Liner shipping: challenges and implications

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Liner fundamentals
Liner economics and the cycle

Liner shipping is a cyclical industry; cycles driven by cash balances and utilisation
Liner economics and the cycle

Liner economics are fundamentally challenging and promote earnings erosion

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<th>Factor</th>
<th>Effect</th>
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<tr>
<td>Economies of scale</td>
<td>Structural overcapacity</td>
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<td>Perishability</td>
<td>Push for short-run contribution – rate erosion</td>
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<td>High operational gearing</td>
<td>Focus on price competition</td>
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<td>Commoditised service offering</td>
<td>Limited differentiation of product; price competition</td>
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<td>Fragmented industry</td>
<td>No coordination of capacity development, intense competition</td>
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<td>Inelastic demand curve</td>
<td>Falling rates have a limited effect on demand</td>
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</table>
Liner economics and the cycle

Liner shipping is fragmented

![Diagram showing HHI Index with various industries and their concentration levels.]

**Notes**
1. Source: UBS Global Shipbuilding reports May-09
2. Source: Natixis, Carnival report Sep-09
3. Source: Drewry, Containerisation International
4. Source: RBC, Fedex report Aug-09
Historical growth

Growth has been rapid but volatile: very hard to match capacity growth to demand growth

![Chart showing historical growth of container traffic and annual growth percentage from 2000 to 2013.](chart.png)
Rates and profitability

Result: profitability has been poor and very volatile

Historical development of E-W Freight Rates (US$/teu)

Sample carriers’ EBIT (US$bn and %)

Note: EBIT margins based on average of sample carriers after currency conversion to US dollars when necessary. Sample consists of Maersk Line, APL, CMA CGM, CSAV, Hanjin Shipping (container), Hapag-Lloyd, HMM (container), NYK (liner, calendar year basis), Wan Hai, Yang Ming and Zim.
Nothing changes…

Mogul Steamship Co Ltd v McGregor, Gow & Co 1892

“Shipowners had better sell out as there is no use continuing in business if the law decides we must cut each others’ throats and ruin ourselves”.

John Swire, agent for Alfred Holt, founder of the Far Eastern Freight Conference
Challenges
Global container trade growth has slowed down

- US recession
- China outsourcing
- Asian financial crisis
- New global norm
- Global financial crisis

Source: Drewry

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Price competition forces focus on costs

- Commoditised services
- Market fragmentation
- Perishability

Price competition

Cost leadership
What are the main costs?

Maersk Line - % of costs

Lines are focused on all aspects of cost improvement and network efficiency – vessel and bunker costs are around 50% of a line’s total cost spend.

“The network cost initiative and total unit cost initiative delivered significant results and total cost reductions are ahead of plan, especially due to a more cost-effective and better utilised vessel network”.

(APMM 2013 Annual Report – Maersk Line)
Economies of scale are very significant

Asia – Europe round-voyage slot cost at 85% utilisation (US$/TEU)
Implications
Carriers play ‘follow the leader’ in ordering bigger ships

Regina Maersk 7,400 teu
Mid 1990s
Other carriers followed...

Emma Maersk 15,500 teu
Mid 2000s
Other carriers followed...

Maersk Triple E 18,000 teu
2013
Other carriers following...

22,000+ teu vessels?
2018?
Carriers will follow…
Survival of the biggest

Notes: Above 10K teu fleet and global fleet share, as of July 2014
EBIT margin for Japanese carriers (K Line, MOL, and NYK) based upon calendar year January-July, not its fiscal year that starts April

Source: Drewry Maritime Research
Wide variations in unit costs

* Big ships identified as above 10K teu; big ships ratio and global fleet share as of July 2014

Source: Drewry Maritime Research
Terminal performance is critical to achieving benefits of largest ships

Lines expect:

- Largest vessels for the trade/route to be handled without physical constraints
- Unit handling costs are maintained – requires a competitive environment
- As vessel size increases, port time is maintained, in spite of increased container exchange
- Speed of vessel turnaround is important, but reliability is just as important
- Reliability includes
  - Departure on schedule
  - Connectivity with feeders/relay services at hubs
  - All containers loaded (including empties)
  - No constraints/congestion on landside service
The challenge for Ports and Terminals

How to handle the higher container exchanges per call on larger ships?

<table>
<thead>
<tr>
<th>Ship size (teu)</th>
<th>Length (m)</th>
<th>Width (m)</th>
<th>Max draft (m)</th>
<th>Boxes wide</th>
</tr>
</thead>
<tbody>
<tr>
<td>12,000</td>
<td>365-380</td>
<td>48-50</td>
<td>15.5</td>
<td>19-20</td>
</tr>
<tr>
<td>15,000</td>
<td>400</td>
<td>56</td>
<td>16</td>
<td>22</td>
</tr>
<tr>
<td>18,000</td>
<td>400</td>
<td>59</td>
<td>16</td>
<td>23</td>
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Source: Drewry
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