OCEAN REEFER MARKET UPDATE
TEMPERATURE CONTROLLED BUSINESS

September – October 2023
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Ocean Freight Reefer Market Update – September 2023

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Topic of the Month – September 2023
Refrigerated Cargo, one of the fastest growing commodities

In recent years shipping Reefer Containers has been challenging. During the crisis in particular, it was nearly impossible to get space regardless what you were prepared to pay. Consumers decided to source locally and not be too adventurous demanding new food products. This trend seems to be changing back to pre-Covid times now, benefiting the Reefer Market.

As there is more and more capacity coming these days in the market and also more Reefer Containers are built, we believe that the future of shipping temperature-controlled goods is bright.

There have been around 11 Mio TEU shipped in 2021 and the market expects to grow by an average of 3.5-4.0% every year to 13 Mio TEU in 2026. The growth is actually expected to become stronger year by year, reaching more than 6% from 2025 onwards. Key drivers in the industry are citrus and meat, but we also see big growth from batteries for the Electric Vehicle Market. This trend could change due to near shoring though.

Our team with dedicated Reefer desks in the key countries is further strengthened and expanding to cope with this situation and to ensure best in class service to all our customers.

Source: DHL, Drewry
High level market development – September 2023

ECONOMIC OUTLOOK GDP GROWTH BY REGION

<table>
<thead>
<tr>
<th>Region</th>
<th>2023F</th>
<th>2024F</th>
<th>2025F</th>
<th>2026F</th>
<th>2027F</th>
<th>CAGR (2024-27)</th>
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<tr>
<td>AMER</td>
<td>1.3%</td>
<td>1.2%</td>
<td>1.8%</td>
<td>2.1%</td>
<td>2.0%</td>
<td>2.0%</td>
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<tr>
<td>ASPA</td>
<td>4.3%</td>
<td>4.5%</td>
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<td>4.3%</td>
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<tr>
<td>EURO</td>
<td>0.7%</td>
<td>1.4%</td>
<td>1.9%</td>
<td>1.8%</td>
<td>1.7%</td>
<td>1.8%</td>
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<tr>
<td>MEA</td>
<td>2.8%</td>
<td>3.3%</td>
<td>3.6%</td>
<td>3.1%</td>
<td>3.2%</td>
<td>3.3%</td>
</tr>
<tr>
<td>DGF World</td>
<td>2.3%</td>
<td>2.6%</td>
<td>2.9%</td>
<td>2.9%</td>
<td>2.8%</td>
<td>2.9%</td>
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</table>

WORLD CONTAINER INDEX (WCI)

INFLATION, YOY in %

DREWRY GLOBAL REEFER CONTAINER FREIGHT RATE INDEX

BUNKER PRICES

1) Real GDP, Copyright © IHS Markit, now part of S&P Global, Q2 2023 Update 1 June ‘23. All rights reserved; 2) IHS Markit, now part of S&P Global, Q2 2023 Update 1 June ‘23. All rights reserved; 3 & 4) Surcharges related to e.g., equipment & space availability are not reflected in WCI & SCFI; 3) Drewry, in USD/40ft container, including BAF & THC both ends, 8 individual routes, excluding intra-Asia routes; 4) Shanghai Shipping Exchange, in USD/20ft ctrn & USD/40ft ctrn for US routes, including BAF, BEBAF, CAF, PSS, WRS, PCS & SCF/SCF/PTF/PCC, excl. THC, 15 routes from Shanghai; 5) Source: DHL, in US$ 6) Drewry Reefer Rate Index Q2 2023.
### Major trades – Market outlook September 2023 vs last update (1/2)

#### EUROPE

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<thead>
<tr>
<th>Import region</th>
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<tr>
<td>AMNO</td>
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<td>+/-</td>
</tr>
<tr>
<td>AMLA &amp; MX</td>
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<td>-</td>
</tr>
<tr>
<td>ASPA</td>
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<td>+/-</td>
</tr>
<tr>
<td>MENAT</td>
<td>=</td>
<td>+/-</td>
</tr>
<tr>
<td>SSA</td>
<td>=</td>
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#### ASIA PACIFIC

