DRY BULK MARKET OUTLOOK

MARCH 2017
MARKET DEVELOPMENTS - SUMMARY

- A rather healthy start to the year, with capes leading the charge.
- Iron ore imports to China increased by 13.4% to 83.5 Mn T in February, mainly due to restocking efforts. Stockpiles grew by a 8.2% in February, the largest month-on-month increase in 3 years.
- TC rates increased from an average of USD 11.4 k per day in February to a current USD 14 k per day.
- Restocking is a clear short term development, but other medium to long term developments could contribute to the bull market.
- New iron ore from Vale’s recently opened S11D mine should contribute to softening iron ore prices, thus increasing the appeal of imports for Chinese buyers.
- In March 2016, the Capesize orderbook totalled 7% of the fleet, while the ratio currently stands at 2%. Last year, the capesize fleet shrank by 0.1 per cent to 193.4 Mn Dwt.
- But VLOC orderbook at 23.1 Mn Dwt in total
- The Panamax and Kamsarmax segments also trending positive, driven largely by an increase in cargoes out of South America carrying grain, and price differences in coal between the Chinese domestic market and the import market, with imports trading at up to a 10 per cent discount.
- The recent ban on coal imports from North Korea is expected to contribute to a firming in demand for the majority of 2017. The country supplies 22.8 Mn tonnes of anthracite to China, about 85% of Chinese anthracite imports. We expect the ban to create 1.6% extra demand growth for the segment in 2017.
- Handysizes and smaller segments also benefitting from the current improvements in the market. 1 year TC rates have increased 19.2% to USD 7,750 and 26.6% to USD 9,500 for Handysizes and Supramaxes respectively since the start of the year. For Supra’s this is the highest rate since end August 2015.
- The short term nature of many of the above factors may well lead to an overinflated sentiment that runs ahead of fundamentals.
- Supply side discipline essential for market recovery. Renewed newbuilding activity could compromise and prolong any sustainable improvement in the market.
- Uncertainty on upcoming enforcement of the IMO’s Ballast Water Management convention, set to happen on September 8 2017.
- 659 vessels will enter the demolition candidate pool (ships 20 years and older).
- Low sulphur regulations that are set to enter into force in 2020 will add to the cost of operations.
ASSUMPTIONS FOR AFFINITY’S FORECASTS

SUPPLY
Dry cargo contracting to stay slow
Dry cargo demolitions to continue
Removals from Orderbook (approx. 11.0 Mn Dwt in 2016) to continue as yards fail and orders are renegotiated or cancelled
Ballast Water Treatment System to reduce effective lifespan of bulk carriers to around 22 years compared to a long-run average of 25

- Estimated deliveries by size band

<table>
<thead>
<tr>
<th>Size / Mn Dwt</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handy / Supra / Ultramax</td>
<td>13.5</td>
<td>4.2</td>
<td>5.3</td>
<td>5.9</td>
<td>5.7</td>
</tr>
<tr>
<td>Panamax / Kamsarmax</td>
<td>10.8</td>
<td>1.5</td>
<td>2.0</td>
<td>3.1</td>
<td>4.1</td>
</tr>
<tr>
<td>Capesize</td>
<td>15.2</td>
<td>14.9</td>
<td>11.2</td>
<td>5.8</td>
<td>7.7</td>
</tr>
</tbody>
</table>

DEMAND
Base case: only marginal changes in demand growth going forward to 2021.
Owners should consider this before investing
SUPPLY MUST REACT TO FLAT DEMAND GROWTH FOR DRY CARGO OWNERS TO SURVIVE

Combined bulk carrier fleet supply and demand scenarios to 2021

Our base case is that the dry cargo markets will see an aggregate of zero demand growth out to 2021. Even if demand growth returns to its historic average of 4.4% per annum, owners must continue to manage supply. Thus our base case supply scenario envisages 30% slippage in the orderbook, the cancellation of overdue orders, slow steaming being a permanent fixture and the average life of a bulker being reduced to 22 years by the Ballast Water Management Convention (comes into force 8 September 2017). In this case, supply growth levels off to zero with the fleet at around 700 Mn Dwt, giving steady utilisation of around 80%, slightly above the long term average of 78%.
...WHEN EXPRESSED AS CAPACITY UTILISATION, THERE ARE CLEAR IMPLICATIONS FOR FREIGHT RATES...

