Trends in ports and shipping market – prospects for the coming years

Drewry Maritime Advisors
Drewry is an international maritime research and advisory firm experienced in working across multiple market segments, from containers and dry bulk to chemicals and ports. Serving our clients from our offices in London, Delhi, Singapore and Shanghai our teams have a wealth of knowledge both at a domestic and global level.

**Independent**

Our voice is our own and not defined by others, having been built over time to represent an authoritative source within the industry. Our independence means that we can provide advice that our clients can rely upon.

**Maritime Specialists**

We focus on the maritime industry and have built our expertise through continuously monitoring market movements. Our understanding comes from working within the industry, giving our clients a perspective from the inside looking outwards, offering a depth of specialisation that positions us as market leaders.

**Proprietary Intelligence & Analysis**

For over 40 years Drewry have been analysing and studying the maritime markets, building unique resources, models and data. It is from these foundations that we are able to provide research and advisory services that offer powerful insights and forecasts that can be used in your decision making.
Global seaborne trade – growth

Source: Drewry Maritime Research

The past 34 years (1980 – 2014)

Global seaborne trade growth 3.1%

World GDP growth 2.0%

World population growth 1.5%

Urbanization factor 2.4%

Shipping capacity expansion 2.7%

Million Tonnes

Million Tonnes

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Global seaborne trade – Key market segments

Source: Drewry Maritime Research

CAGR 1980-2014

- Dry Bulk: 3.7%
- Liquid Bulk: 1.9%
- Containers: 8.3%
- Non Containers: 2.9%

CAGR 2009-2014

- Dry Bulk: 7.1%
- Liquid Bulk: 2.4%
- Containers: 7.6%
- Non Containers: 6.0%
Container Market
Global container port traffic 2000-2014
Market is growing but at a much slower pace

Million teu

Source: Drewry Maritime Research
Regional throughput growth (teu)
Wide variation in expected demand growth by region, with increased volatility

2014-2015

Source: Drewry Maritime Research

2011

Source: Drewry Maritime Research
Global containership size development
Rapid move towards bigger ships; 2015 - scheduled delivery of 1.9 million teu and 60 ULCVs

- Ships of 10,000 teu or above comprise 18% of the global fleet by capacity (14% a year ago)
- Ships of 8,000 teu or above comprise 37% of the global fleet by capacity (33% a year ago)
- Ships of less than 5,000 comprise 46% of the global fleet by capacity (43% a year ago)
**Increase in average container ship size, 1Q2013 - 1Q2015**

Increase in ship size on all trade lanes…significant upsizing on certain trades

<table>
<thead>
<tr>
<th>Trade Lane</th>
<th>Increase</th>
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<tbody>
<tr>
<td>Europe-S Africa</td>
<td>80%</td>
</tr>
<tr>
<td>Asia-ECSA</td>
<td>37%</td>
</tr>
<tr>
<td>Asia-W Africa</td>
<td>34%</td>
</tr>
<tr>
<td>Europe- W Africa</td>
<td>32%</td>
</tr>
<tr>
<td>Europe-ECSA</td>
<td>21%</td>
</tr>
<tr>
<td>Asia-N Europe</td>
<td>19%</td>
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<tr>
<td>Asia-USEC (Suez)</td>
<td>15%</td>
</tr>
<tr>
<td>Asia-USWC</td>
<td>15%</td>
</tr>
<tr>
<td>N Europe-Gulf/Mex</td>
<td>14%</td>
</tr>
<tr>
<td>Asia-S Africa</td>
<td>10%</td>
</tr>
<tr>
<td>SE Asia-Aus</td>
<td>9%</td>
</tr>
<tr>
<td>N Europe- N Atlantic</td>
<td>9%</td>
</tr>
<tr>
<td>Asia-WCSA</td>
<td>8%</td>
</tr>
<tr>
<td>Asia-Med</td>
<td>8%</td>
</tr>
<tr>
<td>N Asia-Aus</td>
<td>6%</td>
</tr>
</tbody>
</table>

Source: Drewry Maritime Research
Average ship size
More than 6,000 teu on most trade lanes

Source: Drewry Maritime Research
Changing nature of cargo flows
Terminal performance is critical to achieving benefits of largest ships; who pays?