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<td>AMLA</td>
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<td>++ EC / - WC</td>
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#### NORTH AMERICA

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<tr>
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#### LATIN AMERICA

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<td>= +/-</td>
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**KEY**

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<tr>
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<th>Moderate Increase</th>
<th>No Change</th>
<th>Moderate Decline</th>
<th>Strong Decline</th>
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## Major trades – Market outlook September 2023 vs last update (2/2)

### TURKEY

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<td>AMLA &amp; MX</td>
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<tr>
<td>MENAT</td>
<td>=</td>
<td>--</td>
</tr>
<tr>
<td>SSA</td>
<td>-</td>
<td>+</td>
</tr>
</tbody>
</table>

### MEA EAST MED & NORTHWEST AFRICA

<table>
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<tr>
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<th>Capacity</th>
<th>Rate</th>
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<tbody>
<tr>
<td>AMNO</td>
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<tr>
<td>AMLA &amp; MX</td>
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<td>MENAT</td>
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<td>+</td>
</tr>
<tr>
<td>SSA</td>
<td>--</td>
<td>+</td>
</tr>
</tbody>
</table>

Source: DHL

**KEY**

- **Strong Increase** ++
- **Moderate Increase** +
- **No Change** =
- **Moderate Decline** –
- **Strong Decline** --
Capacity 1/2

MSC and ZIM are again the fastest growing carriers

- **MSC and ZIM**, the two top-10 carriers that showed the most growth in 2022, have again this year added the most extra slots to their fleets. In the first half this year, **MSC** has once again outperformed all other top-10 carriers by increasing its nominal fleet capacity by another 560,200 TEU (+12.2%). **Percentagewise**, only **ZIM grew faster** (+13.3%), in an increasing challenging and difficult market for the liner operators.

- By comparison, the **total cellular fleet** has witnessed growth of just **3.5%** in the first six months of this year.

- The latest top 10 chart still shows the same rankings as at the beginning of the year, but the **fleet evolution of the individual carriers** is clearly **very different**.

- After reducing fleet capacity in 2022 by **1.4%**, **Maersk** continued to sell ships of end charters in the first half of 2023, reducing its **capacity again by 2.1%**.

- **CMA CGM**, currently the global number three with a fleet of 625 vessels and 3.49 mTEU, appears to be on track to overtake Maersk and **ascend to the number two position** in the not-too-distance future. In recent years, the Marseille-based shipping line has been very aggressive when it comes to placing newbuilding orders and it has amassed a vessel pipe-line of at least 122 ships and 1.24 mTEU. Capacity-wise CMA CGM’s orderbook is now the second largest after that of MSC. As per mid July, the French Line’s orderbook stands at 35.5% of the carrier’s existing fleet capacity.

Source: Alphaliner, Dynaliners, Carriers

DHL Global Forwarding | Ocean Reefer Market Update | September 2023
Capacity 2/2

In June and July **10.8% of all regular sailings** out of the 25 **Central China – Europe loops** offered by the three big alliances were **voided**. The three main alliances have blanked 24 sailings in June and July on 25 Central China to Europe loops. 16 voyages to North Europe and 8 to the Med. THE Alliance has skipped the highest percentage of scheduled sailings. Slowing cargo demand is preventing MSC from launching a weekly standalone Asia – Baltic ‘Swan’ loop. Limiting capacity is expected to remove some pressure on spot freight rates.

**COSCO SHIPPING Lines**, its sister company OOCL, and ONE will launch a new weekly liner service connecting Europe with the East Coast of South America. The first sailing will be offered on 16 September from Montevideo with the COSCO-operated 4,051 TEU “XIN TAN TONG”. The service is expected to turn in eight weeks with a fleet of 4,000 – 5,000 TEU panamax ships. COSCO will brand the new loop “ESE2”, while OOCL and ONE will market the connection as the ‘EEX’ and ‘LUX’.

