The end of the liner shipping crisis?
The beginning of the end
or merely the end of the beginning?

Alan Murphy
CEO and Co-Founder
SeaIntel Maritime Analysis

November 23rd, 2017
ALMC 2017
Container Shipping Analysts
- Founded January 6th, 2011
- Fully independent, private company with no interests from brokers, banks or others.
- 12 Analysts, Developers & Consultants in Copenhagen and Hong Kong.
- Management Team with combined 55 years of experience in Container Shipping

Core values:
- Integrity
- Methodology
- Assumptions
- Data Quality

Major Milestones:
- 900+ Research & Analysis articles published since March 2011
- 5,000+ citations in Industry Press (Lloyd’s List, JoC, etc.)
- Official Knowledge Partner of the Global Institute of Logistics
- World’s most comprehensive database on Carrier Reliability
- Curriculum provider at the World Maritime University
- Curriculum provider at the Blue MBA at Copenhagen Business School
SeaIntel subscription reports

SeaIntel Sunday Spotlight (SSS) - Weekly

- Weekly report on relevant container market analysis
- Quantitative insights into important market drivers
- Regular topics include: Supply/Demand, deployment patterns, freight rate analysis, environmental issues, reliability, and much more

Global Liner Performance (GLP) report - Monthly

- World’s largest study of carrier on-time performance
- Report covering 65+ carriers, 300+ distinct carrier services/loops, 300+ ports, across 34 trade lanes
- 116 pages including global carrier performance Top20 and niche operators, benchmarking alliances and detailed trade performance
- 12-week future outlook on container space supply
- Most accurate and updated capacity deployment figures for 23 trade lanes between Asia, Europe, North and South America
- Based on actual vessel schedules of individual

Tradelane Capacity Outlook (TCO) report -
8 Years of over-supply
Gap in Supply/Demand opened in 2009

Supply/Demand growth on Index basis, adjusted for structural factor

Average Vessel size Asia-Europe and TP

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ALMC 2017 – November 2017
Freight rate volatility is through the roof

Asia-N. Europe Spot Rates and Announced Increases

Rate data based on SCFI from Shanghai Shipping Exchange
## Shipping Lines’ P&L 2009-2016

<table>
<thead>
<tr>
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<tbody>
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<td>-1,977.000</td>
<td>2,820.000</td>
<td>-482.000</td>
<td>525.000</td>
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<td>2,504.000</td>
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<tr>
<td>CMA CGM**</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1,034.000</td>
<td>756.000</td>
<td>973.200</td>
<td>910.600</td>
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<td>APL**</td>
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<td>490.000</td>
<td>-446.000</td>
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<td>-234.000</td>
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<td>COSCO***</td>
<td>-1,143.063</td>
<td>543.148</td>
<td>-997.074</td>
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<td>-161.461</td>
<td>165.126</td>
<td>162.305</td>
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<td>-911.740</td>
<td>675.304</td>
<td>-393.363</td>
<td>69.033</td>
<td>-395.112</td>
<td>318.971</td>
<td>-384.706</td>
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<tr>
<td>Hapag-Lloyd*</td>
<td>-490.291</td>
<td>772.591</td>
<td>104.392</td>
<td>3.964</td>
<td>87.680</td>
<td>-383.000</td>
<td>366.000</td>
<td>140.000</td>
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<tr>
<td>Hanjin****</td>
<td>-652.000</td>
<td>571.770</td>
<td>-507.330</td>
<td>-146.430</td>
<td>-285.210</td>
<td>137.000</td>
<td>119.000</td>
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<tr>
<td>OOCL*</td>
<td>-325.500</td>
<td>896.700</td>
<td>131.800</td>
<td>229.546</td>
<td>75.100</td>
<td>249.400</td>
<td>294.000</td>
<td>-185.000</td>
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<tr>
<td>MOL*****</td>
<td>-704.000</td>
<td>344.400</td>
<td>-217.600</td>
<td>-185.600</td>
<td>-115.200</td>
<td>-205.840</td>
<td>-191.350</td>
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<td>ZIM*</td>
<td>-675.000</td>
<td>223.000</td>
<td>-276.000</td>
<td>-428.000</td>
<td>-190.610</td>
<td>-263.378</td>
<td>98.026</td>
<td>-54.300</td>
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*EBIT, **Core EBIT, ***Segment Profit/Loss, ****Operating Profit/Loss, *****Segment Income/Loss
Shipping Lines’ P&L per Transferred TEU

