# MDS Transmodal
# Container Shipping Bulletin

## November 2017

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MDS Transmodal

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## INTRODUCTION

MDS Transmodal is an independent consultancy specialising particularly in freight transport economics including shipping, ports, road and rail, logistics and distribution. We believe access to comprehensive and accurate data are the basis for good consultancy. For this purpose, we have developed and continue to maintain global trade and unit load shipping databases which we use to develop analyses for our clients. We have also built a series of integrated transport and financial models to examine strategic issues and undertake competition analyses.

Based upon these in-house databases, we now produce quarterly bulletins showing an overview of performance in the container shipping industry for the current quarter compared with the most recent quarters. This bulletin shows our estimated and forecast/projected demand, supply, utilisation levels, profitability and market shares by major operator. More detailed bespoke analyses are available.

For this edition, we show our forecasts for the third quarter of 2017 based upon data available at the beginning of November 2017, which combines actual trade data up to and including 2017Q2 for all countries, 2017Q3 data for Norway, Switzerland, Brazil and South Korea, with our forecasts for all other countries.

The richness and intertwining of our models can also be explored through our web application, the Box Trade Analyser (BTA), which acts as a gateway to our trade data, container supply data and outputs from financial modelling of the global container industry. The BTA is freely accessible for two weeks after the release of the Bulletin. Link: http://www.boxtradeanalyser.com.

## 1. DEMAND

Based upon the most recent trade data available at the beginning of November, we project that in the fourth quarter of 2017 global trade of non-unitised cargo could exceed a level of 2.8 billion tonnes, reflecting a growth of approximately 5.6% compared to the same quarter last year and a growth of 0.3% compared to the previous three months. The commodity group anticipated to experience the biggest growth in percentage terms during the fourth quarter of 2017 compared to the same quarter of 2016 is 'Agricultural', which is expected to see a growth of approximately 12%. On the other hand, 'Coal' is the commodity group for we expect the biggest decline in percentage terms during the same period, down by some 2.7%.

Our results are summarised in Table 1.

**Table 1: Global international trade, recent and forecast, mTonnes**

| | 2016Q4 | 2017Q1 | 2017Q2 | 2017Q3 (e) | 2017Q4 (f) |
|---|---|---|---|---|---|
| Agricultural | 188 | 197 | 192 | 209 | 211 |
| Metals | 11 | 11 | 12 | 12 | 12 |
| Oils & fats | 23 | 24 | 23 | 23 | 24 |
| Chemicals | 150 | 157 | 154 | 158 | 159 |
| Ores | 461 | 470 | 479 | 491 | 491 |
| Forest products | 102 | 101 | 105 | 107 | 107 |
| Energy: | | | | | |
| - Coal | 337 | 325 | 317 | 324 | 328 |
| - Oil & gas | 1,039 | 1,080 | 1,042 | 1,064 | 1,067 |
| Other | 411 | 413 | 466 | 480 | 476 |
| **Total Non-Unitised** | **2,721** | **2,779** | **2,790** | **2,867** | **2,874** |
| **Unitised** | **562** | **559** | **587** | **599** | **602** |
| **TOTAL Tonnes** | **3,283** | **3,337** | **3,377** | **3,465** | **3,476** |

*Source: MDS Transmodal, World Cargo Database October 2017 (e) = estimates; (f) = forecast*

Translating the unitised cargo into TEU, we anticipate a growth of approximately 6% between 2016Q4 and 2017Q4, exceeding a level of 71m TEU, with maritime flows expected to increase at similar rate to overland & roro traffic. Comparing 2017Q4 to 2017Q3 we expect more modest growth rates, as shown in the following table.

**Table 2: Global unitised international trade, mTEU**

| | 2016Q4 | 2017Q1 | 2017Q2 | 2017Q3 (e) | 2017Q4 (f) |
|---|---|---|---|---|---|
| Maritime containers | 35.4 | 35.1 | 37.4 | 37.8 | 37.8 |
| Other (overland & ro-ro) | 32.2 | 31.3 | 32.4 | 33.5 | 34.2 |
| **TOTAL TEU** | **67.7** | **66.4** | **69.8** | **71.3** | **71.9** |

*Source: MDS Transmodal, World Cargo Database October 2017 (e) = estimates; (f) = forecast*

Drilling down our analysis of unitised cargoes to the commodity level and comparing our projection for 2017Q4 with the same quarter of 2016, Table 3 shows that 'Mineral Manufactures', up from some 3.14m TEU to 3.50m TEU (+11.4%), is the commodity group for which we anticipate the highest growth in percentage terms during this period.

**Table 3: Top 10 SITC at 2-digit level, mTEU (ranked by volume 2017Q4)**

| | 2016Q4 | 2017Q4 (f) | % change |
|---|---|---|---|
| Vegetables & Fruit, Nuts | 4.02 | 4.08 | 1.5% |
| Miscellaneous Manufactures | 3.83 | 4.02 | 5.0% |
| Electrical Machinery | 3.44 | 3.51 | 2.1% |
| Mineral Manufactures | 3.14 | 3.50 | 11.4% |
| Road Vehicles | 2.58 | 2.80 | 8.2% |
| Rubber Manufactures | 2.48 | 2.66 | 7.5% |
| Textiles & Made-Up Articles | 2.30 | 2.53 | 9.9% |
| Furniture | 2.36 | 2.45 | 4.1% |
| Metal Manufactures - Other | 2.21 | 2.41 | 8.7% |
| Cereals & Cereal Preparations | 2.05 | 2.11 | 3.2% |
| Other | 39.26 | 41.89 | 6.7% |
| **Grand Total** | **67.7** | **71.9** | **6.3%** |

*Source: MDS Transmodal, World Cargo Database October 2017 (f) = forecast*

Breaking down the commodity group 'Mineral Manufactures' at the 5-digit level, we estimate that this increase is spread amongst the commodities, with the main commodity to increase at the fastest rate - 'Unglazed ceramic flags and paving' - projected to triple between 2016Q4 and 2017Q4. This SITC5D is anticipated to account for circa 17% of the total traffic of 'Mineral Manufactures' moved worldwide in 2017Q4.

Table 4 shows the major five exporting countries of 'Mineral Manufactures' in 2017Q4 compared to 2016Q4.