Carriers

Majority investors of **HMM** finally launched a formal sale **process for the privatization** of the Korean shipping. Investors had until 21 August to submit their bids to buy a near-41% stake. Potential bidders included Hyundai Motor Group, LX Group, Samsung SDS, CJ Group, POSCO and Harim Group, as well as SM Group, owners of container carrier SM Line. Also Hapag-Lloyd, is reported to have made a bid for a controlling stake in South Korea carrier HMM as part of the company’s privatization process, according to local media reports. However, local commentators have cast doubt on whether a foreign bid could be accepted, given the subsidies advanced to HMM in the past and its strategic role as a carrier for smaller Korean Exporters. HMM is South Korea’s only remaining global container line.

Source: Alphaliner, Dynaliners, Carriers
Market Update, September 2023 – Europe Exports by Trade

To North America

Rates to USA already at a level far below pre-covid. They dropped significantly since Jan. 2023. For Canada and Mexico rate-development is more or less similar but levels slightly higher. Space is not of any issue and also schedule-reliability improved to a good level again. Some carriers started some blank sailings which so far have only minor impact due to heavy overcapacity.

To South America

South America is close to pre-covid-levels as market dropped the last weeks and months. New service into AMLA-East Coast will also support to get back to normal market-level. South-America is a demand-area and carrier’s continue to appreciate any reefer-business into this region. Also here schedule-reliable improved and neither space nor plug or EQ-availability is an issue.

To Asia Pacific

Market has reached all time low levels as it has been driven down by some carriers who mainly have the trade with Asia to use their reefers as well as due to the fact that there is a heavy over-capacity in this trade. Asia remains heavily “overstocked” on reefer-equipment so the carriers will hide this trade as soon as they can. So far they can’t! Oceania follows this trend also because Asia to Australia vessels also not fully booked. Direct carriers try to turn around this development.

Equipment situation in Europe (North and South) is remaining on “okay to good” levels.

Sufficient equipment is available and no issues to be expected in the coming months. However, we still recommend to keep the proper (pre)booking flow etc. in place as reefers demand some more pre-notice than any dry.

Space situation OK in nearly all Export-Trades!

Space-issues are gone in all trades which is bringing back preformation for Reefers into demand-areas. Equipment and plugs on board are important factors but these days not an issue in any trade. The importance of forecasting becomes less important but is strongly recommended!

Source: DHL, Shipping Lines
Market Update, September 2023 – Middle East and Africa Exports by Trade

**From East Africa**

The main destinations are Europe, the Middle East, and North America.

Market rates are currently stable for Reefers with a longer validity period.

Bookings must be placed at least 7 – 10 days before sailing to obtain space.

**From MEA East Med/ Northwest Africa**

The main destinations are Europe, the Middle East, and North America.

We expect a moderate increase in the Morocco reefer market, especially in EU and rate reducing for export to EU & AMNO.

Market rates in Egypt are reducing, and carriers are open to accepting reefer containers to Gulf countries, Australia, Canada Europe & US.

Bookings need to be placed at least 7 - 10 days before sailing to obtain space.

**From Southern Africa**

The main destinations are Europe and Asia, with UAE growing at a rapid rate, and the USA is a very big Bulk market for South Africa. Southern Africa’s volumes are also growing for exports to UAE, with Maputo Port looking like a good alternative to export from.

Reefer equipment is stable at the moment, as they have increased reefer availability due to it being citrus season.

Bookings still need to be placed well in advance.

Reefer rates appear to be coming down, citrus season volumes are also down due to heavy rain so far.

**From Turkey**

Europe, the Middle East, North America, and Russia are the main destinations.