Combined all dry bulk capacity utilisation scenarios to 2021

The BDI averaged 673 points in 2016, and while the market has improved since then (average BDI for 2017 YTD is 870) market movements remain positional rather than fundamental. Prospects for the BDI remain underwhelming even with strict supply-side discipline.
Our base case includes cancellation of all overdue orders, accounts for 30% slippage in delivery schedules, assumes all ships sail at 12.5 knots on average, and that average economic life is 22 years. The base case also assumes 2% annual demand growth for iron ore, however this will mostly be taken up by the VLOC segment. The step down in utilisation is a consequence of VLOC deliveries in 2017. VLOC orders dominated contracting Dwt in 2016.
Panamax / Kamsarmax utilisation base case

Panamax utilisation in our model is a function of zero demand growth and the same supply side constraints as per Capesizes. While the prospect for grain and coal remain positive in the near term, the orderbook remains onerous and real improvement will only happen when demolitions happen to ships in their mid-teens on average.
Prospects for the geared bulk carrier fleet are less depressing on the basis that demand continues to be seen to grow especially in the minor bulks, grain and coal (for now; long term prospects for coal remain weak), supporting these ship types, which also steal cargo from the larger and older Panamax bulkers. Forecasting freight markets remains a difficult exercise however as the geared bulker markets continue to evolve with ship sizes. Our best guess for 2017: watch copper, grains and coke, beware steel products tariffs, look for positional opportunities. It is an operators’ market.
DEMAND TO ONLY INCREASE MARGINALLY BY THE END OF DECADE

March 2017
Iron ore imports to China have been steadily increasing due to high availability of cheap ore from Australia and Brazil. This despite a reduction in steel making capacity, supported by capacity cuts in China’s domestic iron ore production.

Chinese iron ore is of low quality relative to imports, and often vastly more expensive to extract and transport to its end user.
Indian energy consumption is on the rise and is closely correlated to its urbanised population.

Should India’s urbanisation rate continue at the current pace, which for the past decade has been 1.14 per cent per year, we can expect India’s coal consumption to increase to between 450 and 500 Mn tonnes by 2020 and approximately 380 Mn tonnes by 2017. That’s up 5.5 per cent from 2014 which saw 360 Mn tonnes consumed.

However, a mounting problem with pollution spurring policy changes and the increasing availability of renewable energy sources may see this relationship weaken.
SEABORNE COAL BY VESSEL CATEGORY

Graph shows what percentage of coal trade is carried on respective vessel types.
SEABORNE IRON ORE BY VESSEL CATEGORY
Graph shows what percentage of iron ore trade is carried on respective vessel types.

Dry Bulk Market Outlook
March 2017
Combined % growth for 2016 is estimated to have been around 3% and is expected to average about 1% towards the end of the decade.
TONNE MILE GROWTH

Dry Bulk Market Outlook
March 2017
LIMITED CONTRACTING FOR NB DELIVERIES SET TO DECLINE STRONG DEMOLITIONS TO LAST

March 2017
CONTRACTING AND DEMOLITION: HOPE FOR THE FUTURE

Graphs show vessel contracting and demolitions for vessels ranging from 10,000 Dwt and upwards.
## DRY BULK FLEET AGE GROUPS

Table showing all size types by age in number of ships.