**Table 4: Top 5 exporting countries of 'Mineral Manufactures' in 2017Q4 compared to 2016Q4, mTEU (ranked by volume 2017Q4)**

| | 2016Q4 | 2017Q4 (f) | % change |
|---|---|---|---|
| China | 0.76 | 0.79 | 4.1% |
| Germany | 0.27 | 0.30 | 11.1% |
| Spain | 0.17 | 0.20 | 16.5% |
| Italy | 0.16 | 0.19 | 14.7% |
| USA | 0.14 | 0.14 | 0.9% |
| Other | 1.64 | 1.88 | 14.8% |
| **Grand Total** | **3.14** | **3.50** | **11.4%** |

*Source: MDS Transmodal, World Cargo Database October 2017 (f) = forecast*

Similar analyses for any other commodities are available on request.

Analysing our forecasts for global trade by importing country, we anticipate mixed fortunes for the top 10 countries during the fourth quarter of 2017 as compared to the same quarter last year, with Germany anticipated to see its imports up by 10.5% (from 4.34m TEU to 4.79m TEU) as shown in Table 5.

**Table 5: Top 10 importing countries, mTEU (ranked by volume 2017Q4)**

| | 2016Q4 | 2017Q4 (f) | % change |
|---|---|---|---|
| USA | 7.37 | 7.62 | 3.4% |
| Germany | 4.34 | 4.79 | 10.5% |
| China | 4.00 | 4.34 | 8.3% |
| France | 2.58 | 2.81 | 8.9% |
| Netherlands | 2.28 | 2.50 | 10.1% |
| United Kingdom | 2.38 | 2.43 | 2.3% |
| Italy | 2.01 | 2.15 | 6.9% |
| Canada | 1.95 | 2.11 | 8.1% |
| Switzerland | 1.64 | 1.71 | 4.3% |
| Belgium | 1.42 | 1.70 | 20.0% |
| Other | 37.69 | 39.78 | 5.5% |
| **Grand Total** | **67.7** | **71.9** | **6.3%** |

*Source: MDS Transmodal, World Cargo Database October 2017 (f) = forecast*

A detailed breakdown for Germany imports is shown below.

**Table 6: Major commodities imported into Germany, '000s TEU (ranked by volume 2017Q4)**

| Top 5 SITC 2D | 2016Q4 | 2017Q4 (f) | % change |
|---|---|---|---|
| Miscellaneous Manufactures | 259.1 | 281.9 | 9% |
| Vegetables & Fruit, Nuts | 260.4 | 274.9 | 6% |
| Road Vehicles | 235.3 | 272.2 | 16% |
| Electrical Machinery | 201.7 | 214.4 | 6% |
| Dairy Products & Eggs | 177.2 | 205.8 | 16% |
| All others | 3,205.4 | 3,545.7 | 11% |
| **Grand Total** | **4,339.1** | **4,795.0** | **11%** |

*Source: MDS Transmodal, World Cargo Database October 2017 (f) = forecast*

# 2. SUPPLY

In this chapter, we analyse the key points at which supply and demand can be measured at a global level, namely services passing through the Suez Canal and crossing the Atlantic and the Pacific. Based on our latest data, we expect the load factors to improve compared to last year only for the services crossing the Atlantic whereas services crossing the Pacific and those passing through Suez are expected to see a deterioration.

The results of our analysis are shown in the following sections.

## 2.A Supply – deployed capacity

The global annual capacity deployed on services in 2017Q4 is estimated to have increased by some 8.5% compared to the estimated capacity in 2016, now estimated to be of approximately 184m TEU. The number of deployed container vessels has gone up from 4,795 in 2016Q4 to 4,879 in 2017Q4, with the increase driven by the increase in the number of vessels with a capacity of 10,000TEU or more.

Extending the analysis back to 2007, we see that the number of ships scheduled to be deployed in 2017Q4 is lower than in 2007Q4 with, however, the capacity deployed increased by circa 50%.

**Table 7: Deployed capacity (mTEU) and number of vessels by ship size**

| | Ship size (TEU) | 2007Q4 | 2016Q4 | 2017Q4 |
|---|---|---|---|---|
| **Deployed Capacity (TEU)** | <5,000 | 99.0 | 102.2 | 108.5 |
| | 5,000-7,499 | 14.8 | 23.3 | 22.2 |
| | 7,500-9,999 | 8.7 | 22.6 | 27.2 |
| | 10,000-12,499 | 0.0 | 4.5 | 6.5 |
| | 12,500-14,999 | 0.7 | 11.2 | 12.1 |
| | 15,000+ | 0.0 | 5.5 | 7.3 |
| **Total Deployed Capacity (mTEU)** | | **123.2** | **169.4** | **183.8** |
| **No of vessels** | <5,000 | 4,589 | 3,510 | 3,523 |
| | 5,000-7,499 | 328 | 526 | 469 |
| | 7,500-9,999 | 172 | 449 | 527 |
| | 10,000-12,499 | 0 | 73 | 96 |
| | 12,500-14,999 | 8 | 169 | 172 |
| | 15,000+ | 0 | 68 | 92 |
| **Total No of vessels** | | **5,097** | **4,795** | **4,879** |

*Source: MDS Transmodal, (Container Business Model, November 2017*

Based on the ships on order at the time of this analysis, and not taking into account those that will be scrapped, we project that by 2020 the global fleet capacity could grow by almost 13% with capacity deployed in ships of 15,000 TEU or more expected to increase by some 64%.

**Table 8: Fleet capacity (TEU)**

| | Ship size (TEU) | Current (2017Q4) | Additional Fleet capacity (TEU) by 2020 |
|---|---|---|---|
| **Deployed Capacity (TEU)** | <5,000 | 8.3 | 0.5 |
| | 5,000-7,499 | 3.3 | 0.1 |
| | 7,500-9,999 | 4.4 | 0.1 |
| | 10,000-12,499 | 1.1 | 0.4 |
| | 12,500-14,999 | 2.8 | 0.5 |
| | 15,000+ | 1.6 | 1.1 |
| **Total Deployed Capacity (mTEU)** | | **21.4** | **2.7** |
| **No of vessels** | <5,000 | 5,602 | 241 |
| | 5,000-7,499 | 549 | 14 |
| | 7,500-9,999 | 498 | 6 |
| | 10,000-12,499 | 108 | 38 |
| | 12,500-14,999 | 203 | 39 |
| | 15,000+ | 87 | 56 |
| **Total No of vessels** | | **7,047** | **394** |

*Source: MDS Transmodal, Container Business Model, November 2017*

The following tables (Tables 9-11) summarise the capacity deployed on the major three routes (i.e. Gulf & ISC - Far East, Far East - North America and Europe & Med - Gulf & ISC - Far East) in 2017Q4 compared to the same quarter last year and to 2007Q4.