USD/TEU

P&L per TEU, 2009-2016

Maersk Line  CMA CGM  APL  COSCO  CSCL  Hapag-Lloyd  Hanjin  OOCL  MOL  K Line  Zim

Impact on service levels
Lines blank sailings to manage excess capacity

Asia-NEUR services and blanked sailings
Lines blank sailings to manage excess capacity

Asia-USWC services and blanked sailings
2017 Reliability is poor, and is now declining
Mega-Alliances & Consolidation
What are the new (April 2017) alliances?

**April 2016**

- **2M Alliance**: MAERSK LINE, MEDITERRANEAN SHIPPING COMPANY
- **Ocean Three**: CMA CGM, HANJIN, K"LINE
- **CKYHE**: CMA CGM, EVERGREEN, OOCL, APL
- **G6 Alliance**: Hapag-Lloyd, NYK, MOL, NYK, NYK

**May 2016 (announced)**

- **2M Alliance**: MAERSK LINE, MEDITERRANEAN SHIPPING COMPANY
- **Ocean Alliance**: CMA CGM, HANJIN, K"LINE
- **THE Alliance**: Hapag-Lloyd, MOL, NYK, K"LINE

**April 2017 (reality)**

- **2M Alliance**: MEDITERRANEAN SHIPPING COMPANY
- **Ocean Alliance**: HAMBURG SÜD, HMM
- **THE Alliance**: NYK, K"LINE

<table>
<thead>
<tr>
<th>Alliance</th>
<th>Fleet+Order TEU</th>
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<tr>
<td><strong>April 2016</strong></td>
<td></td>
</tr>
<tr>
<td>2M Alliance</td>
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<tr>
<td>Ocean Three</td>
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<td>CKYHE</td>
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<td>G6 Alliance</td>
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<tr>
<td><strong>May 2016</strong></td>
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<tr>
<td>2M Alliance</td>
<td></td>
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<tr>
<td>Ocean Alliance</td>
<td></td>
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<tr>
<td>THE Alliance</td>
<td></td>
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<tr>
<td><strong>April 2017</strong></td>
<td></td>
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<tr>
<td>2M Alliance</td>
<td>4.40M</td>
</tr>
<tr>
<td>Ocean Alliance</td>
<td>3.07M</td>
</tr>
<tr>
<td>THE Alliance</td>
<td>1.66M</td>
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</table>
The level of consolidation is unprecedented
We will end up with 4-7 mega-carriers

Top 20 carrier fleets – Jan 2015

<table>
<thead>
<tr>
<th>Carrier</th>
<th>Fleet</th>
<th>Order</th>
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</thead>
<tbody>
<tr>
<td>Maersk</td>
<td></td>
<td></td>
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<tr>
<td>MSC</td>
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<tr>
<td>CMA CGM</td>
<td></td>
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<tr>
<td>Evergreen</td>
<td></td>
<td></td>
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<tr>
<td>Hapag-Lloyd</td>
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<tr>
<td>COSCO</td>
<td></td>
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<tr>
<td>CSCL</td>
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<tr>
<td>Hamburg Süd</td>
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<tr>
<td>Hanjin</td>
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<td>OOCL</td>
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<td>MOL</td>
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<td>UASC</td>
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<td>APL</td>
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<tr>
<td>Yang Ming</td>
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<td>NYK</td>
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<td>HMM</td>
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<tr>
<td>K Line</td>
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<td>Zim</td>
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<td>PIL</td>
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<tr>
<td>Wan Hai</td>
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</table>

