight and Supply Chain Strategy provides better planning, coordination and regulation to enable improved supply chain efficiencies on Australia's rail system.

Fragmentation across the supply chain makes it difficult to interrogate supply chain performance and cost issues. The fragmentation also suggests that certain areas of the supply chain are unreasonably bearing costs of inefficiencies (for example over 80% of import containers are staged at a temporary location, usually a transport depot, before final delivery. This results in additional unnecessary movements, increased holding and throughput costs). Within this context, it is also important to recognise the significant influence that the shared use arrangements on our existing road and rail transport networks can have on delivering the freight productivity

objectives. Different users of the network have different demands and performance expectations, understanding these differences will be important when considering long term initiatives aimed at improving freight productivity across the total supply chain.

In order for a port to work effectively the landside freight and logistics operations, both road and rail, need to be efficient and productive. The continued growth in freight will place pressure on and challenge existing supply chains and whilst road transport will always play a dominant role in container movements, it is inevitable that rail will need to play a larger role with increased modal share over time. As volumes on rail increase, competing use of rail lines between freight and passengers will need to be addressed to ensure that there is sufficient policy, planning and operational solutions allocated for freight to improve freight access and movements. Furthermore, there needs to be surety that freight demand is integrated in transport and land use planning across and between jurisdiction boundaries and freight modes.

One of the overarching issues in relation to freight strategies raised is the lack of alignment between Governments and a lack of coordinated action across all levels of Government. The National Freight and Supply Chain Strategy aims to integrate all freight modes – road, rail, air and maritime encompassing all tiers of government and jurisdictions. This will provide a mechanism for Inland Rail to play a role in the movement of freight and efficient freight supply chains. In doing so, the National Freight and Supply Chain Strategy seeks to identify and develop a national approach to optimising the competing demands between freight rail and passenger rail, allocate appropriate freight capacity on shared networks, identify and protect future freight rail corridors and inland intermodal sites and integrate these into long term metropolitan and regional infrastructure planning. It should also provide priorities on all modes of freight transport to lower the unit cost of supply chains through an ‘end to end’ supply chain thinking approach to deliver Australia’s international competitiveness and role in global supply chains.

2.3 Planning for and Safeguarding Industrial Land

2.3.1 Existing Developments in the Port Environs

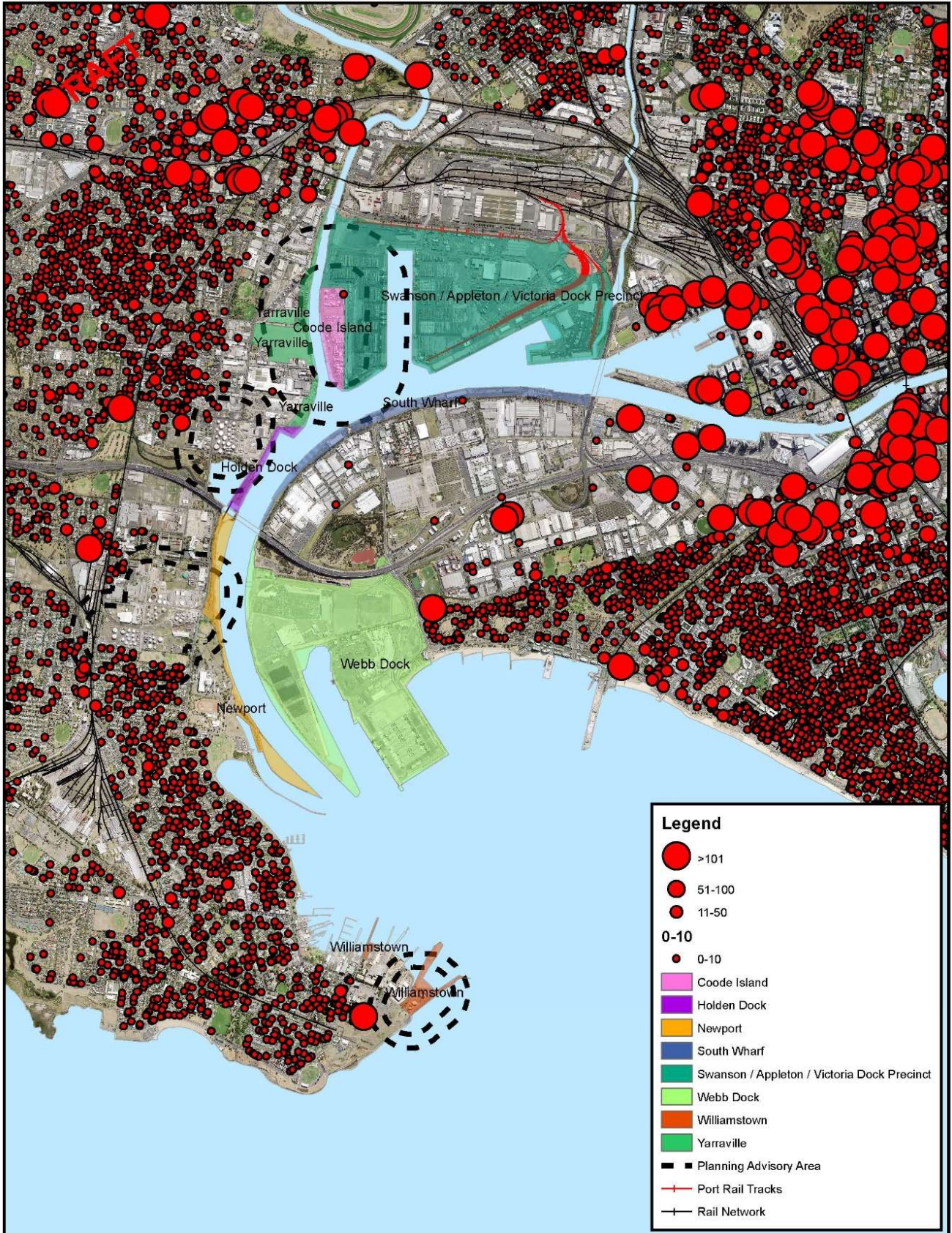
In the experience of PoM, incompatible land use and development has unfortunately already been approved due to inadequate planning controls which has allowed land use and development along the Port boundary in an area that is identified as the ‘Port Buffer’. The lack of strong planning controls allowed a Planning Permit for 122 dwellings at 187-201 Williamstown Road, Port Melbourne, adjacent to PoM’s Webb Dock Precinct, which currently accommodates 24/7 international container and automotive terminals as well as being earmarked as the future growth for international containers in PoM’s 2050 PDS.