Table 9 shows that capacity deployed on the Gulf & ISC - Far East trade lane grew by approximately 12% compared to 2016 (the increase mainly driven by the expansion in ships of more than 10,000 TEU) and by some 126% compared to 2007.

**Table 9: Deployed capacity (mTEU) on the Gulf & ISC - Far East**

| Ship size (TEU) | 2007Q4 | 2016Q4 | 2017Q4 |
|---|---|---|---|
| <5,000 | 6.4 | 5.0 | 6.0 |
| 5,000-7,499 | 0.6 | 5.2 | 3.6 |
| 7,500-9,999 | 0.0 | 3.1 | 3.1 |
| 12,500-14,999 | 0.0 | 0.7 | 0.7 |
| 10,000-12,499 | 0.0 | 0.0 | 2.3 |
| **Grand Total** | **7.0** | **14.0** | **15.7** |

*Source: MDS Transmodal, Container Business Model, November 2017*

On the Far East - North America trade lane we report an increase of 20% in 2017Q4 compared to the same quarter of last year and an increase of 23% over 2007, with ships smaller than 10,000 TEU gradually replaced by bigger ships as described in table 10.

**Table 10: Deployed capacity (mTEU) on the Far East - North America**

| Ship size (TEU) | 2007Q4 | 2016Q4 | 2017Q4 |
|---|---|---|---|
| <5,000 | 6.0 | 1.2 | 1.7 |
| 5,000-7,499 | 5.3 | 4.0 | 4.9 |
| 7,500-9,999 | 1.3 | 5.8 | 5.7 |

| Ship size (TEU) | 2007Q4 | 2016Q4 | 2017Q4 |
|---|---|---|---|
| 10,000-12,499 | 0.0 | 1.1 | 1.1 |
| 12,500-14,999 | 0.0 | 0.7 | 2.1 |
| **Grand Total** | **12.6** | **12.9** | **15.5** |

*Source: MDS Transmodal, Container Business Model, November 2017*

On the Europe & Med - Gulf & ISC - Far East trade lane we estimate an overall increase of more than 11% between 2016Q4 and 2017Q4 with a rapid expansion in ships bigger than 12,500 TEU at the expense of smaller ships, which have been cascading to other routes. These results are shown in Table 11.

**Table 11: Deployed capacity (mTEU) on the Europe & Med - Gulf & ISC - Far East**

| Ship size (TEU) | 2007Q4 | 2016Q4 | 2017Q4 |
|---|---|---|---|
| <5,000 | 1.5 | 0.4 | 0.0 |
| 5,000-7,499 | 3.5 | 0.6 | 0.3 |
| 7,500-9,999 | 3.0 | 0.5 | 1.9 |
| 10,000-12,499 | 0.0 | 1.1 | 0.6 |
| 12,500-14,999 | 0.0 | 5.7 | 5.8 |
| 15,000+ | 0.0 | 2.6 | 3.6 |
| **Grand Total** | **8.1** | **10.9** | **12.2** |

*Source: MDS Transmodal, Container Business Model, November 2017*

## 2.B Supply – allocated capacity and utilisation

The key points at which supply (allocated capacity as described in Appendix A) and demand can be measured at a global level are on services passing through the Suez Canal and crossing the Atlantic and the Pacific respectively.

Table 12 shows that comparing the fourth quarter of 2017 with the same quarter of 2016 we project a deterioration in the utilisation level for the services passing through the Suez Canal and for those crossing the Pacific while for the services crossing the Atlantic we expect an improvement.

For the services passing through the Suez Canal, we project supply to increase by more than 8% in 2017Q4 compared to 2016Q4 whereas we expect demand to increase by some 5% during the same period.

For the services crossing the Atlantic our projection for the fourth quarter of 2017 is for supply to grow by approximately 10% versus demand expected to grow by 12% compared to the same quarter of 2016.

For the fourth quarter of 2017 we project Transpacific utilisation to reach a level of 64%, which means it will decline compared to 2016Q4 (down by three percentage points). This result is driven by supply growing at a rate of some 8% while demand is expected to increase at a slower rate (3%).

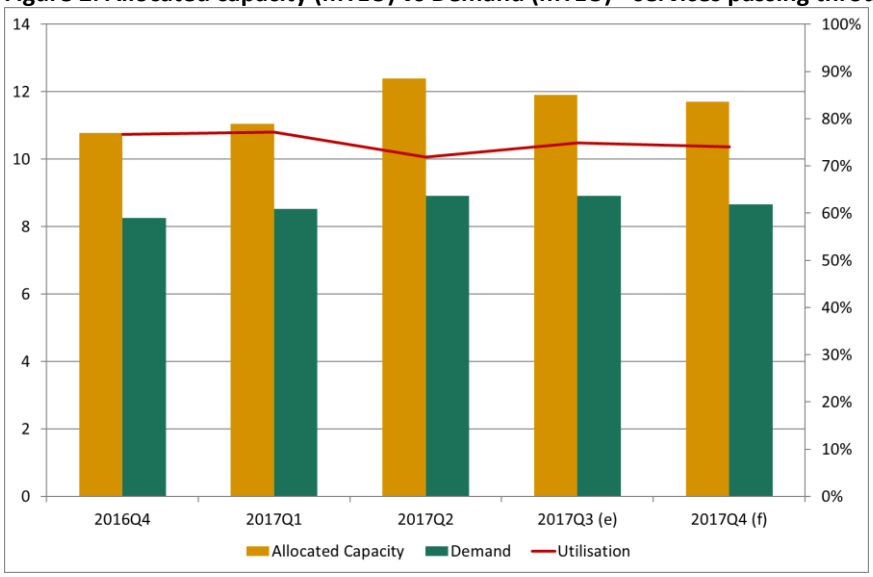
The overall results of our analysis are summarised in Table 12 and Figures 2-4.