Same carriers – Sep 2017

<table>
<thead>
<tr>
<th>Carrier GROUP</th>
<th>Fleet</th>
<th>Order</th>
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<tbody>
<tr>
<td>ML+HS</td>
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<tr>
<td>MSC</td>
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<tr>
<td>COSCO+CSCL+OOCL</td>
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<tr>
<td>CMA CGM+APL</td>
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<tr>
<td>ONE</td>
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<tr>
<td>Hapag-Lloyd+UASC</td>
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<tr>
<td>Evergreen</td>
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<tr>
<td>Yang Ming</td>
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<tr>
<td>PIL</td>
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<tr>
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<td>HMM</td>
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<tr>
<td>Wan Hai</td>
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</table>
So how does 2017 look?
Good 2017-9M demand, good Q4 projections

Trade Demand 2011-2017

YTD: 9.5%
YTD: 5.4%
YTD: 4.2%
YTD: 7.5%

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Freight rates were up, but have come down.
Rate erosion better on Asia-Europe, but not TP
2017-Q2 operating profits were good

Last year, all but one carrier recorded losses, this year all but two recorded operating profits
- All carriers improved upon their 2016-Q2 results
- The larger carriers seem to be ahead, with CMA, ML, and COSCO coming out on top

### Top-16 carriers - Q2 Segment EBIT/Operating Profit 2010-2017 in Thousands USD

<table>
<thead>
<tr>
<th>Carrier</th>
<th>2010-Q2</th>
<th>2011-Q2</th>
<th>2012-Q2</th>
<th>2013-Q2</th>
<th>2014-Q2</th>
<th>2015-Q2</th>
<th>2016-Q2</th>
<th>2017-Q2</th>
<th>Change Y/Y Q2 Delta 17-16</th>
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<tbody>
<tr>
<td>Maersk Line - EBIT</td>
<td>1,076,000</td>
<td>-49,000</td>
<td>265,000</td>
<td>467,000</td>
<td>567,000</td>
<td>530,000</td>
<td>-123,000</td>
<td>376,000</td>
<td>499,000</td>
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<tr>
<td>CMA CGM - Core EBIT</td>
<td>N/A</td>
<td>N/A</td>
<td>380,000</td>
<td>172,000</td>
<td>204,000</td>
<td>325,000</td>
<td>-81,000</td>
<td>472,000</td>
<td>553,000</td>
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<tr>
<td>COSCO - Segment Operating Profit*</td>
<td>74,640</td>
<td>-73,239</td>
<td>-103,166</td>
<td>-161,755</td>
<td>-69,968</td>
<td>268,422</td>
<td>-259,025</td>
<td>121,826</td>
<td>380,852</td>
</tr>
<tr>
<td>Evergreen - Operating Profit**</td>
<td>N/A</td>
<td>N/A</td>
<td>22,688</td>
<td>8,247</td>
<td>20,271</td>
<td>11,304</td>
<td>-36,182</td>
<td>72,748</td>
<td>108,929</td>
</tr>
<tr>
<td>OOCL - Segment Operating Profit*</td>
<td>149</td>
<td>80,908</td>
<td>30,434</td>
<td>-2,193</td>
<td>67,574</td>
<td>105,233</td>
<td>-38,162</td>
<td>10,888</td>
<td>49,048</td>
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<tr>
<td>Yang Ming - Operating Profit**</td>
<td>N/A</td>
<td>N/A</td>
<td>36</td>
<td>-80,260</td>
<td>16,961</td>
<td>-203</td>
<td>-148,007</td>
<td>4,690</td>
<td>152,697</td>
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<tr>
<td>MOL - Segment Profit/Loss</td>
<td>93,274</td>
<td>-66,173</td>
<td>-30,381</td>
<td>-11,171</td>
<td>-71,109</td>
<td>-41,508</td>
<td>-114,190</td>
<td>-55,093</td>
<td>59,096</td>
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<tr>
<td>NYK - Segment Recurring Profit</td>
<td>112,945</td>
<td>-105,091</td>
<td>-10,394</td>
<td>-6,383</td>
<td>-1,833</td>
<td>32,968</td>
<td>-86,661</td>
<td>50,668</td>
<td>137,329</td>
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<td>ZIM - EBIT</td>
<td>N/A</td>
<td>-79,000</td>
<td>1,000</td>
<td>-29,000</td>
<td>-9,300</td>
<td>41,600</td>
<td>-47,800</td>
<td>36,400</td>
<td>84,200</td>
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<td>HMM - Segment Operating Profit</td>
<td>139,200</td>
<td>-42,300</td>
<td>-39,600</td>
<td>-31,500</td>
<td>1,000</td>
<td>-44,100</td>
<td>-194,234</td>
<td>-81,752</td>
<td>112,482</td>
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<td>K Line - Segment Profit/Loss</td>
<td>97,366</td>
<td>95,160</td>
<td>7,380</td>
<td>0</td>
<td>21,560</td>
<td>34,030</td>
<td>-120,540</td>
<td>54,205</td>
<td>174,745</td>
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<td>Wan Hai - Operating Profit**</td>
<td>N/A</td>
<td>N/A</td>
<td>48,419</td>
<td>16,882</td>
<td>53,933</td>
<td>42,570</td>
<td>15,044</td>
<td>33,083</td>
<td>18,039</td>
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</tbody>
</table>