State Government reviews of the Victorian Port System have acknowledged the particular pressures placed on the Port by encroachment, specifically the 2020 Independent Review of the Victorian Ports System concluded that stronger planning controls or set of controls for development applications in the port buffer were needed to protect the ports from encroachment on their operations.

“This is particularly pressing in the case of the Port of Melbourne which is the most vulnerable of the ports to urban encroachment (Overleaf, map of residential approvals in the land surrounding the port since 1999).”¹¹

Another example of encroachment can be found adjacent the Gellibrand Major Hazard Facility in Williamstown. In this instance several hundred dwellings have been built within or adjacent to the facilities “advisory area” a buffer area set out by WorkSafe which aims to limit development near hazardous facilities. The proximity of dwellings to the Gellibrand MHF has the potential to limit liquid bulk capacity. It is our preference that the onus or burden of compliance should rest solely with the agent of change, in this case the developer, and not on the existing infrastructure provider. Unfortunately this has not been the case on myriad occasions as demonstrated overleaf, “sensitive developments in Port Environs since 1999”.

¹¹ Independent review of the Victorian Ports System Final Report | November 2020 p72



Sensitive Development in PoM Environs since 1999

N

0 650 1,300 Metres

Port of Melbourne 1:40,000 @ A4

DISCLAIMER: Port of Melbourne gives no representation or warranty as to the accuracy, currency or completeness of the information it makes available. All liability is expressly disclaimed and excluded.

2.3.2 Existing Developments at Other Ports

Similar issues have occurred at the Port of Geelong. In 2018 a permit was considered for the conversion of a former power station building to a seven-level office building with a floor area of approximately 12,100 square metres at 50 Mackey Street, North Geelong. The City of Greater Geelong issued a notice of an approval in December 2018 with various objectors subsequently lodging an appeal with the Victorian Civil and Administrative Tribunal for a review of that decision. Although this permit was ultimately unsuccessful, it took the intervention of the Minister for Planning, following a Ministerial Advisory Committee to achieve this outcome. Such a protracted outcome provides no certainty nor any confidence for investors in port infrastructure and conversely for developers in the port buffer areas.

The strengthening of planning controls that provide certainty for managers of State significant infrastructure as well as speculative developers and the community, ensures that continued investment is targeted where it is most effective, while also allowing for the realisation of State Government planning policy. It has been State planning policy, since the introduction of Melbourne Airport at Tullamarine that it will be the premier airport servicing Victoria long term. Similar, State planning policy has the Port of Melbourne as the premier container port servicing Victoria long term. Unfortunately, the planning controls have not been updated to reflect this policy position and therefore there are not strong enough safeguards in the planning framework leading to the potential undermining of long term outcomes for the State of Victoria, in favour of short term windfalls for developers.

2.4 Fees and Charges

2.4.1 Regulated Fee Framework

Many PoM tenants have operated within the Port since prior to 2016 under or consistent with leasing arrangements established by the State operated port existing at the time of privatisation. Rents paid by our tenants are negotiated between PoM and tenants at the Port, they are validated by specialist independent advice and are consistent with relevant market rates. We follow standard market practices in establishing and administering commercial leases. Rent levels are consistent with the level of rents forecast by the State Government and its advisers at the time that the Port Lease was agreed.

The Port of Melbourne has also recently released a Tenancy Customer Charter (TCC), developed with the support of the Victorian Government. The TCC is a voluntary framework for tenants, designed to assist them in negotiating lease terms and conditions with Port of Melbourne that meet their bespoke operating needs whilst also delivering on the broad ranging obligations to the Victorian Government.

The COVID-19 pandemic has derailed the global container freight supply chain with intermittent and ongoing shocks across the supply chain draining spare shipping and port capacity. The supply chain has been constantly challenged needing to respond and adapt to multiple short term shocks.

In this context, the ACCC highlighted freight rates have surged across all shipping lines and cargo owners have few options. Container freight rates on the key global trade routes have increased from about US\$1,000 in May 2020 to around US\$7,500 in September 2021. Importers and exporters are both currently paying a premium to shipping lines to ensure their goods are delivered within a certain timeframe, with some attempting to outbid each other to secure capacity. Exporters in particular have to book at higher rates to secure capacity in order to service customers within their contracted time and may end up making a loss on the transaction overall.

Cargo owners have informed the ACCC that there are currently limited opportunities to save money by switching to another shipping line. All shipping lines have limited capacity and freight rates have risen across the board. Exporters have also told us that their ability to switch between competing services is limited by the need to make last-minute decisions in light of disruptions. Further, the point of origin or final destination of goods may limit the choice of shipping lines for cargo owners, as not all shipping lines service every port. This has been further exacerbated by the reduced number of services available and moves by shipping lines to rationalise their networks to optimise capacity and service levels in a globally constrained market. Southbound freight rates from China to Australian east coast ports also experienced escalating freight rates during the COVID-19 pandemic. Note: PoM data from shipping lines showed that from January 2020 to October 2021, south bound freight rates increased from around US\$940 per TEU to US\$4,050 per TEU.

The ACCC also acknowledged that shipping lines are not providing sufficient transparency of pass-through charges. As part of its consultation, the ACCC asked some cargo owners whether the shipping lines had passed through savings in quayside charges they pay to stevedores. A number of cargo owners were unsure as their bill did not separately itemise these charges, while others commented that they haven't observed any material decreases in those charges over the past few years.

Although PoM broadly agrees with the ACCC on this point, it should be noted that PoM wharfage rates, under the regulated regime, have only increased by CPI, which is much less than the increase in freight rates and terminal charges. *Figure 10* below compares PoM Wharfage rates to terminal fees over the last four quarters.

