14 October 2022

Dr Stephen King
Commissioner
Productivity Commission

Dear Dr King

Tasmanian Ports Corporation Pty Ltd (TasPorts) Submission - Productivity Commission Draft Report
Lifting productivity at Australia's container ports: between water, wharf and warehouse

In response to the review of the Productivity Commission Draft Report, TasPorts has provided input into the submissions provided by the Tasmanian Government and Ports Australia.

Furthermore, I would like to add that the Tasmanian multi-port system is complex in nature when considering the relationship with the end-to-end logistics supply chain and in comparison to most other Australian ports. Our role is vital in enabling effective and efficient movement of freight, however is small in comparison to the influence and impact of other parties on freight movement efficiency and cost.

There is much confusion in industry and the broader community on the contributing factors that impact both port efficiency and supply chain efficiency. By way of example it is clear that the optimisation of a particular terminal and its efficiency, could well negatively impact the overall efficiency of a port, and vice versa. Discussion on terminal performance is often mis-represented or misinterpreted as port performance. Notwithstanding that there is a relationship between the port (or landlord in many instances) and the terminal (lessee and operator), this confusion is unhelpful and potentially veils the real opportunity for efficiency gains from being identified and subsequently addressed. The World Bank has published a high level summary of the contributing factors for port efficiency, which is set out at the end of this letter, and includes the following primary elements:-

• Operational performance
• Asset performance
• Financial performance

The Productivity Commission Draft Report recognises some sub-elements of these primary elements, however we believe that there is merit both for Tasmania and nationally that work is undertaken to further explain all of the contributing factors, gaining common understanding and language on all elements and their relationship to supply chain efficiency. This would also enable broader and more holistic benchmarking nationally to the benefit of all parties. This should also encapsulate and

encompass how port efficiency contributes to end-to-end supply chain efficiency. Enabling a common understanding and alignment on terminology, contributing factors and their unique relationships is a vital step in what is a continuous improvement process.

In relation to the ACCC action against TasPorts, it is important to note that the agreed contravention related to a new part of the *Competition and Consumer Act 2010* (Cth), namely the "effects test" in section 46. This test was previously un-tested and widely resisted by business and industry in its conception and implementation. As TasPorts' case shows, the new law means companies can be prosecuted even where they had no anticompetitive intent, and caused no actual anticompetitive effect. It creates great uncertainty in the practical application of the law to the complex circumstances in which TasPorts operates.

TasPorts, in addition to owning and operating port infrastructure, marine services (pilotage and towage), shipping services and an airport, performs marine safety and regulatory functions under delegation from Marine Safety Tasmania (MAST) and the EPA. In performing these vital safety functions, TasPorts was not afforded the protection of Crown immunity due to an inadequate state-based legislative and regulatory framework which pre-dates the creation of the TasPorts business. As such, TasPorts' regulatory conduct was exposed to the effects test, made further complicated by the vertical integration of marine services (towage and pilotage).

In any event, as part of an agreed settlement, all of the ACCC's allegations of anticompetitive purpose and effect were dismissed, except in relation to one issue of "likely" (as opposed to actual) effect on competition. This related to a proposed regulatory "tonnage" charge for Port Latta (a privately operated port) that was never paid. TasPorts agreed to admit this alleged contravention on the basis of a zero-dollar penalty, which in our view reflects the seriousness of the issue.

Following the conclusion of the case, TasPorts has successfully lobbied the Tasmanian Government to agree to undertake a regulatory review for delivery of port services in Tasmania. This review is now underway and is intended to deliver much improved outcomes for the ongoing protection of human life, marine assets and the environment. Competition is an important contributing factor when addressing improvement to efficiency and it is vital that in doing so all parties are cognisant of the specific market in which services are performed. Any presumptions on the agreed contravention in the ACCC proceeding should not be linked to efficiency benefits when in our view, the current arrangements are detrimental to port and supply chain efficiency. TasPorts' undertaking, provided to the ACCC as part of the settlement, allows TasPorts to collect tonnage charges at Port Latta (subject to certain conditions) and this will restore some efficiency. It is envisaged that the port services regulatory review will consider further improvements.