<table>
<thead>
<tr>
<th></th>
<th>Orderbook of which ordered before 2014</th>
<th>00-04 years</th>
<th>05-09 years</th>
<th>10-14 years</th>
<th>15-19 years</th>
<th>20-24 years</th>
<th>25+ years</th>
<th>Total Fleet</th>
<th>Orderbook as % of Total Fleet</th>
</tr>
</thead>
<tbody>
<tr>
<td>VLOC</td>
<td>69</td>
<td>63</td>
<td>93</td>
<td>6</td>
<td>2</td>
<td>40</td>
<td>16</td>
<td>220</td>
<td>31%</td>
</tr>
<tr>
<td>Newcastlemax</td>
<td>36</td>
<td>121</td>
<td>65</td>
<td>43</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>232</td>
<td>16%</td>
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<tr>
<td>Capesize</td>
<td>27</td>
<td>211</td>
<td>579</td>
<td>180</td>
<td>83</td>
<td>35</td>
<td>6</td>
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<td>Small Capesize</td>
<td>1</td>
<td>24</td>
<td>96</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>127</td>
<td>1%</td>
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<tr>
<td>PostPanamax</td>
<td>35</td>
<td>124</td>
<td>266</td>
<td>60</td>
<td>28</td>
<td>8</td>
<td>4</td>
<td>490</td>
<td>7%</td>
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<tr>
<td>Panamax</td>
<td>23</td>
<td>150</td>
<td>297</td>
<td>266</td>
<td>282</td>
<td>134</td>
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<td>1158</td>
<td>2%</td>
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<tr>
<td>Kamsarmax</td>
<td>98</td>
<td>404</td>
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<td>55</td>
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<td>0</td>
<td>815</td>
<td>12%</td>
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<td>Ultramax</td>
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<td>535</td>
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<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Supramax</td>
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<td>261</td>
<td>1148</td>
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<td>142</td>
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<td>0</td>
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<td>Handymax</td>
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<td>223</td>
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<td>6%</td>
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<tr>
<td>% of Total Fleet</td>
<td>7%</td>
<td>27%</td>
<td>42%</td>
<td>13%</td>
<td>9%</td>
<td>6%</td>
<td>3%</td>
<td>9967</td>
<td>7%</td>
</tr>
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# DRY BULK FLEET AGE GROUPS

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<th>25+ years</th>
<th>Total Fleet</th>
<th>Orderbook as % of Total Fleet</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>0.79</td>
<td>28.16</td>
<td>1.48</td>
<td>0.46</td>
<td>11.16</td>
<td>4.38</td>
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<tr>
<td>VLOC</td>
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<td>23.13</td>
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<td></td>
<td>47.98</td>
<td>16%</td>
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<tr>
<td>Newcastlemax</td>
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<td>7.49</td>
<td>13.44</td>
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<td>0.62</td>
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<tr>
<td>Capesize</td>
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<td>4.80</td>
<td>103.31</td>
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<td>Small Capesize</td>
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<td>10.90</td>
<td>0.31</td>
<td>0.32</td>
<td>0.00</td>
<td>0.11</td>
<td>43.93</td>
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<tr>
<td>PostPanamax</td>
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<td>2.92</td>
<td>24.49</td>
<td>5.31</td>
<td>2.33</td>
<td>0.73</td>
<td>0.36</td>
<td>86.53</td>
<td>2%</td>
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<tr>
<td>Panamax</td>
<td></td>
<td>1.66</td>
<td>22.67</td>
<td>20.19</td>
<td>20.92</td>
<td>9.48</td>
<td>1.92</td>
<td>66.70</td>
<td>12%</td>
</tr>
<tr>
<td>Kamsarmax</td>
<td></td>
<td>8.00</td>
<td>29.13</td>
<td>4.54</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>37.64</td>
<td>31%</td>
</tr>
<tr>
<td>Ultramax</td>
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<td>11.52</td>
<td>4.26</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>106.57</td>
<td>1%</td>
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<td>Supramax</td>
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<td>1.46</td>
<td>64.82</td>
<td>19.63</td>
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<td>0.00</td>
<td>0.00</td>
<td>25.33</td>
<td>2%</td>
</tr>
<tr>
<td>Handymax</td>
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<td>0.61</td>
<td>3.12</td>
<td>0.99</td>
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<td>7.67</td>
<td>2.26</td>
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<td>Handysize</td>
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<td>36.85</td>
<td>8.01</td>
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<td>5.70</td>
<td>4.92</td>
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<tr>
<td>Total Fleet</td>
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<td>341.16</td>
<td>100.92</td>
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<td>40.79</td>
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<td>9%</td>
<td>9%</td>
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<tr>
<td>% of Total Fleet</td>
<td></td>
<td>9%</td>
<td>44%</td>
<td>13%</td>
<td>8%</td>
<td>5%</td>
<td>2%</td>
<td>9%</td>
<td>9%</td>
</tr>
</tbody>
</table>
DRY BULK CUMULATIVE FLEET