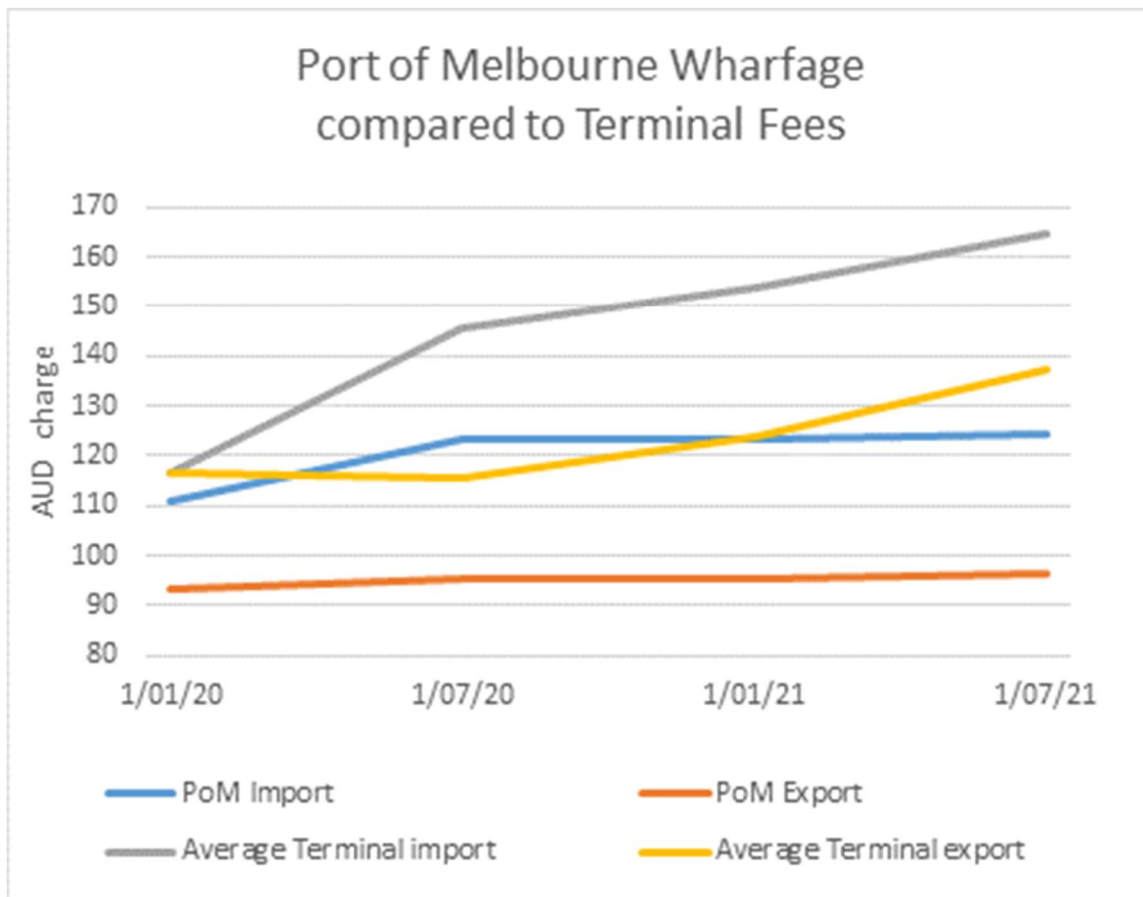


Figure 10 – Port of Melbourne Wharfage Fees Compared to Wharfage Fees

PoM is the only Australian Port, and only part of the container freight supply chain, that is price regulated. The regulated regime at the Port of Melbourne is working as intended. Since privatisation, PoM has invested over \$370 million in infrastructure and port prices have been maintained each year in line with CPI consistent with the Tariff Adjustment Limit.

PoM has a requirement under the Pricing Order to consult with Port Users and publish its annual Reference Tariff Schedule by 31 May each year. The transparency of PoM's pricing regime is very high.

The consolidation of shipping companies and formation of alliances has increased shipping lines' bargaining power relative to cargo owners and other service providers in the supply chain (particularly stevedores and empty container parks (ECPs)). This is because there are now fewer shipping lines and the shipping line alliance collectively has greater negotiating power.

Market participants have told the ACCC that the increased bargaining power of shipping lines has impacted on negotiations with stevedores and ECPs.

Cargo owners have stated that they have observed a decline in the level of competition between shipping lines over the past few years, even before the COVID-19 pandemic. Cargo owners also expressed concerns that shipping lines may be in position to charge higher freight rates due to greater bargaining power.

The ACCC indicated that competition between stevedores following the entry of Hutchison and VICT led to a significant fall in stevedores' quayside charges. Quayside revenue per lift collected from shipping lines has fallen by 27.6% over the past 10 years, but there was a 1.4% increase in quayside revenues in 2020-21, arguably due to increased volumes during COVID-19 lockdown.

To compensate for the loss of quayside revenues, stevedores have increased their Terminal Access Fees (TACs) and other landside charges over the past few years - there was a 16% increase in landside and other revenues per lift in 2020-21, while the proportion of total revenue that stevedores have recovered from landside fees and charges has increased from around 13% in 2010-11 to around 38% in 2020-21. The ACCC has qualified its findings by indicating that while stevedores now recover a greater proportion of their total revenue from landside operations than they did a decade ago, the bulk of the stevedores' revenue still comes from the shipping lines. A breakdown of the quayside, landside terminal access charges from Patrick, DP World and Flinders Adelaide Container Terminal are shown in the chart below.

PoM believes that the increase in quayside revenue last year can be partially attributed to shipping lines negotiating with different stevedores on the east coast to meet suitable 'windows' for their vessels to be serviced. Shipping lines have slowly moved away from procuring the same stevedore on the east coast especially where contracts have been renewed and as new shipping services enter this trade lane.

More concerning is that while landside revenue is increasing (and compensates for the decline in quayside revenue over the past 10 years), the productivity of stevedores have stagnated despite substantial investments.

2.4.2 Port-Related Fees Explained

Port of Melbourne has two types of charges, prescribed charges that are subject to regulation and non-prescribed charges that are not subject to direct regulation. Port of Melbourne is the only port with formal price regulation. All container ports typically have a charging structure that involves wharfage, channel and berth hire fees. Berth hire fees apply to bulk cargo ships.

Port charges make up a small proportion of shipping line costs and costs faced by Australian consumers.

According to BITRE, our charges (including cargo-based wharfage fees and vessel-based channel fees) account for around 13% of port interface costs faced by vessels.¹² Further, port interface costs themselves only make up a small proportion of the costs faced by vessels (around 10%), with the most material costs being fuel bunkering costs (around 50-60%) and vessel charter costs (around 20%), and the remainder consisting of items such as labour and maintenance. Accordingly, our charges make up only a few per cent of total costs faced by vessels. We also note that shipping lines typically pass through port interface costs to cargo owners, and as such, it is relevant to consider the impact on cargo owners (i.e. Australian consumers).

Our December 2020 Tariff Rebalancing Application provided information on the materiality of our charges to Australian consumers. With the average value of an imported TEU in excess of \$80,000¹³, our Prescribed Services Tariffs, which amount to approximately \$150/TEU¹⁴, account for around 0.2% of the value of imported goods, *Figure 11* overleaf compares PoM import wharfage fees of other sectors of industry.

¹² Bureau of Infrastructure and Transport Research Economics 2021, *Waterline 67*, Statistical Report, Canberra, ACT.