Should the Productivity Commission seek further information or clarification please do not hesitate to contact myself.

Yours sincerely

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Port Performance Indicators

The operational performance of a port is generally measured in terms of the speed with which a vessel is despatched, the rate at which cargo is handled and the duration that cargo stays in port prior to shipment or post discharge. However, a progressive port manager would also wish to know how extensively and intensively its assets are being utilized as well as how well the operations perform financially. Indicators to measure these performances are determined generally in relation to the tonnage of shipping calling at the port and of the volume of cargo handled since port services int eh main are rendered to ships and cargo. This note discusses the main indicators used by ports, and for ease of reference a tabulation is presented at the end of this note, which briefly describes how the indicators are determined.

OPERATIONAL PERFORMANCE INDICATORS

Primary measures of vessel performance are the ship turn-round time and the tonnage handled per ship day in port.

The ship turn-round time is the duration of the vessel's stay in port and is calculated from the time of arrival to the time of departure. Traditionally expressed in days, it is now common to express turn-round time in hours. The port authority would normally compile statistics that would provide monthly and annually average turn-round times. The average turn-round time per ship is determined by dividing the total hours by the total number of ships calling at the port.

In its basic form, ship turn-round time does not mean much, as the length of stay of a vessel is influenced by (a) the volume of cargo, (b) the facilities made available and (c) the composition of the cargo itself. Thus it becomes necessary for the port to break the basic ship turn-round time down for tankers, bulk carriers, container vessels and general cargo vessels, and even sub-dividing these into domestic trade, regional trade and ocean going vessels.

Since the duration of a vessel's stay in port is influenced by the volume of cargo that it works, a more useful measure of vessel performance is the tonnage handled per day or hour that the vessel is in port. The average tonnage handled per ship day or ship hour would be obtained by dividing the total tonnage of cargo that is loaded and is charged by the total number of hours that all vessels spend in port.

In compiling data that would enable the port to determine ship turn-round time or the tonnage handled per ship day (or ship hour), a port would normally split total time in port into time at berth and time off the berth and within each, the opportunity would be taken to record for each service activity the amount of delay (idle time) as well as the reasons for the delay (e.g., waiting for cargo, opening/closing hatches, waiting for gears, rain, waiting for berth, etc). In particular, the ratio between the waiting time for berth and the time spend at berth, known as the waiting rate, is a significant indicator of possibly congestion status.

While the tonnage handled per ship day (or hour) is a measure of the volume of cargo handled per unit of time of the vessel in port, productivity in ports is generally measured in terms of the tonnage cargo handled per unit of work station per hour. In the case of general cargo, the work station is the gang, with containers, it is the crane (or hook). Thus productivity is measured in terms of (a) tons per gang hour for general cargo and (b) TEU's/per crane (or hook) hour. With tons per gang hour, the size of the gang is a material factor, as generally and up to a point, the larger the gang size the greater its output. Hence a more useful indicator of productivity for general cargo is the tonnage handled per man hour. In establishing the size of the gang, it should be noted that some ports have separate stevedoring and wharf gangs while some have an integrated gang that works on board vessels (stevedoring) as well as at the apron (wharfingering). It should also be pointed out that very often the size and nature of the consignment has an influence on gang performance. Generally, the larger and more homogeneous the consignment the greater is the productivity.

The assessment of a port's performance from the point of view of the exporter/importer is quite basic in that there is only one indicator of interest, the dwell time of cargo in port measured in terms of the number of days that a ton of cargo remains in port. A high swell time is generally an indication that all is not well with the port. It does not, however, identify areas where improvements may be sought since, unlike ship time in port, it does not have a breakdown according to the various procedures that have to be gone through before cargo can be shipped or delivered (e.g., customs clearance waiting for instructions, waiting for ship, waiting for transport, etc.). The important of dwell time also obviously varies with the nature of cargo.

