Making Size Count
Economics of the Mega-Vessel

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“The Impact of Mega-Ships” Report
How did we get here?

Development of container ship size

Source: OECD/ITF based on data from Clarkson Research Services
What is the issue?

- Total costs for transport chain
- Handling costs per TEU
- Vessel costs per TEU
- Ship size
Vessel cost savings are decreasing

Assumptions:
Round trip: 21,000 nm, three weeks tied up for port operations
Average cost of main engine fuel: US$ 600/ton
Utilization of nominal capacity: 85%
Can these ships be filled?

Growth world container fleet (TEU capacity)

Growth containerised seaborne trade (tonnes)
Supply chain costs and risks increasing

Turn-around times in ports

North Europe
- Hamburg
- Rotterdam
- Gothenburg
- Antwerp
- Southampton
- Felixstowe
- Bremerhaven
- Le Havre
- Zeebrugge
- Koper
- Anvers

Indian Ocean and Red Sea
- King Abdullah Port
- Jebel Ali
- Khor Fakkan
- Colombo
- Salalah

North America
- Long Beach
- Los Angeles
- New York
- Oakland
- Portland
- San Francisco

Mediterranean
- Port Said
- Gdynia
- La Spezia
- Genoa
- Marseille
- Messina
- Amoula
- Piraeus
- Valencia
- Tangier
- Barcelona

Asia Pacific
- Qingdao
- Singapore
- Tanjung Pelepas
- Hong Kong
- Port Klang
- Shanghai
- Busan
- Ningbo
- Xiamen
- Shenzhen
- Keihin
- Guangyang

Legend:
- Number of container ship calls per month (2014)
- Turn-around times for ships in selected ports

Notes:
- Mega-ships are here considered to be container ships with deadweight tonnage of 150,000, which roughly translates to ships with TEU capacity of 13,300 and higher.

Source: OECD/ITF.
Peaks

GT daily volume of container ships moored over 50 000 GT
GT daily volume of container ships moored <= 50 000 GT

AVG DAYS
Where are we heading?

Average container ship size on main trade lanes: three scenarios for 2020

Average TEU capacity of ships

- Situation in 2015

Projected increase in average ship size if there will be...

- Capacity growth in line with market demand in 2020
- 50 container ships with 24,000 TEU capacity in 2020
- 100 container ships with 24,000 TEU capacity in 2020

NB. TEU (Twenty-foot Equivalent Unit). This refers to a 20 foot-long container. TEU is the standard unit used for indicating the capacity of container ships. The thickness of the lines is proportional to the average TEU capacity.

Source: OECD/ITF.
Align incentives to public interest

Container ship size and port dues in Gdansk
Collaboration: carriers-terminal operators
Collaboration: alliances of terminal operators?

Each group of squares represents a terminal operator, and each square represents a terminal. The grey squares represent the total number of terminals jointly operated (joint ventures). The squares inside the lines represent the number of terminals jointly operated between two operators.

Source: OECD/ITF based on Drewry 2014
Collaboration: need for port consolidation?

North Europe

Mediterranean

Cumulative market share (%)

Rank

Carriers
Ports

Cumulative market share (%)

Rank

Carriers
Ports
Thank you

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