¹³ PoM, 2021 – 2022 Tariff Rebalancing Application, December 2020, p.40

¹⁴ Noting that differences in ship sizes and utilisation will impact the conversion of vessel-based channel fees to a per TEU amount

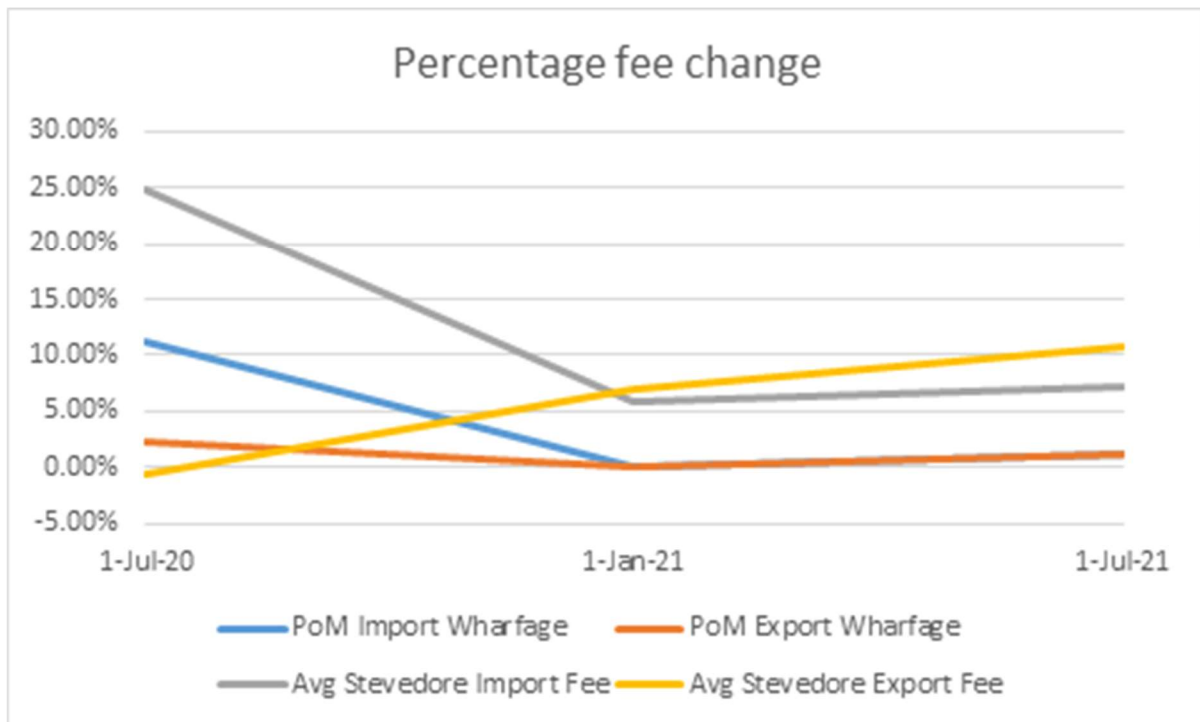


Figure 11 – Percentage of fee change

2.4.3 Competition

Enhanced competition between stevedores following the entry of Hutchison and Victorian International Container Terminals (VICT) has led to reduced profits and increased investments in equipment and infrastructure. Over the past few years, stevedores have increased their landside charges, and with significant increases in volumes in 2021, their margins have improved substantially.

Excess shipping capacity and growth in vessel sizes have led to shipping lines consolidating, forming alliances and entering into other co-operation agreements. This has increased shipping lines’ bargaining power. Larger vessels have adversely impacted on the productivity of ports as they require investment from ports and stevedores.



3. WORKFORCE

3.1 Labour Supply and Skills

3.1.1 Workplace Disruptions

Restrictive work practices and industrial action has escalated over the past decade. This has contributed to congestion issues experienced at Australian ports and has caused ongoing disruptions to the entire supply chain.

The impacts of industrial action compounded by COVID-19 disruptions have had a serious effect on already constrained supply chains, particularly as we prioritise safety.

During a time when trade demands have been higher than normal, while keeping freight moving and ensuring our warehouses are well stocked is as critical as ever. It's vital that the movement of goods through the Port is able to take place without undue delay or disruption.

We strongly encourage stevedores and the MUA to consider the impact any future industrial action will have on the Australian economy, and Australian consumers. As we exit this phase of COVID-19, the Australian economy is depending on the supply chain to enable businesses to open up, for producers to get their exports through the Port, and for people to receive the essential goods they need.

4. INFRASTRUCTURE NEEDS AND CONSTRAINTS

4.1 Rail Access

4.1.1 General

The efficient movement of freight in and out of the Port is an important factor in determining the overall capacity of the Port of Melbourne and the productivity of the Australian economy, industry and the supply chain – which in turn is fundamental to efficiently processing trade through the Port.

The continued growth in freight in Victoria (and the nation) will place pressure on and challenge existing supply chains and whilst road transport will always play a dominant role in container movements, it is inevitable that rail will need to play a larger role with increased modal share over time.

PoM has documented some of the long term initiatives through our *Rail Access Strategy – Our Plan For Rail*¹⁵, which can help industry to collectively position and align port rail priorities which includes:

- **Port Rail Transformation Project** - aims to facilitate the movement of more freight on rail. Port of Melbourne is investing more than \$125 million on rail infrastructure and other rail arrangements, including a new terminal interfacing with Swanson Dock East;
- **Webb Dock Freight Link** – this project builds upon the Swanson Precinct Port Rail Transformation Project as it involves the delivery of on-dock rail capacity as part of the development of Webb Dock to cater for container growth. The development of Webb Dock has been planned since before the Port Lease, and was published State Government Policy prior to the drafting of the Port Development Plan close to three decades ago in 1995;
- **Former Melbourne Wholesale Market Site** – integration of the former Melbourne Wholesale Market Site and the Port will strengthen the capacity of the Port rail network, including the ability to buffer port rail operations from broader rail network disruptions and delays; and
- **Western Interstate Freight Terminal** – the urgent delivery of WIFT is required to provide a Victorian terminus for Inland Rail and to act as the hub for international freight moving from Inland Rail to the Port. It is also critical that progress is maintained in regard to the Outer Metropolitan Ring / E6 including finalisation of the reservation, planning and funding to deliver

Consistent with the issues raised above and the growth of the corridors in particular in the West, there is a need to finalise the detailed alignment of the Victorian terminal for Inland Rail to provide certainty and enable the efficient movement of interstate and international freight connection with the Port.

4.1.2 Webb Dock Rail Link

Without Webb Dock being connected there will not be genuine mode shift as metro shuttles need to be able to access all terminals as cargo owners choose a shipping line but not what terminal the line calls.