*Jan-Jun Profit/Loss divided by 2
**Group Profit/Loss
2017-Q3 Results have been a bit disappointing

Carriers were expecting strong 2017-Q3 peak season returns
Some analysts (not us!) were predicting FY2017 returns of 5-6 Bn USD
In reality, we are likely not going to breach 2.5-3 bn USD, but CMA CGM is not out yet
Again, the big carriers are dominating the positive results
Soft 2017-Q3 result due to low freight rates

- 2017-Q3 freight rates certainly better than the horrors of 2016
- 2017-Q3 freight rates barely at 2015 levels, and far below 2011-2014 levels
Which in turn were due to low utilisation
Massive over-capacity scheduled for 2017-Q4

Asia-North Europe: Q/Q Capacity Growth

2012-2016 avg Q/Q | 2017 Q/Q
--- | ---
Q1 | -2.9% | -1.0%
Q2 | 7.7% | 11.0%
Q3 | 3.2% | 4.7%
Q4 | -6.6% | -3.4%

12 average-sized blank sailings to balance

Asia-Mediterranean: Q/Q Capacity Growth

2012-2016 avg Q/Q | 2017 Q/Q
--- | ---
Q1 | 0.1% | -4.6%
Q2 | 12.4% | 11.1%
Q3 | 2.3% | 5.0%
Q4 | -5.7% | -10.2%

12 average-sized blank sailings to balance

Asia-USWC: Q/Q Capacity Growth

2012-2016 avg Q/Q | 2017 Q/Q
--- | ---
Q1 | -9.3% | 0.4%
Q2 | 13.9% | 6.0%
Q3 | 2.5% | 4.7%
Q4 | -4.5% | 0.0%

34 average-sized blank sailings to balance

Asia-USEC: Q/Q Capacity Growth

2012-2016 avg Q/Q | 2017 Q/Q
--- | ---
Q1 | -7.0% | -1.1%
Q2 | 16.3% | 17.8%
Q3 | 7.1% | 3.2%
Q4 | -9.0% | 0.4%

25 average-sized blank sailings to balance
Will we see a recovery in 2017/2018?
NO. Supply/Demand may balance in 2019/2020

Supply/Demand growth on Index basis, adjusted for structural factor

Monthly Asia-Europe Capacity
(assuming displacement of smallest vessel by alliance)
Balance possibly in 2019-20, but assumptions must be met:

