

Port sector developments

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Maritime Advisors

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Volume growth to Q3

Global volume is flat. Low growth outlook likely



% change

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Global capacity and utilisation

Slight decline in forecast of short run capacity additions; accelerating from 2025. Utilisation forecast to be strong in China but moderate to soft in other regions, notably Europe.



Utilisation



■2022 capacity ■2027 capacity ◆ Utilisation 2022 (right axis) ● Utilisation 2027 (right axis)

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Revenue and earnings



Earnings



Note: Index measures QoQ change in revenue per teu, based on the quarterly financial results reported by AP Moller-Maersk, BNCT, HHLA, ICTSI, Santos Brasil and Westports. The Index is weighted on throughput, with Drewry estimates of teu:box ratio used to convert AP Moller-Maersk and Santos Brasil reported moves into teu.

Note: Index measures QoQ change in earnings per teu, based on the quarterly financial results reported by AP Moller-Maersk (calculated from reported average revenue / average cost per move), BNCT (EBITDA), HHLA (EBIT), ICTSI (EBITDA) Santos Brasil (EBITDA) and Westports (EBITDA). The Index is weighted on throughput, with Drewry estimates of teu:box ratio used to convert AP Moller-Maersk and Santos Brasil reported moves into teu.

Earning per teu index

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Role of the port authority

Port authority mergers

Inland ports

Trade facilitation: SEZs and portcentric logistics

Connectivity: intermodal and shipping services

Digitalisation

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Evolving scope of ports and terminals

Ports are increasingly involved in the wider supply chain



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Cooperation among ports

Cooperation or mergers among ports creates synergies and manages competition. This can be helpful in a low growth environment.













3. Ports and the energy transition Slide Divider Sub Header





Challenges and opportunities for ports

Ports face challenges from emissions reduction but there are also new opportunities in the energy transition



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Fit for 55

The European Green Deal and Climate Law aim at making Europe the first climate-neutral continent by 2050, transforming the EU economy and society to meet climate.

In 2021 the EC published a package of proposals ("**Fit for 55"proposals**) with the aim to deliver on the European Climate Law target to reduce GHG emissions in the EU by at least 55% (over 1990s levels) by 2030, and enable climate neutrality by 2050. These proposals will enable the necessary acceleration of GHG emission reductions in the next decade.



Ports will play a central role in the delivery of the proposed **FuelEU initiative** - providing new infrastructure for the processing, storage and distribution of low carbon fuels which will support a material reduction in GHG emissions from shipping.

Ports are sources of emissions and providers of solutions



Enabling actions



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Tianjin Green Port

Tianjin Port has developed and put into operation the world's first zero carbon terminal

"integrated wind and solar energy storage system" achieves carbon neutrality in docks



Annual power generation of about 56.6 million kWh

Annual electricity consumption of about 50 million kWh



photovoltaic power generation





Tianjin Green Port

New terminal delivers high operational efficiency as well as zero emissions



BEST Barcelona

The Hutchison Ports BEST terminal in the Port of Barcelona has achieved an emission reduction of 57% in 2022 against 2021, the terminal operator said.



Image credit: Hutchison Ports BEST

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Renewable energy: Port of Antwerp-Bruges case

Port of Antwerp-Bruges is a large generator of wind power

Wind



Capacity

Zeebrugge

- 50 wind turbines
- 130 MW capacity
- 90,000 families

Antwerp

- 80 wind turbines
- 200 MW capacity
- 140,000 families

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Port of Rotterdam – key elements

Rotterdam's green port vision includes hydrogen infrastructure, grid connections to offshore wind, shore power and CO2 storage infrastructure

Hydrogen import and transport infrastructure	The Delta Corridor pipeline infrastructure to Chemelot and Germany	Electricity grid reinforcement and new cable landings from offshore wind farms	Infrastructure for transport and sub-sea storage of CO2
Heat pipelines from industry	Infrastructure for the H-vision project, for low-carbon hydrogen production	Shore-based power systems for seagoing vessels	Hydrogen transport infrastructure between the Netherlands, Belgium and Germany

Antwerp's green energy hub vision

Antwerp has a similar vision, particularly focused on hydrogen and hydrogen carriers





Offshore wind: Green Port Hull

Green Port Hull provides key infrastructure for offshore wind in the North Sea





Alternative fuel uptake: Global fleet

Global fleet alternative fuel uptake



- No. of vessels without alternative fuels
- No. of vessels with alternative fuels

Global orderbook alternative fuel uptake



Orderbook of vessels with alternative fuels

Orderbook of vessels without alternative fuels

Alternative fuel uptake – total global fleet



Alternative fuel uptake - total global orderbook



LPG Methanol Nuclear





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