The State is considering safeguarding the route through land use planning controls but has not completed this process. The PoM identified route has been agreed with the Department of Transport, Fishermans Bend Development Board and Fishermans Bend Taskforce. This route follows the path of an existing rail alignment that was decommissioned in the 1990's. The option to use an existing alignment with elevated rail means that no major land acquisition is required and Lorimer Street is not disrupted.

The importance of this link has been recognised in Infrastructure Australia's 2021 Infrastructure Priority List as a priority initiative that should be delivered over the next 5-10 years, and also warranting a special mention in IA's Chair's Foreword, one of only six such projects as "*opportunities to develop gateways to support our international competitiveness, a priority for Australia as we recover from the economic impacts of the pandemic*".¹⁶

¹⁵ Port of Melbourne – Our Plan For Rail - <https://www.portofmelbourne.com/wp-content/uploads/PoM-Our-Plan-for-Rail-2020.pdf>

¹⁶ Infrastructure Australia's 2021 Infrastructure Priority List, Chairs Foreword p3

4.2 Port Expansion to Meet Growing Demand

The vast majority of containers collected from the Port (94 per cent) are delivered to destinations within metropolitan Melbourne – generally within 50 kilometres of the Port – highlighting the advantage of our central location in greater Melbourne with:

- 37 per cent of import containers delivered to the outer west such as Laverton North and Altona
- 26 per cent of import containers delivered to outer south-eastern suburbs such as Dandenong
- 15 per cent of import containers delivered to northern suburbs such as Somerton and Tullamarine¹⁷.

We recognise that significant progress is being made to deliver new infrastructure projects to encourage a mode shift to rail – this is strongly encouraged and should be supported with similar investments in the operating environment to drive productivity and efficiencies for rail freight. We also recognise that road will continue to play a significant role in servicing the future freight needs of Australia. Port truck traffic, at the Swanson Dock and Webb Dock precincts, was measured in 2021 to be in excess of 12,000 trucks per weekday. Our forecasts predict that over the next 30 years we can expect over 10,500 trucks per day to visit Swanson Dock alone and over 9,300 trucks per day to visit Webb Dock.

4.2.1 Webb Dock East 4/5 Extension

Big ships require significant port and terminal investment. Ships typically have a lifespan of around 20 years; the sector of the ship fleet that serviced Melbourne and Australia (5000 to 8000 TEU) has been declining for quite some time and being replaced with ships of 9000+ TEU. The current infrastructure at Webb Dock East International Container Terminal operated by VICT was designed to cater for two 300m ships concurrently. However, the size of ships has increased since Webb Dock East was designed, and we now see ships up to 350 metres LOA. As a result, the terminal is often limited to a one berth operation if there is one ship over 300 metres.

These works involve the removal of a redundant concrete structure that protrudes at the northern end of Berth 4 and extension of the quay line by 71m to the north. This will restore Webb Dock East to a 2 berth terminal, as it was designed to be. Due to the increasing global fleet size there are currently times when two larger vessels cannot berth at once.

Procurement is underway on long lead items to support this project. Construction is expected to begin in Q1 2022.

4.2.2 Webb Dock North

Next tranche of container capacity and is due for delivery around 2030-2032. This will provide additional capacity to meet forecast demand and also allow for 14,000 TEU ships.

4.2.3 Relocating Tasmanian Trades to Appleton/Victoria Docks

In order to develop WDN the Tasmanian trade operators currently located at Webb Dock need to be relocated within the Port. Port of Melbourne has commenced early planning and engagement with the existing tenants at Appleton and Victoria Docks in regard to the necessary relocations and associated disruptions and further engagement is planned throughout 2022 as the project progresses.

4.2.4 Swanson Dock West

With the works at Swanson Dock East completed in November 2020, Port of Melbourne is now preparing for the remediation work program at Swanson Dock West.

The project objective is to remediate the condition of the existing Swanson Dock wharf structures to maintain minimum Port Load Chart requirements, accommodate the growth in size of ships and extend the operational service life of the berths.

¹⁷ Container Logistics Chain Study (CLCS), Port of Melbourne, July 2021, <https://www.portofmelbourne.com/wp-content/uploads/Port-of-Melbourne-2020-Container-Logistics-Chain-Study-Report-Web.pdf>

Port of Melbourne is expecting to commence works in the second half of 2022.

Port of Melbourne is continuing engagement with DP World regarding scope and project scheduling. Port of Melbourne will consult with other relevant stakeholders once the delivery scheduling options are further refined and operational impacts are further assessed and refined.

4.2.5 Gellibrand Pier

The Pier in its current form as an oil tanker berth was constructed in the early 1960s (circa 1963). Port of Melbourne is working with Mobil to enable works to the Gellibrand Pier Mooring Dolphin and Soffit/underside Remediation.

The Project scope of works includes the demolition of three and replacement of two mooring dolphins, concrete remediation to limited areas on the pier head, fire monitor tower and outer mooring dolphin soffits, including above and below water structural components of all wharf assets including Gellibrand Pier itself, all walkways, all dolphins structures, all platforms such as manifold, gangway, fire tower etc, pier head, pipe rack excluding pipes.

The works aim to maintain capacity for vessels mooring at the facility. On-site commencement of works is targeted for the first half of 2022.

4.2.6 Port Rail Transformation Project

The Port Rail Transformation Project is a key part of the Port Development Strategy that aims to facilitate the movement of more freight on rail. Port of Melbourne is investing more than \$125 million on rail infrastructure and other rail arrangements, including a new terminal interfacing with Swanson Dock East, and upgrades to existing tracks. A new road will also provide a continued east/west connection within the Swanson Dock Precinct. The project supports the Victorian Government's Port Rail Shuttle Network project, connecting three metropolitan intermodal terminals to inside the port gate.

Port of Melbourne announced the appointment of Seymour White as contractors in February 2021. Seymour White have now commenced construction and are making great progress on site. Construction is expected to be completed in 2023.

5. IMPROVE THE SECTOR'S RESILIENCE AND EFFICIENCY

5.1 Data Sharing and Modelling

5.1.1 National Freight Data Hub

The efficient movement of goods requires the removal of restrictions on port operations which includes noise curfews, urban encroachment and truck bans on heavy vehicle access routes. It also requires the development of policy and infrastructure to support better outcomes with community expectations of sustainable operations such as technology from clean freight vehicles and automation.

As acknowledged in the Productivity Commission interim report, “one of the strengths of first applying a data scan is that it is largely agnostic on those products likely to be identified as vulnerable to disruption. This reduces the probability of missing goods or a service that is vulnerable, therefore reducing the likelihood of a ‘false negative’. Equally, it may raise the likelihood of identifying a good or a service as vulnerable when it is not, akin to producing a ‘false positive’.” Data is therefore an important element in the Study to identify supply chain vulnerabilities.