**Table 12: Utilisation level by major routes (sum of both directions)**

| | 2016Q4 | 2017Q1 | 2017Q2 | 2017Q3 (e) | 2017Q4 (f) |
|---|---|---|---|---|---|
| Suez | 77% | 77% | 72% | 75% | 74% |
| Transatlantic | 62% | 61% | 53% | 66% | 63% |
| Transpacific | 67% | 63% | 60% | 65% | 64% |

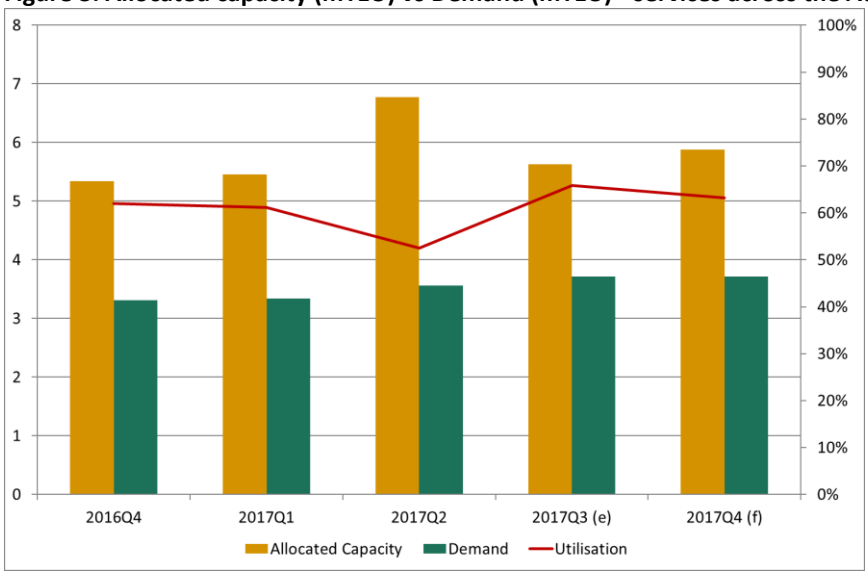
*Source: MDS Transmodal, Container Business Model, November 2017 (e) = estimates; (f) = forecast*

**Figure 2: Allocated capacity (mTEU) vs Demand (mTEU) - services passing through the Suez Canal**



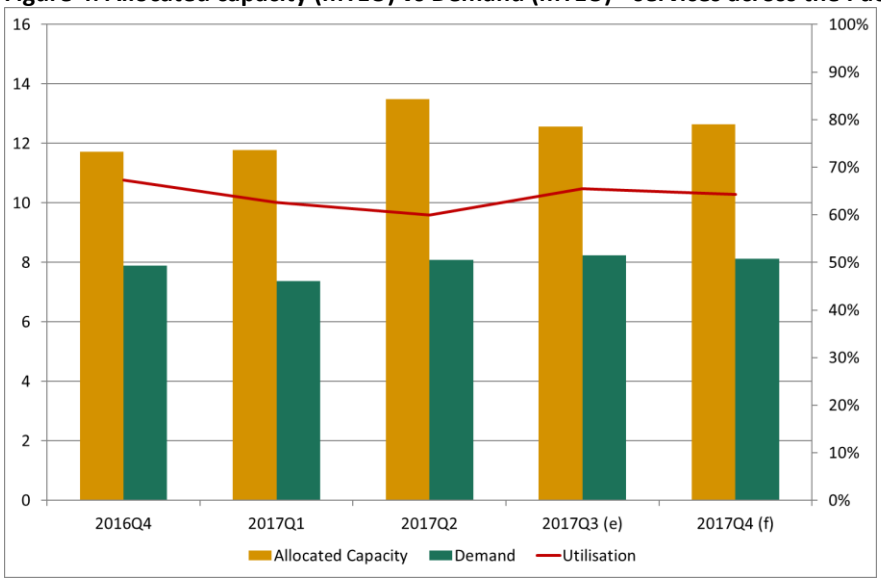

*Source: MDS Transmodal, Container Business Model, November 2017 (e) = estimates; (f) = forecast*

**Figure 3: Allocated capacity (mTEU) vs Demand (mTEU) - services across the Atlantic**




*Source: MDS Transmodal, Container Business Model, November 2017 (e) = estimates; (f) = forecast*

**Figure 4: Allocated capacity (mTEU) vs Demand (mTEU) - services across the Pacific**



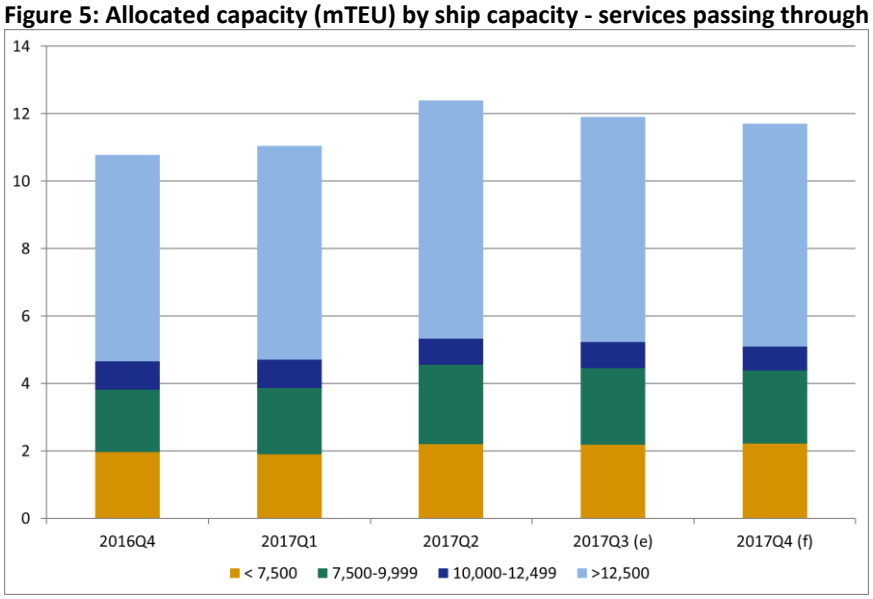

*Source: MDS Transmodal, Container Business Model, November 2017 (e) = estimates; (f) = forecast*

For each of these three markets, in the following three sections we analyse the allocated capacity by class of ship and by shipping line. Given the changes in alliances and other events affecting the container shipping industry, we show the market shares for the individual carriers without grouping them into alliances.

## 2.B.1 Services passing through the Suez Canal

In 2017Q4 the capacity allocated on the services passing through the Suez Canal is projected to increase by more than 8% compared to 2016Q4 and to decline by circa 2% compared to 2017Q3. We anticipate that between 2016Q3 and 2017Q3 ships of at least 10,000 TEU could experience an increase of some 5%.

**Figure 5: Allocated capacity (mTEU) by ship capacity - services passing through the Suez Canal**




*Source: MDS Transmodal, Container Business Model, November 2017 (e) = estimates; (f) = forecast*

Looking at the major shipping lines operating on these services we estimate that the top 10 operators account for approximately 91% of the total capacity allocated on these routes. This percentage has increased compared to both 2016Q4 and 2017Q3.