Lines Expect:

• Reliability
  – Departure on schedule
  – Connectivity with feeders/relay services at hubs
  – All containers loaded (including empties)
  – No constraints/congestion on landside service

• Productivity
  – Speed of vessel turnaround is important. As vessel size increases, port time is maintained, in spite of increased container exchange

• Efficiency
  – Largest vessels for the trade/route to be handled without physical constraints
  – Unit handling costs are maintained – requires a competitive environment
Global TEU volumes are forecast to grow steadily to 2019

Throughput (Left axis)  Capacity (Left axis)  Utilisation (Right axis)
Dry Bulk Market
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Demand: uncertain market, modest outlook

**Major Bulk**
- CAGR 7.9%

**Minor Bulk**
- CAGR 3.3%
- CAGR 3.5%
Supply: Demolition, delayed deliveries, cancellations

Handysize (up to 39,999 dwt)

Panamax & Post-Panamax (up to 119,999 dwt)

Handymax (up to 64,999 dwt)

Capesize & VLOC (120,000 dwt+)

Million dwt

Deliveries
Demolitions

Million dwt

Deliveries
Demolitions

Million dwt

Deliveries
Demolitions

Million dwt

Deliveries
Demolitions

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Whilst newbuild prices have seen a steadier decline

Prices peak in 2007-2008 due to high capacity utilisation.

Prices decline due to excess supply and global recession

CAGR (2009-2014)
- Capesize: -6%
- Panamax: -5%
- Handymax: -4%
- Handysize: -5%
Improving utilisation

Fleet growth CAGR
- 2009-2014: +10%
- 2014-2020: +4%

Utilisation of capacity (right axis)

Dry Bulk fleet (left axis)
Period rates have seen a dramatic decline since 2008

CAGR (2009-2014)
- Capesize: -10%
- Panamax: -12%
- Handymax: -6%
- Handysize: -2%

CAGR (2014-2020)
- Capesize: +4%
- Panamax: +10%
- Handymax: +10%
- Handysize: +12%

1-year period rates, USD per day

Forecast
Tanker Market
• IEA now estimates global oil demand to have grown by 1.7 mb/d in 1H 2015 vs 1H 2014

• IEA forecast Global oil demand to average 94.2 mb/d in 2015, and to 95.6 mb/d in 2016.

• Estimates were upgraded as economic growth solidifies and US consumers, in particular, respond to sharply lower oil price
Crude oil seaborne trade – Asia the only bright spot

<table>
<thead>
<tr>
<th>Region</th>
<th>CAGR (2009-2014)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>- 4.0%</td>
</tr>
<tr>
<td>Europe</td>
<td>- 1.0%</td>
</tr>
<tr>
<td>Asia</td>
<td>+ 3.3%</td>
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</tbody>
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![Graph showing imports (million tonnes) from 2000 to 2014 for Europe, USA, and Asia Pacific.](chart)

Imports (million tonnes)
US shale oil output - key variable for seaborne oil trade

US Crude Oil Production

US Crude Oil Production (high price)

US Crude Oil Production (low price)
Crude tanker tonne-mile demand

CAGR (2014-2020) 2.7%

CAGR (2014-2020) 1.7%

Demand (billion tonne-miles)


Oil trade (billion tonne-miles)

Oil trade (billion tonne-miles) - High Price

Oil trade (billion tonne-miles) - Low Price
Crude tanker fleet growth

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Delivery and demolition (M. DWT)

Fleet size (Million DWT)


Delivery  Demolition  Fleet size - right
Crude tanker supply-demand balance

<table>
<thead>
<tr>
<th>Year</th>
<th>Supply</th>
<th>Demand</th>
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<tbody>
<tr>
<td>2011</td>
<td></td>
<td></td>
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<tr>
<td>2012</td>
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<tr>
<td>2013</td>
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<tr>
<td>2020</td>
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</table>

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www.drewry.co.uk
Crude tanker: Summary and earnings outlook

Thousand USD per day


Vlcc (280K dwt)  Suezmax (150K dwt)  Aframax (95K dwt)
Thank You