The National Freight Data Hub’s purpose is to enhance collection of and access to freight data to:

1. Enable end-to-end performance evaluation for Australia's freight system
2. Improve planning for infrastructure and transport network investment decisions
3. Support day to day operations by fostering data standards and exchange, and provide timely insights about the freight system performance and bottlenecks to industry

5.1.2 Freight Transport Modelling

Fragmentation across the supply chain makes it difficult to interrogate supply chain performance and cost issues. The fragmentation also suggests that certain areas of the supply chain are unreasonably bearing the cost of inefficiencies (for example over 70% of import containers are staged at a temporary location, usually a transport depot, before final delivery. This results in additional unnecessary movements, increased holding and throughput costs). Within this context, it is also important to recognise the significant influence that the shared use arrangements on our existing road and rail transport networks can have on delivering the freight productivity objectives. Different users of the network have different demands and performance expectations, understanding these differences will be important when considering long term initiatives aimed at improving freight productivity across the total supply chain.

In order for a port to work effectively the landside freight and logistics operations, both road and rail, need to be efficient and productive. The continued growth in freight will place pressure on and challenge existing supply chains and while road transport will always play a dominant role in container movements, it is inevitable that rail will need to play a larger role with increased modal share over time. As volumes on rail increase, competing use of rail lines between freight and passengers will need to be addressed to ensure that there is sufficient policy, planning and operational solutions allocated for freight to improve freight access and movements. Furthermore, there needs to be surety that freight demand is integrated in transport and land use planning across and between jurisdiction boundaries and freight modes.

5.2 Collaboration with Other Ports

5.2.1 United Kingdom and Port of Rotterdam

The Port of Melbourne is constantly looking at innovation to improve the efficiency of the supply chain for our customers. The recent free trade agreement with the United Kingdom signed in December 2021 will provide opportunities to exporters from Australia to enter into the British market. The Minister for Trade, the Hon. Dan Tehan MP highlighted that “*exporters will benefit from immediate elimination of tariffs on over 99 per cent of*



Australian goods exports to the United Kingdom (UK), valued at around \$9.2 billion, when the agreement enters into force". However, BREXIT has also created new customs rules that may delay cargo into the UK as importers must now make full customs declarations on goods entering the country.

The Port of Melbourne (PoM) and the Port of Rotterdam (PoR) have collaborated to invite Australian exporters that do trial shipments to the United Kingdom on a block chain platform called Naviporta. Developed by BlockLab Rotterdam (a subsidiary of the Port of Rotterdam), Naviporta is an open and neutral industry platform that optimises the physical and financial supply chains by means of a more transparent, efficient, predictable and secure exchange of trusted information.

One of the applications that can be used as part of the Naviporta platform is Quay Connect which integrates and automates custom clearance processes between the UK and exporting countries. It connects individual business systems with the required governmental and regulatory bodies into one automated, accurate workflow. A video presentation of Quay Connect can be found on the LinkedIn link below. It is in Dutch, with English subtitles.¹⁸

¹⁸ <https://www.linkedin.com/feed/update/urn:li:activity:6877184189502914560>

5.3 Automation

5.3.1 General

Containerisation has led to standardisation of both equipment and work practices since it was first developed in the United States in the late 1950's. By the 1960's containerisation had begun to be adopted worldwide and in 1965 the decision was made to establish a dedicated container dock in Melbourne. The equipment needed to move containers around terminals, onto vessels and onto their final destinations (be it by road or rail) has become highly standardised over time. This mechanisation and standardisation naturally lends itself to automation as part of an ongoing process of seeking efficiencies.

Since the 1990s, there has been a push towards automation as global trade surged. In combination with growing ship sizes, this has encouraged greater automation as terminals improve their productivity, namely throughput and ship turnaround time, in the range of 30% more than standard terminals. Increased opportunities for automation will continue and our workforces need to be able to adjust and adapt accordingly.