As shown in the following table, the 2M Alliance's members play a dominant role on these services, with Maersk and MSC both offering approximately 20% of the total capacity in 2017Q4. However, while MSC is projected to see an increase of some 15% between 2016Q4 and 2017Q4, Maersk is expected to report an increase of some 13%. However, comparing 2017 to the previous three months, MSC is expected to decline marginally its capacity while Maersk is expected to see an increase of more than 1%.

**Table 13: Market share by alliance and their members - services passing through the Suez Canal**

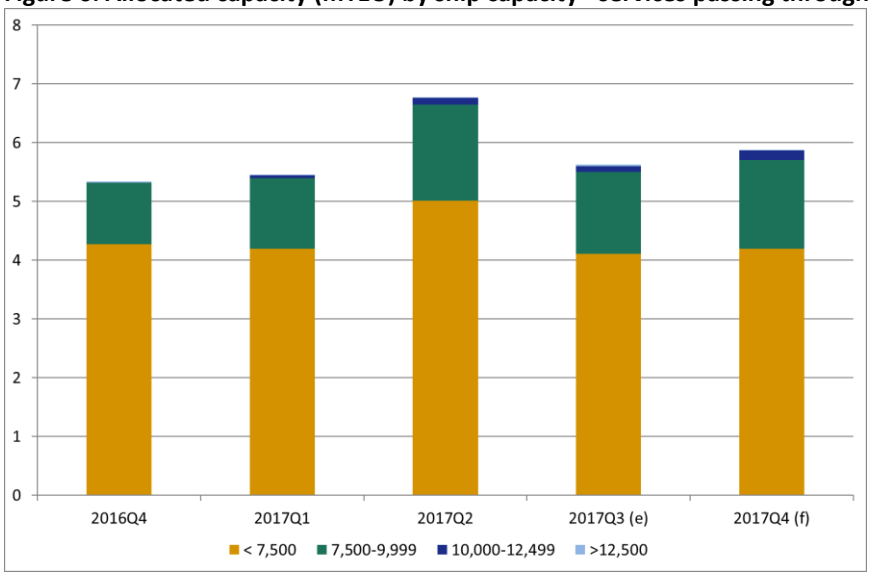
| Top 10 Operators | 2017Q4 (f) | 2017Q3 | 2016Q4 | Allocated capacity % change | |
|---|---|---|---|---|---|
| | | | | 2017Q4 vs 2016Q4 | 2017Q4 vs 2017Q3 |
| MSC | 22% | 21% | 20% | 14.9% | -0.5% |
| Maersk Line | 19% | 19% | 18% | 13.4% | 1.4% |
| CMA-CGM | 11% | 12% | 10% | 19.6% | -2.9% |
| Cosco & CSCL* | 10% | 9% | 9% | 11.0% | -0.5% |
| Hapag-Lloyd | 11% | 7% | 5% | 161.7% | 72.5% |
| Evergreen | 6% | 6% | 6% | 11.8% | -1.7% |
| Yang Ming | 4% | 4% | 4% | 27.7% | -1.3% |
| UASC | 0% | 6% | 7% | -100.0% | -100.0% |
| NYK | 5% | 4% | 3% | 75.2% | 8.2% |
| NOL | 3% | 3% | 2% | 33.9% | -9.7% |
| All others | 9% | 9% | 15% | -34.5% | -4.8% |
| **Grand Total** | **100%** | **100%** | **100%** | **8.6%** | **-1.7%** |

**merged from 2016Q3; Source: MDS Transmodal, Container Business Model, November 2017 (f) = forecast*

## 2.B.2 Services passing across the Atlantic

In 2017Q4 the capacity allocated on the services passing through the Atlantic is projected to increase by 10% compared to 2016Q4 and by 4% compared to 2017Q3. Analysing the allocated capacity by class of ship, we anticipate that between 2016Q4 and 2017Q4 the capacity on ships of at least 10,000 TEU could increase by more than 8 times. These ships, however, are estimated to account for less than 2% of the total allocated capacity in 2017Q4 with the relevant class of ship for these routes expected to remain those of less than 7,500TEU, projected to account for 71% of the total capacity (down from 73% in 2016Q4 and from 80% in 2017Q3).

**Figure 6: Allocated capacity (mTEU) by ship capacity - services passing through the Atlantic**




*Source: MDS Transmodal, Container Business Model, November 2017 (e) = estimates; (f) = forecast*

With a combined market share of circa 46%, we project the 2M Alliance's members will retain their strong position on the Atlantic routes (27% for MSC and 19% for Maersk Line), widening the gap between them and the other lines. Double-digit market shares are also anticipated for CMA-CGM (12%) and Hapag-Lloyd (11%).

**Table 14: Market share by alliance and their members - services passing across the Atlantic**

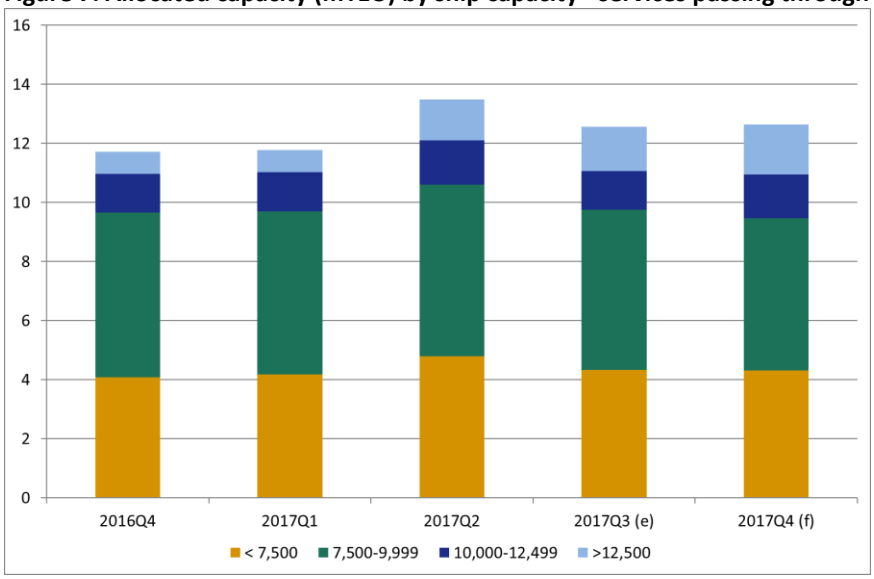
| Top 10 Operators | 2017Q4 (f) | 2017Q3 | 2016Q4 | Allocated capacity % change | |
|---|---|---|---|---|---|
| | | | | 2017Q4 vs 2016Q4 | 2017Q4 vs 2017Q3 |
| MSC | 27% | 26% | 26% | 14.4% | 8.9% |
| Maersk Line | 19% | 20% | 21% | 2.9% | -2.0% |
| CMA-CGM | 12% | 12% | 12% | 15.3% | 10.2% |
| Hapag-Lloyd | 11% | 10% | 14% | -12.6% | 12.8% |
| Hamburg-Sud | 5% | 6% | 7% | -12.5% | -5.9% |
| NYK | 3% | 3% | 1% | 130.8% | 7.4% |
| OOCL | 2% | 2% | 1% | 145.1% | 5.2% |
| MOL | 2% | 2% | 0% | 455.4% | 5.1% |
| K-Line | 2% | 2% | 1% | 262.2% | -1.2% |
| Yang Ming | 2% | 2% | 1% | 207.8% | 4.7% |
| All others | 16% | 16% | 18% | -4.2% | 0.1% |
| **Grand Total** | **100%** | **100%** | **100%** | **10.2%** | **4.5%** |

