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Chemical Forecaster
Executive Summary

Headline trends...

1. US starts exporting methanol to Asia
2. High number of deliveries in the first quarter
3. Bunker prices remain low
4. Time charter rates to decline from 2018
5. Soybean oil freight rates from South America to firm up

LONG-HAUL SHIPMENTS TO EUROPE AND ASIA INCREASE

Plant shutdowns to dampen intra-Asia trade and exports

The arbitrage window opened between North America, South America and Europe to Asia in the first quarter, leading to an influx of deep-sea methanol primarily from North and South America to Asia. The US exported about 224,000 tonnes of methanol to China during the quarter.

Competition on the Transpacific westbound route intensified as many large vessels started sailing on this route, and we expect some more large vessels to start sailing on this route in 2016.

As a result, freight rates on the back-haul trade from the Far East to the US have been under tremendous downward pressure lately.

Many plants will shut down for turnaround and maintenance in the second quarter, and this will dampen the intra-Asian market as well as the Asian export market, as Northeast Asia has been receiving more and more cargoes from long-haul routes.

Forty-eight newbuilds were delivered in the quarter, of which 26 were delivered in January. This surge can be attributed to owners deferring delivery dates to shift the build year forwards.

We expect 183 ships to join the fleet in 2016, but slippages at the end of the year could push 20 to 25 ships into next year.

New MR IMO-classed tanker deliveries to peak this year, while orders slow down

The global chemical fleet stood at 4,265 vessels aggregating 98.5 million dwt at the end of the first quarter. Tonnage supply grew mainly on the back of increased deliveries of MR tankers as ordering has been showing signs of a slowdown.

The existing fleet is still large in terms of capacity and we expect it to cross the 100 million mark by mid-year.

On the back of good long-haul shipment demand, MR tankers with IMO certificates have been popular in the time charter market. Drewry expects time charter rates in most size categories to remain stable until 2018 and decline thereafter as 365 newbuildings are likely to be delivered by 2018.

The premium of the soybean oil price over that of palm oil narrowed from $128 per tonne to $31 between January and March 2016, which will attract more buyers, especially those in India, to switch from palm oil to soybean oil. India has imported more soybean oil than ever, cutting the country’s reliance on palm oil.

The share of soft oils imported by India increased from 34% to 42% last year while that of palm oil products fell from 66% to 58%. Freight rates from South America to India and other Asian countries are expected to firm up in the next quarter.
**Executive Summary**

| Table 1.1  THE MARKET − AT A GLANCE |
|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|                   | 2010              | 2011              | 2012              | 2013              | 2014              | 2015(1)           |
| **Total Seaborne Chemical Trade (m tonnes)** | 191.2             | 200.4             | 206.8             | 214.1             | 217.1             | 226.6             |
| % Change          | 6.1%              | 4.8%              | 3.2%              | 3.6%              | 1.4%              | 4.4%              |
| **Of Which:**     |                   |                   |                   |                   |                   |                   |
| Organics (m tonnes) | 96.8              | 99.0              | 99.9              | 106.2             | 107.8             | 110.1             |
| % Change          | 9.8%              | 2.3%              | 0.9%              | 6.3%              | 1.5%              | 2.1%              |
| Inorganics (m tonnes) | 26.7              | 28.2              | 28.7              | 27.3              | 28.2              | 29.8              |
| % Change          | 5.4%              | 9.9%              | 1.6%              | -5.0%             | 3.3%              | 5.9%              |
| Vegetable/Animal Oils (m tonnes) | 35.8              | 56.8              | 62.9              | 65.8              | 67.3              | 72.4              |
| % Change          | 5.8%              | 2.3%              | 0.9%              | 6.3%              | 1.5%              | 2.1%              |
| Other Cargoes (m tonnes) | 12.0              | 16.3              | 15.3              | 14.9              | 13.9              | 14.2              |
| % Change          | 1.9%              | 36.3%             | -6.0%             | -2.9%             | -7.0%             | 2.8%              |
| **Total Seaborne Products Trade (m tonnes)** | 790.7             | 841.9             | 848.8             | 876.6             | 829.1             | 846.7             |
| % Change          | 6.2%              | 1.3%              | 3.8%              | 4.6%              | 3.7%              | 5.8%              |
| **Chemical Tanker Demand** − (bn tonne-miles) | 720.8             | 740.7             | 755.3             | 776.7             | 786.6             | 829.1             |
| % Change          | 5.9%              | 2.8%              | 2.0%              | 2.8%              | 1.3%              | 5.4%              |
| **Chemical Tanker Supply** (m dwt) | 82.3              | 83.0              | 86.6              | 88.9              | 92.9              | 97.2              |
| % Change          | 0.8%              | 4.3%              | 2.7%              | 4.5%              | 4.0%              | 6.5%              |
| **Chemical Tanker Fleet – Trading Chemicals** | 36.8              | 37.6              | 39.9              | 38.8              | 35.8              | 36.9              |
| % of Total Supply | 44.7%             | 45.3%             | 46.1%             | 43.7%             | 43.8%             | 38.0%             |
| **Orderbook (m dwt)** | 5.6               | 6.5               | 6.6               | 12.3              | 17.4              | 13.9              |
| % Fleet           | 7%                | 8%                | 8%                | 14%               | 19%               | 14%               |
| **Deliveries(2)** | 7.3               | 6.5               | 6.6               | 12.3              | 17.4              | 13.9              |
| % Fleet           | 7%                | 8%                | 8%                | 14%               | 19%               | 14%               |
| **Deletions(2)**  | 2.8               | 2.1               | 2.1               | 2.2               | 1.4               | 3.7               |
| % Fleet           | 7%                | 8%                | 8%                | 14%               | 19%               | 14%               |