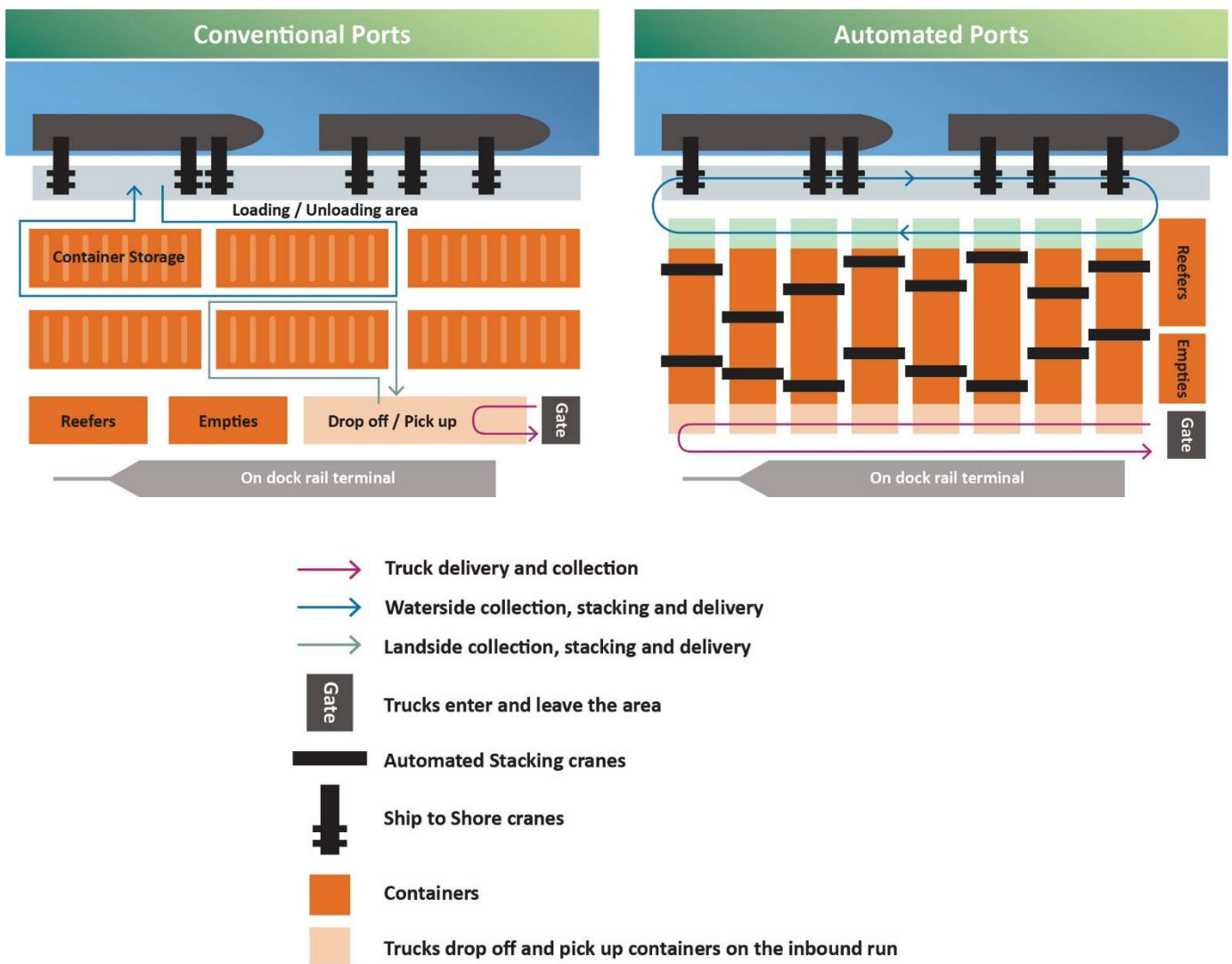


Figure 12 – Comparison of Conventional and Automated port layout

While automation doesn't make crane rates faster; it does have four main benefits, reliability, sustainability, productivity, and cost.

5.3.1.1 Increase Reliability, Efficiency, Safety and Security

Automated equipment is much more precise and predictable compared to cranes and other machines that have to be controlled manually, decreasing the number of waiting periods terminals can usually expect to face on a day-to-day basis. Automated systems are less susceptible to external natural/political disruptions. They can operate at night with no need for illumination, and in adverse weather conditions without the need to endanger operators. Automated Gate Systems, commonly rely on optical character recognition and radio frequency identification to quickly capture data about inbound and outbound containers. Photos of containers and equipment can also be automatically taken and stored to detect faults/errors/safety breaches.

5.3.1.2 Increase Environmental Sustainability

If an automated systems result in smoother operations, with little or no delays resulting from shift changes resulting in lower power consumption. Another environmental advantage is the longer life-cycle of container-handling equipment under automated conditions, where clear parameters can be set with the guarantee of them not being exceeded. As equipment has to be replaced less frequently, the manufacturing and transportation costs for new solutions can also be reduced.

5.3.1.3 Reduced Cost of Labour

The introduction of machinery reduced the labour needs per unit of cargo, similarly the automation of cranes, and straddles reduces the reliance on labour within the yard, removing the cost and risk of personnel. Human oversight is still necessary in some instances, but this can be achieved remotely from centralised control facilities.

5.3.1.3 Greater Productivity with 24/7 Operation and High Density Stacking

Without the need for safe areas for workers, nor wide road and access points, high density automated stacks can be optimised to allow a greater number of containers to be stacked and restacked for any given footprint, enabling larger container exchanges from larger ships without clogging up terminal capacity.

5.3.2 Automation of Trucks

5.3.2.1 Aging Fleet

Australia has among the oldest truck fleet amongst OECD nations, with an average age of 15 years. Aged trucks impose a financial burden on the community through their effects on human health and the environment though among other things, their representation in casualty crashes, and their contribution to pollution-related health costs. Australia's aging truck fleet will require coordinated attention as we transition our supply chains to net zero.

5.3.2.2 Automated Truck Platooning

The truck platooning and automation would reduce the operational costs and would contribute to enhanced safety as heavy vehicles operate on longer hours and travel longer distances. With several OEMs transitioning the fleet production from internal combustion engines to hydrogen fuel cells and battery electrics and considering that the average vehicle lifecycle is shorter than passenger cars, the evolution of driver-support systems and automation may happen faster than expected. Within the Australian context, given the current deployment of automated trucks in mining sites in regional Australia, and automated farming machinery, it is expected that the deployment of highly automated trucks in some sectors occurs earlier than the other applications, but will be localised rather than widespread and perhaps on limited operational design domains such as ports, warehouses, and low-traffic rural roads, or on night-time operations.

6. DEPENDENCIES BETWEEN THE MARITIME LOGISTICS SECTOR AND OTHER LOGISTICS SYSTEMS

6.1 Port of Melbourne Trade Catchment

6.1.1 Catchment Overview

The Port serves a trade catchment that extends far beyond Victorian boundaries. With the necessary Port facilities and transport connections to handle each of the major trades, Melbourne serves as a vital freight hub for south-eastern Australia (including Tasmanian, southern New South Wales and eastern South Australia). (Figure 13)



Figure 13 – Port of Melbourne Catchment

The Tasmanian Bass Strait trade accounts for approximately 10% of the Port of Melbourne's throughput. Tasmania is reliant on a daily shipping service to ensure goods can move freely to and from the Tasmanian islands. There are two Tasmanian operators who call at the Port of Melbourne, Toll Shipping and SeaRoad, each providing a 6 day a week service. Including overnight sailings, these operators allow goods to move between the mainland and Tasmania providing critical inputs to the Tasmanian economy.

With limited storage options for some products in Tasmania, export capacity is similarly important. Fresh goods, vegetables, fruits and seafood, require fast access to markets. The reduction in air services during the pandemic meant some of these goods transitioned from air-freight to sea freight. The regular calls and fast time to market enabled fresh goods to still make it to market in good condition.

Another smaller but nonetheless important service, the *Bass Island Line* provides a regular service to the King Island community. The service, calling at King Island, Bell Bay and Port of Melbourne, enables the supply of goods to the Island.

All freight rail services into the Port today are regional Victoria and southern New South Wales services. These trains are typically 1,500m long, however can vary from around 900m to 1,800m in length depending on demand and service frequency. A typical 1,500m long container train carries around 200 TEU. Port Rail Shuttles are the Victorian Government's proposed freight rail services which connect the Port with intermodal facilities in the outer west, north and the south-east of metropolitan Melbourne.

The Riverina and Murray regions are a key transport hub for the distribution of goods across south-eastern Australia with rail freight, roads and airport links within reach of each of these markets.

The Riverina and Murray regions are in an upward trend in activity. Freight volumes across NSW are projected to double by 2030 and triple by 2050 (*NSW Freights and Ports Strategy*), with the majority traversing the Riverina Murray Region by land (either road or rail). Both public and private sector recognise that maximising productivity and reducing freight handling and transport costs will positively influence the region's economic potential.

A large portion of the Southern NSW exports are transported south to the Port of Melbourne by either rail or road. Maintaining connections and access to the Port will become progressively more important as agricultural production and output increases into the future and current crossings, particularly across the Murray River, require programmed maintenance and upgrades as they age. Population growth in the regions will also place compound pressures on shared aspects of both road and rail networks.