ASSET PERFORMANCE

Performance in asset utilization is measured in relation to the tonnage of ships calling at a port and/or the tonnage of cargo handled. Since the main assets of a port are its berths, it is important to measure the performance of the berths in terms of the throughput handled per berth. Berth throughput, therefore is the total tonnage of cargo handled across a berth. Most ports obtain an average berth throughput by dividing the total tonnage handled at berth with the number of berths available at the port. A preferred method is to determine individually for each berth the total tonnage handled at the berth and then arrive at an average for all the berths. Throughput at berth is also measured in terms of tonnage handled per linear meter (or foot) of wharf.

The degree of utilization of a berth is measured by the berth utilization rate. This is the percentage of actual working time at the berth in relation to the time the berth is occupied. This indicator seems more useful than the berth occupancy rate which measures the time that the berth is occupied relative to the total time that is available.

Like ship turn-round time, berth throughput is influenced largely by the class of commodity handled at the berth so that it becomes necessary to establish indicators that measure berth throughputs in the context of the class of cargo handled (general cargo, container, bulk, etc.).

FINANCIAL PERFORMANCE

In addition to the financial performance that can be determined from the usual financial statements (income statement, profit and loss account, balance sheet), a port may wish to relate its income generation operating surpluses and expenditures to total CRT/NRT of shipping and the total tonnage of cargo handled at the port. Examples are income/expenditure per GRT (or NRT) of shipping and operating surplus per ton of cargo handled. The merit of relating income, expenditure and operating

surplus to the tonnage of shipping or the tonnage of cargo handled is that a common denominator now exists for purpose of comparison.

Last but not least, a useful measure of financial performance is the rate of return on turnover which is determined by dividing operating surplus by operating income.

PORT INDICATORS

INDICATOR	BASIS OF COMPUTATION
Average ship turn-round time	*Total hours vessel stays in port divided by Total no. of vessels*
Average tonnage per vessel day (hour)	*Total tonnage of cargo handled divided by Total no. of vessel days (hours)*
Average vessel time at berth	*Total hours alongside berths divided by Total no. of vessels berthed*
Average vessel time outside	*Total hours in port – total hours berth alongside divided by Total no. of vessel calls*
Average waiting (idle) time *For berth* *Due to rain* *Other causes*	 *Total hours of vessels waiting for berth divided by Total no. of vessels berthed* *Total hours of work stoppage due to rain divided by Total no. of vessels worked* *Total hours of stoppage attributed to the cause divided by Total no. of vessels worked*
Average Waiting Rate (5a/3)	*Total hours of vessels waiting for berth divided by Total hours alongside berths*
Tons per gang hour	*Total tonnage handled divided by Total no. of gangs x total no. of hours worked*
TEUs per crane (hook) hour	*Total no. of TEUs handled divided by Total no. of cranes used x total no. of hours cranes worked*

Dwell time by	*Total no. of cargo tons x days in port divided by Total tonnage of cargo handled*
Berth throughput	*Total tonnage of cargo handled at berths divided by Total no. of berths*
Throughput per linear meter	*Total tonnage of cargo handled at berths divided by Total length of berths of wharf*
Berth occupancy rate (5)	*Total time of ships at berths x 100 divided by Total no. of berths x 360 days*
Berth utilization rate (5)	*Total time that ships actually work x 100 divided by Total time of ships alongside*
Income (expenditure) per GRT (or NRT) of shipping	*Total income (expenditure divided by Total GRT (or NRT) of shipping*
Operating surplus per ton of cargo handled	*Operating surplus divided by Total tonnage of cargo handled*
Rate of return on turnover	*Operating surplus divided by Operating income*