Including dry bulk carriers over 10,000 Dwt

While the orderbook for 2017 is very large, high levels of slippage are expected. The low orderbook for 2018 is indicative of the diminished appetite for new tonnage, as the market struggles with a slump on the demand side.

Considering that around 47 Mn Dwt delivered in 2016 vs the more than 60 Mn Dwt originally scheduled to get delivered, it seems unlikely that all the 43 Mn Dwt scheduled to deliver in the balance of the year will in fact arrive on time. If shipyard performance in 2016 is consistent, then over one third of this year’s scheduled deliveries will be pushed back to later years or dropped altogether.

The dry bulk fleet saw a rapid expansion following the large scale ordering at the peak in 2008. Fleet growth has slowed down significantly in line with the current condition of the freight market, predominately due to high levels of demolition and minimal contracting activity.
The Kamsarmax segment is defined as vessels between 80,000Dwt and 84,999 Dwt with a beam less than 32.26, a LoA less than 236m and a draft less than 21m.

The average fleet age in the Kamsarmax segment is 4.6 years.

A large volume of deliveries in 2012 can be attributed to heavy investment in the sector prior to the collapse of the freight markets in the latter part of 2008, as well as delays and rescheduled deliveries.
The graphs show the development of the Panamax segment with the year on year percentage change in fleet size.

This data shows the development of the Panamax fleet, taking into account all capacity added to the sector and deletions.

Recent high demolition activity has led to negative fleet growth in the Panamax sector. January 2017 continues that trend, but at a lower intensity, with 0.5 Mn Dwt scrapped; this is 6 per cent of total Panamax demolitions in 2016. This is partially due to the increased popularity of the Kamsarmax segment.
ULTRAMAX

Ultramax is defined as 60,000 to 69,999 Dwt, built after 2009, and are geared, usually 5 hold / 5 hatch arrangement and less than 200m LOA.

The Dry Bulk fleet is constantly evolving, thus the Ultramax sector only started being delivered from 2010 onwards.

The current orderbook accounts for 30 per cent of the current fleet.
The graphs show the development of the Handymax fleet, with year on year additions and deletions as well as the annual percentage change.

These graphs clearly show how demolition figures in this segment spiked as a result of international financial turmoil; noticeably in 1986 and more recently in the aftermath of the 2008 financial crisis, the latter of which has resulted in sustained negative growth since 2009.

The fleet is also shrinking as bulk carrier designs have evolved into Supramax and Ultramax.
DRY BULK SLIPPAGE BY SIZE BAND – START OF PERIOD

Slippage and Cancellations.

Dry Cargo Market Outlook
March 2017
EARNINGS IMPROVING BUT STILL RATHER LOW

March 2017
CAPESIZE TC RATES AND BCI
PANAMAX TC RATES AND BPI
RECOVERY IN 5 YO PRICES FOR PANAMAX AND HANDYSIZE

March 2017
PANAMAX ASSET VALUES

Year

Mn USD

Resale 5 YO 10 YO 15 YO
AFFINITY GLOBAL OFFICES

LONDON
- Dry Cargo
- Tankers
- LNG
- Finance
- Sale & Purchase
- Newbuilding
- Research
- Valuations

SEOUL
- Sale & Purchase
- Newbuilding
- LNG

BEIJING
- Tankers
- Dry Cargo

SINGAPORE
- Dry Cargo
- Sale & Purchase
- Tankers

SYDNEY, MELBOURNE & PERTH
- Dry Cargo
- Tankers

HOUSTON
- Tankers

SANTIAGO
- Dry Cargo
- Tankers
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