*Source: MDS Transmodal, Container Business Model, November 2017 (f) = forecast*

## 2.B.3 Services passing across the Pacific

For the fourth quarter of 2017, we project that the level of capacity allocated on the services passing through the Pacific could increase by 8% compared to the same quarter last year and increase by 0.5% compared to the previous three months, with ships of at least 10,000TEU expected to increase by some 50% compared to 2016Q4. This class of ship is now projected to account for some 21% of the total capacity (2017Q4), up from the 18% estimated for the same quarter last year.

**Figure 7: Allocated capacity (mTEU) by ship capacity - services passing through the Pacific**




*Source: MDS Transmodal, Container Business Model, November 2017 (e) = estimates; (f) = forecast*

Analysing the shipping lines operating on these routes, we expect Maersk to lead the group, with a market share of 16%. Compared to 2016Q4, we estimate that Maersk could report an increase of some 13% in 2017Q4. Scrolling down the list of the major 10 shipping lines in 2017Q4, we project Cosco & CSCL* and Evergreen to follow Maersk with a market share of 12% and 9% respectively as shown in the following table.

**Table 15: Market share by alliance and their members - services across through the Pacific**

| Top 10 Operators | 2017Q4 (f) | 2017Q3 | 2016Q4 | Allocated capacity % change | |
|---|---|---|---|---|---|
| | | | | 2017Q4 vs 2016Q4 | 2017Q4 vs 2017Q3 |
| Maersk Line | 16% | 17% | 15% | 13.4% | -3.1% |
| Cosco & CSCL* | 12% | 11% | 12% | 7.4% | 3.4% |
| Evergreen | 9% | 9% | 10% | 1.2% | 0.8% |
| CMA-CGM | 8% | 8% | 7% | 18.1% | -3.5% |
| MOL | 6% | 6% | 5% | 21.0% | 5.1% |
| MSC | 6% | 5% | 7% | -11.4% | 9.2% |
| Hapag-Lloyd | 6% | 5% | 5% | 25.7% | 8.8% |
| OOCL | 5% | 5% | 4% | 38.0% | 0.0% |
| NOL | 5% | 5% | 6% | -17.9% | 8.6% |
| K-Line | 4% | 4% | 4% | 6.9% | -3.1% |
| All others | 24% | 25% | 24% | 5.1% | -2.5% |
| **Grand Total** | **100%** | **100%** | **100%** | **7.8%** | **0.5%** |

**merged from 2016Q3; Source: MDS Transmodal, Container Business Model, November 2017 (f) = forecast*

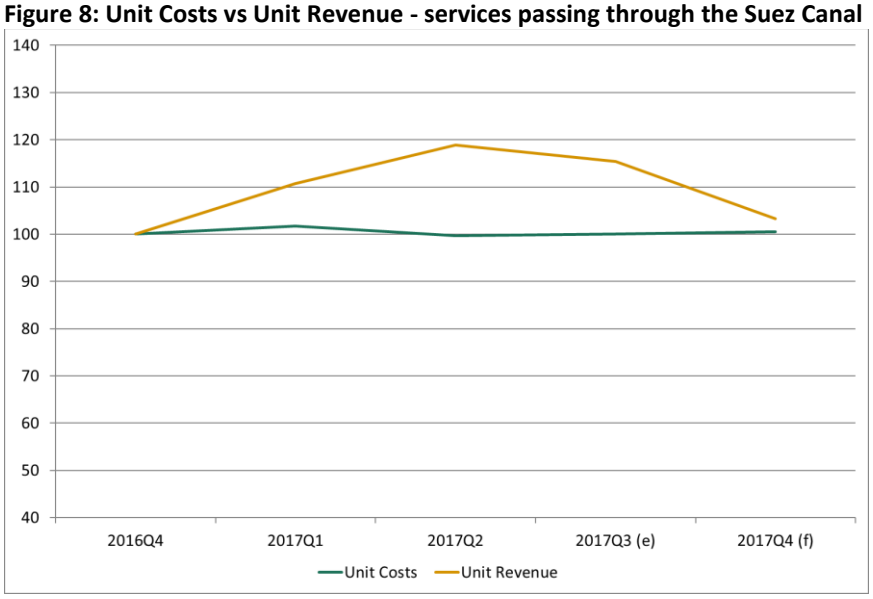
# 3. PROFITABILITY

## 3.B.1 Services passing through the Suez Canal

Based upon the data available at the beginning of November, for the services passing through the Suez Canal we project that in 2017Q4 unit costs could go up by 1% compared to the same quarter of last year and to remain flat compared to the last three months. Unit revenue is expected to increase by 3% compared to last year and to decline by more than 10% compared to last quarter.