We have enough space from Turkey to the Middle East and US East Coast ports.

Citrus season will start in mid of September.

Source: DHL, Shipping Lines
# Market Update, September 2023 – North America Exports by Trade

## To Europe
- Market rates remain stable with available plug capacity from North America to North and South Europe.
- Large Reefer Export volume is creating a deficit of 40’ Reefer equipment in Norfolk, VA, Oakland, CA, Seattle, WA and Vancouver, BC.
- Port congestion continues to improve in New York, Norfolk, Los Angeles, Oakland and Savannah.
- Vancouver port entered a strike 1\textsuperscript{st} July 2023.
- Reefer Trucking Capacity in USA continues to improve but lead times of 14+ days is suggested to obtain capacity/service.
- Lack of chassis and GENSET in USA, we need to ask and make reservation also at origin to ensure GENSET will be provided at POD.

Source: DHL and Shipping Lines

DHL Global Forwarding | Ocean Reefer Market Update | September 2023

## To Asia Pacific
- Market rates continue to stay high to cover empty positioning cost of empty RF’s from Asia.
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- Port congestion continues to improve in New York, Norfolk, Los Angeles, Oakland and Savannah.
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## To South America
- Market rates remain stable with available plug capacity to South America.
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- Port congestion continues to improve in New York, Norfolk, Los Angeles, Oakland and Savannah.
- Vancouver port entered a strike 1\textsuperscript{st} July 2023.
- Reefer Trucking Capacity in USA continues to improve but lead times of 14+ days is suggested to obtain capacity/service.
- Lack of chassis and GENSET in USA, we need to ask and make reservation also at origin to ensure GENSET will be provided at POD.
- Shipping Lines promoting NOR especially from USA East Coast ports to South America East and West Coast ports.

Source: DHL and Shipping Lines

DHL Global Forwarding | Ocean Reefer Market Update | September 2023
Market Update, September 2023 – South America Exports by Trade

To Europe

Market rates remain stable with available plug capacity to Europe.

Argentina, Brazil, Chile, Mexico, and Peru are progressively recovering inventories of 40’ Reefer.

Request a lead time of 15 days before sailing to obtain space and equipment, especially from all WCSA ports.

Port congestion tends to be overcome in Colombia, Panama, and Peru.

It is important to focus on developing the necessary for Live Reefer cargo from Europe into Buenos Aires and Santos.

To Asia Pacific

Market rates are stable after an increase to cover the empty positioning costs of Reefers from Asia to Latin America.

Slight concerns with a supply of empty 40’ Reefer equipment positioning into LATAM, especially to East Coast South America.

Market Reefer volumes remain strong with strong exports, especially to China.

Request a lead time of 15 days before sailing to obtain space and equipment, especially from all WCSA ports.

It is important to focus on developing the necessary NOR from NOR from Asia into Buenos Aires and Santos.

To North & South America

Market rates are trending to get stable after increases due lack of Reefer equipment in Latin America. Most services show that available plugs are fully maximized.

Request a lead time of 30 days before sailing to obtain space and equipment, especially from WCSA ports.

It is important to focus on developing the necessary NOR from New York to Buenos Aires and Santos.

Continue to review and develop the USA – Mexico cross-border market due to the lack of truck capacity in Mexico and the USA.

Source: DHL and Shipping Lines
Carriers announcing new blank sailings to even out supply and demand to Europe.