**Estimated chemical tanker rates ($/day)**

- **IMO 2 8/9,000 stainless**: $21.1, $20.1, $22.5, $24.0, $24.4, $23.2, $22.5(5)
- **IMO 2 22/24,000 stainless**: $29.3, $37.0, $37.8, $40.9, $41.5, $37.2, $36.9(5)
- **IMO 2 22/24,000 coated**: $30.0, $26.0, $29.6, $30.3, $30.0, $27.5, $27.0(5)
- **IMO 2 35/37,000 coated**: $33.0, $32.0, $32.1, $33.6, $33.3, $30.8, $32.0(5)

**Spot rates ($/tonnes)**

- **Transatlantic - East 3,000**: 53, 61, 59, 58, 53, 68, 73, n/a, n/a
- **Transatlantic - West 3,000**: 36, 42, 49, 52, 56, 58, 52, n/a, n/a

**Newbuilding prices $m(6)**

- **IMO 2 8/9,000 stainless**: $21.1, $20.1, $22.5, $24.0, $24.4, $23.2, $22.5(5)
- **IMO 2 22/24,000 stainless**: $29.3, $37.0, $37.8, $40.9, $41.5, $37.2, $36.9(5)
- **IMO 2 22/24,000 coated**: $27.0, $26.0, $29.6, $30.3, $30.0, $27.5, $27.0(5)
- **IMO 2 35/37,000 coated**: $33.0, $32.0, $32.1, $33.6, $33.3, $30.8, $32.0(5)

**Second-hand prices $m(6)**

- **IMO 2 8/9,000 stainless**: 9.8, 8.5, 9.1, 9.8, 9.7, 9.0, 9.0(5)
- **IMO 2 22/24,000 stainless**: 20.9, 21.0, 21.5, 23.0, 23.2, 21.6, 22.7(5)
- **IMO 2 22/24,000 coated**: 15.2, 14.8, 14.4, 15.3, 15.4, 14.5, 15.6(5)
- **IMO 2 35/37,000 coated**: 18.0, 17.2, 16.8, 16.6, 17.5, 15.5, 17.5(5)

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(1) Projections for the year
(2) Demand measured in terms of billion tonne-miles
(3) Total Chemical Fleet: end-period and actual/projected deliveries/deletions during the year
(4) Period averages for all freight rates
(5) End-period
(6) March 2016

Source: Drewry Maritime Research
Executive Summary

Figure 1.1  CHEMICAL TANKER ORDERBOOK TO EXISTING FLEET* RATIO

* Fleet by wide definition - see Section 3

Source: Drewry Maritime Research

Figure 1.2  CHANGES IN CHEMICAL TANKER SUPPLY AND DEMAND (% CHANGE YEAR-ON-YEAR)

Note: Supply based on fleet trading in chemicals/veg oils. Demand based on tonne miles

Source: Drewry Maritime Research

Figure 1.3  DREWRY CHEMICAL TANKER FREIGHT INDEX (1Q07=100)

Source: Drewry Maritime Research

Figure 1.4  VEGETABLE OILS AND FATS FREIGHT INDEX (1Q12=100)

Source: Drewry Maritime Research

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MARKET SUMMARY

Major operators on Intra-Northeast Asia trade routes

Seaborne trade volume within Northeast Asia is the largest among the intra-regional chemical shipping markets, with China being the number one importer of chemical products. The Intra-Northeast Asia chemical seaborne trade grew by 10% in 2015 (Figure 1).

PX seaborne trade volume in the region increased most significantly – by 25% and 2 million tonnes in 2015, compared with 2014.

- The top five operators are Woolim Shipping, Sinochem, Keoyoung Shipping, Nanjing Yangyang and Hana Marine.
- The top five cargoes are PX, styrene, xylenes, MEG and base oil (Figure 2).

About 58% of the vessels operating on Intra-Northeast Asia routes are of 1,000-5,000 dwt (Figure 4), excluding coasters, while 79% of the vessels in the coaster fleet are of 1,000-5,000 dwt (Figure 5). In the small size category, stainless steel tankers far outnumber coated tankers (Figure 6), as cargo sizes are usually as small as 1,000 to 5,000 tonnes in the region.
OUTLOOK

Seaborne trade to grow healthily and freight rates to remain stable in the region

• China still needs to import a large amount of PX from Korea because no new PX project is likely to start operating in the next three years.

• Even though China is facing an economic slowdown, demand to import petrochemical products from neighbouring countries is still growing, with growth accelerating from 6.3% in 2015 from 4.9% in 2014. We expect the seaborne trade in this region to grow healthily.

• Some of the Chinese coasters could switch from the coastal market to the regional market when demand and freight rates are firm. This will keep freight rates stable for the long term in the region.

• The trade between Taiwan and mainland China is very exclusive and mainly serviced by Chinese-flagged vessels with good qualifications. This route is not a highly competitive market and freight rates will remain higher than other Northeast Asia routes if the Chinese government continues with the same policy.

• The Chinese coastal market is highly competitive with more than 100 vessels, including some low-standard vessels, competing with lower rates. However, after the Tianjin port explosion, safety standards have been raised, and therefore we expect the Chinese coastal fleet to decline over the next three years.
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