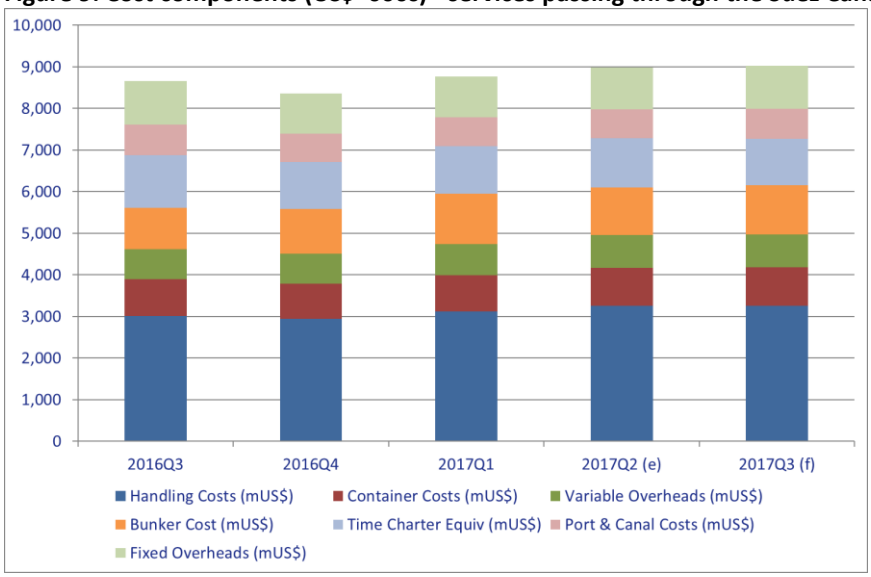
The following figures show the results of our analysis with Figure 9 illustrating our estimated costs by component.

**Figure 8: Unit Costs vs Unit Revenue - services passing through the Suez Canal**




*Source: MDS Transmodal, Container Business Model, November 2017 (e) = estimates; (f) = forecast*

**Figure 9: Cost components (US$ '000s) - services passing through the Suez Canal**



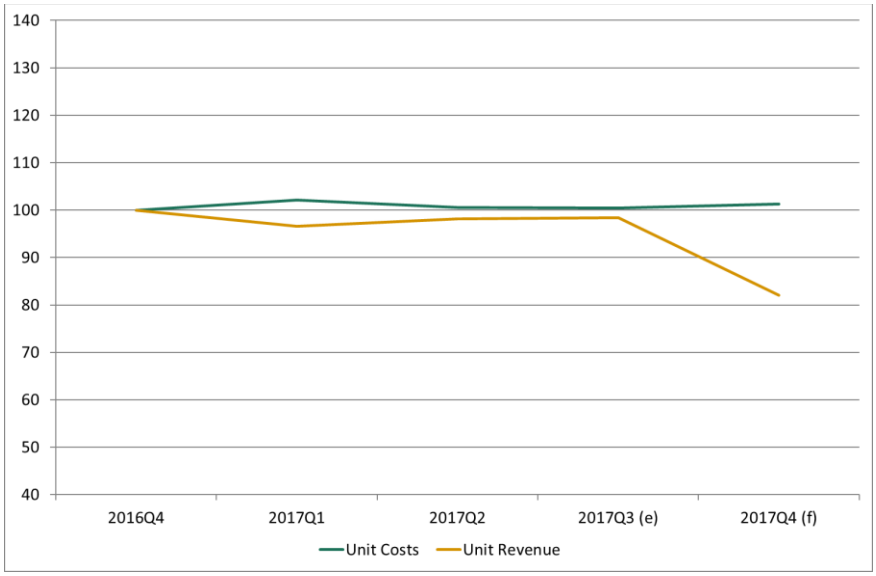

*Source: MDS Transmodal, Container Business Model, November 2017 (e) = estimates; (f) = forecast*

## 3.B.2 Services passing across the Atlantic

For the services passing across the Atlantic, we project that unit revenues could see a decline in the region of 17% during the fourth quarter of 2017 compared to both the same quarter of 2016 and to the previous three months. The decline in unit revenue is expected to be accompanied by a marginal increase in unit costs, which would translate into a deterioration in the profitability for this trade lane compared to last year.

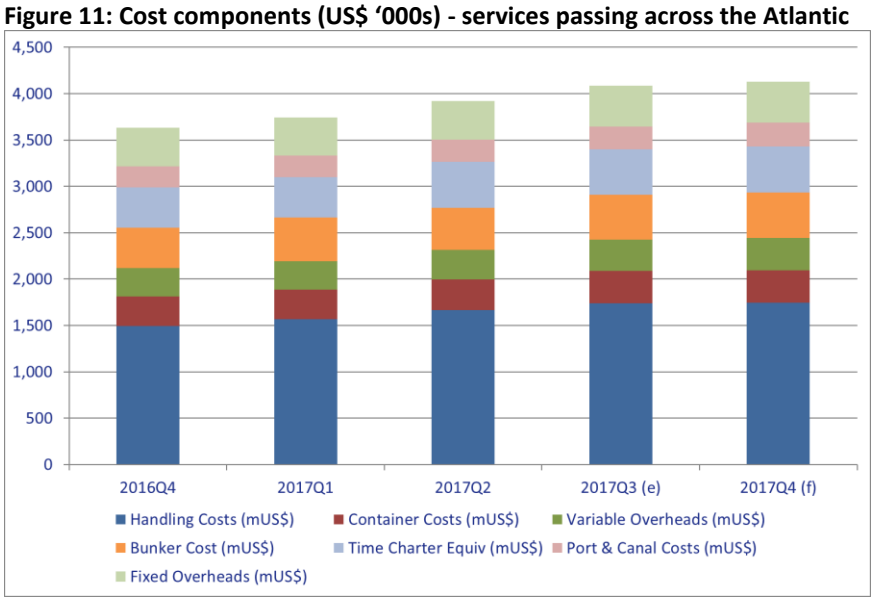
The following figures show the results of this analysis with Figure 11, illustrating our estimated costs by component, showing bunker costs increased by some 13% in 2017Q4 compared to the same quarter of 2016 and now estimated to account for some 12% of the overall costs projected for 2017Q4.