While these macro-transport issues are critical, local and regional transport issues cannot be ignored as they form a vital part of the freight supply chain. Inevitably, almost all of the freight generated from the region's agriculture, manufacturing and processing, starts its journey on local and regional roads. Some local or regional roads are either failing under the pressure of freight movements, or limiting the ability to move freight due to their condition or alignment. This issue will become more challenging as freight movements increase, therefore it is imperative that state and federal governments work with councils on a prioritised program of works to upgrade and improve local and regional roads that connect to the State and national road freight network.

Heavy vehicle access through town and city centres is a widespread and a particularly concerning issue for many communities in the region, particularly in Griffith, Leeton and Temora. Councils and State agencies will consider the viability of local bypasses to improve freight efficiency, reduce travel times and costs, improve safety for road users and increase the amenity of towns.

Rail network efficiencies, appropriate investment in intermodal terminals and rail network capacity are important to many exporters in the region, as is the provision of on-dock rail and the reduction of double handling which is attributed to rail to road terminal/empty container parks, which although at the other end of the rail network, will significantly reduce supply chain costs for all users.

Freight supply chains in southern NSW are currently dominated by the movement of a number of high volume commodities. In regional NSW, the dominant commodities are, grain and steel, forestry and other agricultural produce, much of which makes its way south by road or rail to the Port of Melbourne. From a general trade perspective, there is renewed confidence within the regions in 2021. The agriculture sector is expected to lead again with sustained and manageable growth. However, adverse climatic conditions could hamper an expected

good harvest and the quality of that harvest. The new season is no longer an issue of increased trade volume but rather of supply chain cost efficiency issues. In this regard, where seasonal fluctuations are likely we recommend taking a long term perspective on regional export supply chain infrastructure.

6.2 Landside Supply Chains

6.2.1 Landside Pricing

The Department of Transport engaged Deloitte Economics to review the efficiency of pricing and access at the Port of Melbourne in 2019. The Review found that cost pressures across the landside supply chain, and pricing and lack of transparency is hurting our regional export cargo owners the most. While costs have risen as a result of increases in stevedore charges, the costs being levied across the supply chain are having cumulative impact on increasing costs. This has also been in line with the findings from the Australian Competition and Consumer Commission container stevedoring monitoring report in recent years.

In response, the Department has developed a voluntary pricing protocol for stevedore landside charges that established clear protocols for notification periods for price increases or the introduction of any new landside charges, explanation of price increases, and the timing of price changes. Furthermore, a state-based Voluntary Port Performance Model to increase the transparency of pricing and agree to a set of performance indicators which are consistent, measurable and meaningful is also being created with industry.

In 2020, the Transport and Infrastructure Council endorsed the National Transport Commission to develop voluntary national guidelines for applying stevedore infrastructure and access charges at Australian container ports which will include consideration of the Victorian Voluntary Port Performance Model.

6.3 Preparedness of Ports for Disruptions

6.3.1 Unforeseen Disruptions

Service reliability is at an all-time low due to port congestion. Port congestion and vessel delays are soaking up supply with more than 10% of the global fleet at anchorage due to delays. The carrier's schedule reliability is at an all-time low with top carriers barely above 45% on time performance and the worst performance at 20%.

Omitting ports has become one way for carriers to reduce delays, but it has significant consequences for those customers shipping via these ports. Multiple port omissions makes it difficult to measure the reliability of liner services. Carriers are also trying to fill gaps in the schedule by organising extra sailings. Carrier's services are sliding with a global average of 6 days delay due to late vessels arrivals.

6.3.2 Global Pandemic

The disruption and the vulnerability of supply chains was evident during the COVID-19 pandemic. The initial restrictions in China during the start of the pandemic that extended beyond the *Lunar New Year* holiday to March 2020, made it difficult for importers to bring goods into Australia. The blank-sailings from China, additional health compliance on seafarers and the general slowdown of imports due to supply side factors made it difficult for consumers to source goods in a timely manner. International vessel calls were changing regularly with port omissions to accommodate the reduced cargo out of Asia. This also affected exports with less shipping services to move cargo overseas.

As restrictions in China lifted and manufacturing activity increased, the rest of the world introduced COVID-19 restrictions, the domestic supply chain became affected with the surge of import volumes arriving (orders pre-COVID-19) and warehouses full due to the inability to distribute goods into retail and end consumers as a result of movement controls imposed by various jurisdictions.



The extended lockdowns and restrictions in Victoria compared to other States resulted in more goods stored at warehouses with PoM actively engaging with industry to ensure sufficient capacity at container terminals, transport yards and distribution centres, to cater for the increase trade and to keep the supply chain moving. PoM worked with industry bodies such as the *Freight Trade Alliance* and *Container Transport Association of Australia* to ensure that there was sufficient capacity to keep freight moving. PoM was able to respond quickly in cooperation with a number of private operators to open additional short term empty container storage for example, to prevent congestion in the supply chain. The industrial dispute at Port Botany in NSW in the latter half of 2020 also caused shipping disruptions to Australia with port omissions and delays as shipping lines tried to maintain schedule integrity of its services. This added additional costs to cargo owners, who needed to re-route cargo to meet production and consumer demand.

6.3.3 Tasmanian Trade

There were a number of disruptions to trade flows between the mainland and Tasmania in recent times. Cyber-attacks, protected industrial action and COVID-19. The impact of these events combined to create a “perfect storm” for cargo owners moving freight from Tasmania to port of Melbourne, serving their mainland customers and the rest of the world. Export of fresh produce was impacted as contracts were either unable to be met, or had to be declined, as the supply chain could not be guaranteed to get perishable goods to the buyer in a timely fashion. Besides global trade, PoM also services the majority of Tasmanian trade. During the COVID-19 pandemic, there was a need to ensure ongoing supply of grocery items, grains for animals and fertilisers/pesticides as well as inputs to manufacturing to Tasmania. The demand for warehousing space was further exacerbated by container shortages that was felt during the COVID-19 pandemic. Strong demand for containers back at origin in response to consumer demand for goods out of Asia created a shortage of empty containers in the local market. This has prompted many companies in Tasmania to create warehousing space to hold higher stock levels which adds cost to producers working on a just in time inventory system.

Shipping services between Tasmania and the mainland also provide an important connection during natural disasters. An example of this is the Australian Army using the Toll Shipping vessel to transport army vehicles during the bushfire of 2019-20. These examples show that it is important that ports remain open to ensure that cargo, both domestic and international can move in an effective manner. The container supply chain extends beyond the boundaries of the Port, connecting corridors to enable the movement of freight to warehouses, distribution centres and ultimately to the end user. Protecting this network against future supply chain vulnerabilities and disruptions needs to be considered at all levels of Government.