The End of the Oil Age …Sort Of

Peter Zeihan
DES
July 23, 2019
Risk to Important Crude Flows

All global crude grades with a gross production in excess of 100,000 barrels per day. Sources: Energy Intelligence, Baker Institute, EIA, Argus Media, and Tableau

© 2016 Zeihan on Geopolitics
The Twilight War
The (Next) Gulf War
The Asian Battlespace

Map of Asia with various countries and regions highlighted, including oil consumption, net exports, natural gas pipeline, and U.S. Naval facilities.

Legend:
- First island chain
- Oil consumption
- Net exports (bblpd)
- Net imports (bblpd)
- Natural gas pipeline
- U.S. Naval facilities
- Ports friendly to U.S. ships
- Likely new ports
- Aircraft
- Missile

Key Locations:
- Saudi Arabia
- Pakistan
- India
- Bangladesh
- Sri Lanka
- Malaysia
- Singapore
- Indonesia
- Australia
- New Zealand

Data Representation:
- U.S. Navy ships
- Airports
- Commercial docks

2011 Data represented, except where otherwise designated

© 2016 Zeihan on Geopolitics
The Wars of the Disorder
## War Risk Insurance Cost Estimates in a High Risk Environment

<table>
<thead>
<tr>
<th>Ship Type</th>
<th>Maximum Carrying Capacity (Units)</th>
<th>Appx Secondhand Value*</th>
<th>Typical Cargo Value**</th>
<th>2.5% Normal Annual Hull Insurance Cost</th>
<th>5% Hull War Risk Premium for Seven Days</th>
<th>0.375% Additional Cargo Risk Premium for Duration at 80% Insured</th>
<th>Additional insurance cost per unit per seven days in high risk zone (USD)</th>
<th>Approximate Ship Dimensions - Length, Beam, Depth in Meters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maersk Triple E</td>
<td>18,000 TEU</td>
<td>$180</td>
<td>$630</td>
<td>$4.50</td>
<td>$9.00</td>
<td>$1.89</td>
<td>$605 / container</td>
<td>400x59x15</td>
</tr>
<tr>
<td>Panamax Container (post-expansion)</td>
<td>12,500 TEU</td>
<td>$130</td>
<td>$438</td>
<td>$3.25</td>
<td>$6.50</td>
<td>$1.31</td>
<td>$625 / container</td>
<td>366x49x15</td>
</tr>
<tr>
<td>Panamax Container (pre-expansion)</td>
<td>5,000 TEU</td>
<td>$7.0</td>
<td>$175</td>
<td>$0.18</td>
<td>$0.35</td>
<td>$0.53</td>
<td>$175 / container</td>
<td>290x32x13</td>
</tr>
<tr>
<td>Very Large Crude Carrier</td>
<td>2,000,000 barrels</td>
<td>$62</td>
<td>$200</td>
<td>$1.55</td>
<td>$3.10</td>
<td>$0.60</td>
<td>$1.85 / barrel</td>
<td>330x58x31</td>
</tr>
<tr>
<td>Aframax Tanker</td>
<td>800,000 barrels</td>
<td>$18</td>
<td>$80</td>
<td>$0.45</td>
<td>$0.90</td>
<td>$0.24</td>
<td>$1.43 / barrel</td>
<td>245x34x20</td>
</tr>
<tr>
<td>Capesize Bulk Ship</td>
<td>196,000 metric tons</td>
<td>$33</td>
<td>$16</td>
<td>$0.83</td>
<td>$1.65</td>
<td>$0.05</td>
<td>$8.66 / metric ton</td>
<td>280x45x24</td>
</tr>
<tr>
<td>Panamax Bulk Ship (pre-expansion)</td>
<td>83,000 metric tons</td>
<td>$20</td>
<td>$7</td>
<td>$0.50</td>
<td>$1.00</td>
<td>$0.02</td>
<td>$12.29 / metric ton</td>
<td>225x32x14</td>
</tr>
<tr>
<td>Handymax Bulk Ship (feeder)</td>
<td>59,000 metric tons</td>
<td>$12</td>
<td>$5</td>
<td>$0.30</td>
<td>$0.60</td>
<td>$0.01</td>
<td>$10.41 / metric ton</td>
<td>190x32x11</td>
</tr>
</tbody>
</table>

* Values are based 5 year old ships except for Handymax and Aframax where data was only available for 10 year old ships and the Triple E class which are newbuilds. Prices are approximate based on reports from March 2017.
** With oil priced $100/barrel, coal $80/metric ton, clothing $35,000/TEU

Sources: Athenian, Clarkson, Maersk, ZoG Research

© 2017 Zeihan on Geopolitics