1. **Complete freeze on new mega-vessel orders**

2. Continued high scrapping levels

3. Healthy global Head-haul demand growth of 4-6%

4. No rate war for market shares

5. Closing of A-E services in tune with deliveries

6. Ambitious market entrants may disrupt

7. No major oil price increases / regulations

**Bad News:**
- CMA CGM in the market for 22,000 teu ships
- Shipyards confirm talks for giant MSC order
- Media: CMA CGM gearing up to order new mega-vessels
- Asia-Europe trade could be set for 24,000 teu ships from 2019
- The great 22,000 teu ship race

**Good News:**
- Hapag-Lloyd turns its back on new ship orders
- Race for ever-larger container ships is not sustainable, warns Maersk chief
- Diego Aponte warns of supply chain nightmare if ships exceed 20,000 teu-class
1. Complete freeze on new mega-vessel orders

2. **Continued high scrapping levels**

3. Healthy global Head-haul demand growth of 4-6%

4. No rate war for market shares

5. Closing of A-E services in tune with deliveries

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7. No major oil price increases / regulations

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**Good News:**

Scrapped TEUs vs. Average Vessel Age

**Bad News:**

Ship Demolition Market Hits Standstill, While Shipping Needs More Scrapping To Recover

Demolition to slow in 2017 despite pressure to scrap vessels
Balance possibly in 2019-20, but assumptions must be met:

1. Complete freeze on new mega-vessel orders

2. Continued high scrapping levels

3. **Healthy global Headhaul demand growth of 4-6%**

4. No rate war for market shares

5. Closing of A-E services in tune with deliveries

6. Ambitious market entrants may disrupt

7. No major oil price increases / regulations

Looks feasible, although the past 8 years have seen demand with a CAGR of just 2.9%

4% Y/Y demand growth in 2017-2020 will balance capacity **by 2020, ceteris paribus**

5% Y/Y demand growth in 2017-2019 will balance capacity **by late 2019, ceteris paribus**

6% Y/Y demand growth in 2017-2019 will balance capacity **by early 2019, ceteris paribus**
Balance possibly in 2019-20, but assumptions must be met:

1. Complete freeze on new mega-vessel orders
2. Continued high scrapping levels
3. Healthy global Head-haul demand growth of 4-6%
4. **No rate war for market shares**
5. Closing of A-E services in tune with deliveries
6. Ambitious market entrants may disrupt
7. No major oil price increases / regulations

The main risks is carriers with large orderbooks relative to their charter ratio. If their fleet grows faster than the return of charter tonnage, they will have to grow market share to retain utilisation.

COSCO and Evergreen will be challenged, unless they can sub-charter to their alliance partners.
Carriers will have to close down Asia-Europe services in tune with the delivery of mega-vessels, as the vessel size will increase faster than demand.

At 5% demand growth, 3 services should be closed in 2018, with the option of reopening one in 2019.

Balance possibly in 2019-20, but assumptions must be met:

1. Complete freeze on new mega-vessel orders
2. Continued high scrapping levels
3. Healthy global Head-haul demand growth of 4-6%
4. No rate war for market shares
5. **Closing of A-E services in tune with deliveries**
6. Ambitious market entrants may disrupt
7. No major oil price increases / regulations
New market entrants may want to take advantage of the discounted newbuilding prices, and attempt to grow market share through a price war.

SM Line is the latest entrant to the TP trade, targeting an aggressive PNW market share of 10%.

Balance possibly in 2019-20, but assumptions must be met:

1. Complete freeze on new mega-vessel orders
2. Continued high scrapping levels
3. Healthy global Head-haul demand growth of 4-6%
4. No rate war for market shares
5. Closing of A-E services in tune with deliveries
6. Ambitious market entrants may disrupt
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Balance possibly in 2019-20, but assumptions must be met:

1. Complete freeze on new mega-vessel orders
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Source: Bunkerworld, TSA Carriers

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Tradelane Capacity Outlook: Annual subscription (52 issues) - €2000

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Mr Imaad Asad: ia@seaintel.com