**Figure 10: Unit Costs vs Unit Revenue - services passing across the Atlantic**




*Source: MDS Transmodal, Container Business Model, November 2017 (e) = estimates; (f) = forecast*

**Figure 11: Cost components (US$ '000s) - services passing across the Atlantic**



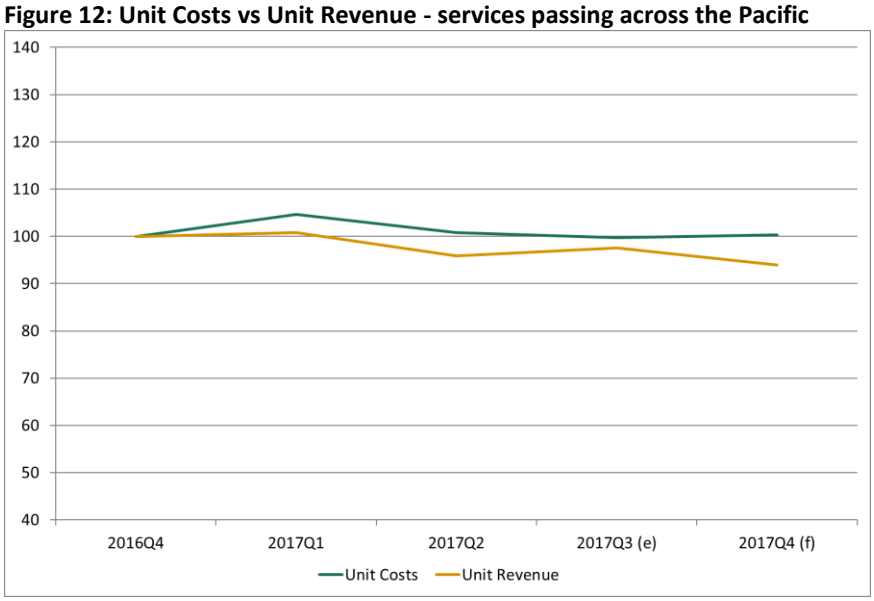

*Source: MDS Transmodal, Container Business Model, November 2017 (e) = estimates; (f) = forecast*

### 3.B.3 Services passing across the Pacific

For the services passing through the Pacific, we project unit revenues to decline in 2017Q4 compared to both last year and to last quarter. By contrast, unit costs are anticipated to remain flat in 2017Q4 compared to 2016Q4 and to increase by 1% compared to last quarter.

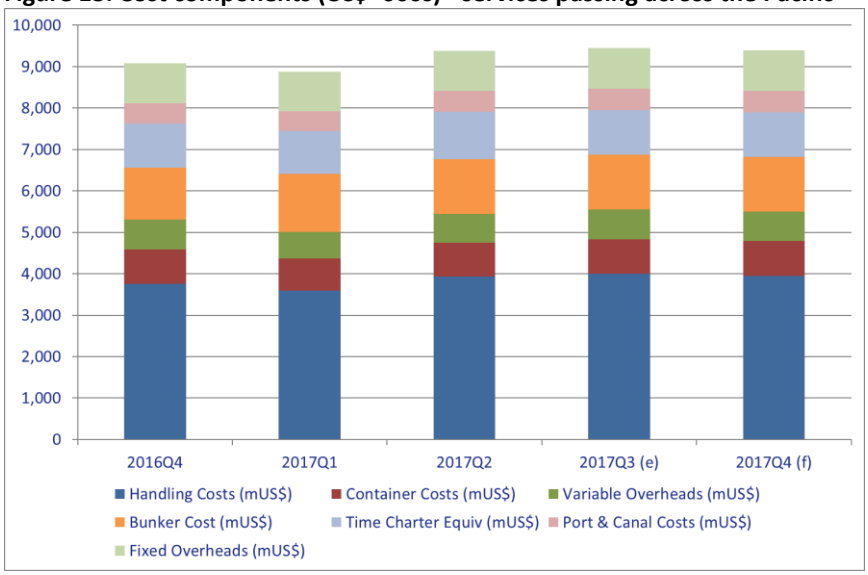
The results of our analysis are shown in the following two figures with Figure 13, the unit costs by cost component, showing bunker costs could increase by approximately 6% in 2017Q4 compared to 2016Q4.

**Figure 12: Unit Costs vs Unit Revenue - services passing across the Pacific**




*Source: MDS Transmodal, Container Business Model, November 2017 (e) = estimates; (f) = forecast*

**Figure 13: Cost components (US$ '000s) - services passing across the Pacific**




*Source: MDS Transmodal, Container Business Model, November 2017 (e) = estimates; (f) = forecast*

## Appendix A: 'Deployed' and 'Allocated' Capacity

We offer two measures of capacity, termed 'deployed' and 'allocated'. Deployed capacity is simply the nominal capacity of the vessel between any two ports/countries/regions called in on its service. With this measure, there arises the issue of double-counting: a 5,000 TEU vessel leaving Asia for Europe calling in the Middle East would offer 5,000 TEU deployed capacity from Asia to Europe, 5,000 TEU from Asia to the Middle East and 5,000 TEU from the Middle East to Europe.

To avoid this double-counting we have developed the 'allocated' capacity measure whereby the nominal TEU capacity of the vessel is allocated to the region to region routes that are connected by the vessel's service. This allocation is done using a formula that considers both the distance and the amount of unitised trade between the regions so that vessels on longer voyages are assumed to be more likely to carry a higher proportion of longer distance cargo, regardless of the intermediate ports of call. We believe that this reflects shipping line behaviour. Currently we perform this analysis on a global network broken down into 19 regions that match shipping and trade regions, (e.g. Asia is split into 5 regions; 3 covering China, North Asia and South East Asia) and we intend to disaggregate this further in the future.

There are additional controls in this modelling that ensure that the longer haul is only favoured where it makes economic sense. For example, a westbound round-the-world service would not carry traffic from America to Europe, and traffic solely within one of the 19 regions would only be carried by services that similarly only operate within that one region.

## About MDS Transmodal

MDS Transmodal is a consultancy founded in 1983, which provides analysis and advice on strategic, commercial and economic issues mainly related to freight transport and logistics. The consultancy has completed hundreds of projects involving research for, and providing advice to, private and public sector clients worldwide. In the container shipping sector, the consultancy works for shippers, shipping lines, port and terminal operators, trade associations and financial institutions, providing the following main services:

- Container trade forecasts at a global, national and trade lane level.
- Monitoring of global container shipping supply, the supply-demand balance and global container port demand.
- Modelling of the revenues, costs and profitability of the global container shipping industry as a whole and at a trade lane level.
- Market and feasibility studies, business cases and business plans for container terminals and related port infrastructure throughout the world.
- Assessment of the container shipping market, competition and market share analyses.
- Commercial due diligence services for buyers or vendors of container terminals.

High level analysis of global containerized trade, global container shipping supply and the supply-demand balance is published each month in Containerisation International. Our forecasts and analyses on the most topical issues of the global container shipping sector are covered in Lloyds List and trade data has also been used by the BBC when it was tracking an individual container around the world.

We crosscheck the outcomes of our financial model to the financial performances reported by the major shipping lines. For 2015, for instance, aligned to what is reported by the industry for 2015FY, we estimate a global mean revenue rate of approximately $1,100/TEU with a total turnover estimated to equate to some $158bn (up by less than 1%).

### For more information

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