Size matters



NEW STRENGTHS: Fremantle has taken the 'future-proofing' route to meet the challenges of catering for larger ships



Should ports invest in infrastructure to handle bigger ships or stay on the sidelines?

Dave MacIntyre considers the question

TO INVEST IN the infrastructure to handle bigger ships, or to stay on the sidelines, as the "cascade" effect sheds larger vessels down through the trade lanes?

That dilemma is facing port executives as they consider the conundrum of whether major new investment will pay off or they would be safer by avoiding the capex equation and accepting a role as a feeder port.

Deciding which way to go is not easy. One port which has grasped the nettle of capex investment – but is a firm believer in making a business case stand up – is Melbourne.

Head of corporate relations Peter Harry says major infrastructure investment must have business rationale, because the port corporation is financially self-sustaining. "The successfully completed channel deepening project is a good case in point. [We] recognised the need for additional draught depth to accommodate deep-draught vessels, particularly when the port was constrained to an all-tides draught of 11.6 m," he says.

"By the March quarter 2009, up to 60% of the vessels calling at the Port of Melbourne were potentially draught-restricted. Already the project has seen a number of vessels call with an available draught which exceeded the previous constraint. Since the project's completion, at least one vessel is making use of the deeper draught every second day – which will grow over the 30-year project life."

Another port that has taken on the risk of "future-proofing" is Fremantle, Western Australia's biggest and busiest general cargo port. The average size of container ships calling at Fremantle has increased by more than 85% in the past 15 years. Fremantle

Larry Lam Portek International



Inertia, bureaucracy, complacency and lack of motivation allow status quo to persist 9

harbour and its approach channels are currently being deepened so that the larger container ships can call fully loaded. The Aus\$250m (\$245.6m) project will take the container berths at North Quay to a depth of 14.7 m.

An additional 180 m of quay was created by reconstructing an old berth to ready it for bigger new



NEW DEPTHS: the cutter suction dredger Phoenix makes room for the big boys in Fremantle Inner Harbour

ships. Other container berths are also being strengthened. In addition, an extra 27 ha of port land has been created from the dredging spoil.

The business rationale is to avoid the port being bypassed and ensure that services by larger ships are retained.

Such quandaries are faced by ports internationally. Larry Lam, chairman and managing director of Portek International, the Singapore port operator and equipment supplier, is in no doubt that, in many cases, ports at the bottom of the ladder could benefit from strategic upgrading.

"Many regional and feeder ports are still stuck in the groove of relying on geared ships and not being able to service the non-geared ships," he says. "Many of them take comfort from the fact that the other feeder ports in the same port rotation are in the same situation, and therefore gearless ships will not be calling anyway, even if one individual port were to equip itself with shore cranes.

"Such reasoning is fast losing ground as smaller and geared ships are losing market share to the larger ones. Ports which are able to modernise and gear up will give a better turnaround time to ships calling, be it geared or gearless, and hence be able to attract more cargo and enjoy the first mover advantage."

Mr Lam says investment such as deepening, quay strengthening and terminal management software can often be recovered through a higher volume of cargo, together with justifiable increases in tariffs that are matched by productivity improvement.

"Hence, not having sufficient return on investment is seldom the reason for not undertaking

the needed modernisation. Rather, it is inertia, bureaucracy, complacency and lack of motivation which weigh down a port and allow status quo to persist," he says.

"Those who are slow to react to the changing trends towards use of large ships will find themselves marginalised. Some may lose their international calls and may only serve as a domestic port, for the domestic trades."



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No clear path as ports weigh the options and implications

IN NEW ZEALAND, where a shippers' body is pushing for the creation of a hub port or two to handle 7,000 teu ships, port executives are carefully weighing the options and the cost/profit implications of playing follow-my-leader.

Chris Bain, chief operating officer of the Port of Napier, says there is no clear path which suggests 7,000 teu vessels would be a natural answer to the country's need for a more efficient supply chain.

To make them work, more lines would have to group together in expanded consortia. Shippers may be faced with reduced port options and fewer service alternatives.

Proposed hub ports would also face large logistical challenges. Feedering would have to accommodate New

Zealand's seasonal trades, the import/export regional imbalance, container equipment mismatches, high reefer requirements and cool chain integrity concerns.

His conclusion is that competition between the lines and for customers will probably result in an evolution of the current mix of shipping services, perhaps one large-vessel option augmented by coastal feeders as well as a range of midsized services using vessels in the 4,000-5,000 teu range that will continue to call at four or five ports.

Beneath that level, lines with smaller vessels (for example, the US trades, which tend to operate with vessels of 2,500-3,500 teu) will continue to support regional port calls. The point Mr Bain is driving home is that while a hub port service could be important, it has not dominated the landscape because competitors will look to fill whatever void appears in the regional ports.

Operationally, he concedes that while there is a cascade effect happening, with larger vessels being displaced out of other trades and finding their way into the New Zealand scene, so far this has reached only the 4,500 teu level which is accommodated at a regional port like Napier.

Because draught is only usually an issue at first port call in and last port call out, intermediate ports in the voyage pattern are less exposed to draught problems, and the physical dimensions of such vessels possibly could be accommodated without the port needing to delve deep for capex.

All of this leads Mr Bain to question whether New Zealand could still be well served by its logistics network while avoiding the need to invest hundreds of millions of dollars.

He draws an analogy with the airline industry, where the impact of massive Airbus A380s serving just a few routes has still to be quantified. Boeing, meanwhile, continues to build large-capacity aircraft that can fly to other destinations unable to handle the Airbus A380s. No one standard has prevailed, and customers still have a mix of options.

Could a similar situation arise with ports?