- Rates into IN/PK/LK are exhibiting an upward trend. This upward trajectory is expected to persist until the end of Q3.
- GOLD STAR LINE has decided to implement another round of GRI general rate increase for all kinds of goods on the China – Indonesia. General Rate Increase (GRI): + USD50/TEU effective from 15th September 2023 (B/L date) all China ports to Indonesia ports.
- To Oceania – carriers are still pushing for rate restoration for this sector and imposing RR of USD 100/TEU for all shipments from S.E Asia to AU/NZ main ports and RR of USD 150/TEU from N.E Asia to AU/NZ from 15 Sept 23

To TPEB – carriers are pushing for GRI to both USEC and USWC. Rates have increased significantly although space ex Asia are still manageable.
Market Update, September 2023 – Overview Reefer Equipment

Source: DHL, Shipping Lines, Drewry

Europe:
Surplus
+10%, +150,000 TEU

South Africa:
Shortage
-90%, -200,000 TEU

Asia:
Surplus
+75%, +2,000,000 TEU

Oceania:
Shortage
-70%, -300,000 TEU

North America:
Balanced

South America:
Shortage
-75%, -1,000,000 TEU

North America:
Balanced

South America:
Shortage
-75%, -1,000,000 TEU

South Africa:
Shortage
-90%, -200,000 TEU
First drop in reliability this year

- In June global schedule reliability has decreased by -2.5 ptp to 64.3%. This is the first decrease this year and the first decrease in the last 8 months.
- The South America-North Europe trade was the best performing trade in June with a reliability of 91%. On the other end of the list ranked the Asia-North America East Coast trade with a 41.4% reliability, directly followed by Asia-North America West Coast with 46.4%.
- Asia to North Europe registered a further improvement of 2.6 ptp MoM to 70.4% and Asia to the Mediterranean a small improvement of 0.7 ptp to 55.1% reliability.
- On the Transatlantic Eastbound reliability increased to 71.9% and to 69.2% on the Westbound trade.

Source: Sea Intelligence, DHL
DID YOU KNOW?

SHIPPING DECARBONIZATION
The International Maritime Organization (IMO) adopted a stricter strategy to reduce greenhouse gas (GHG) emissions by international shipping but fell short of adopting the higher limits demanded by some campaigners. The Organization's Marine Environment Protection Committee (MEPC 80) committed to reduce CO2 emissions per transport work by at least 40% by 2030, compared to 2008. It also resolved to cut total emissions from shipping by 20-30% by 2030 and 70-80% by 2040. IMO said shipping would reach a net zero ‘close to’ 2050. Critics had called for a 50% cut in CO2 emissions by 2030 and a firm pledge to be net zero by 2050 at the latest. The World Shipping Council (WSC) said importantly the updated GHG strategy set a clear timeline for the development of the lifecycle-based global standard and economic instrument, to be agreed by 2025 and ready for implementation in 2027. However, the non-profit International Council on Clean Transportation (ICCT) stated it believed shipping would still exceed its 1.5C carbon budget by approximately 2032 under the agreement.

Biofuels need massive growth to meet shipping needs

A white paper recently issued by classification society DNV estimated that biofuels, in the form of methane, methanol or biofuel oils, accounted for just 0.1% of marine fuel consumption in 2022. The study suggests that 250 million-ton equivalents (mtoe) of biofuel would be needed by shipping each year come 2050, if this were to be the primary decarbonization method. This is an increase of 250,000%. However, global production of biofuels is currently only 11 mtoe, for which shipping must compete against other industries. Shipping traditionally accounts for around 3% of global energy demand.

In the meantime, biofuel oils are proving popular, especially with shippers. As an example, Hapag-Lloyd and DHL Forwarding signed an agreement in 2022, which in the initial stages, will see the German carrier use advanced biofuels to ship 18,000 TEU of cargoes for DHL Forwarding.

Another considered possible alternative fuel is Ammonia. Despite there is no working marine engine running on it, there are a number of vessels being ordered as “ammonia ready”. Whilst acknowledging the technical and engineering challenges facing ammonia. The Maritime and Port Authority of Singapore is hopeful that it could undertake its first ammonia bunkering operations as soon as 2026. Year Clean Ammonia and Bunker Holding have signed an agreement that will see them work together to develop and supply clean ammonia as bunker fuel.

In contrast oil major Shell stated it will not progress further on the ammonia pathway over concerns regarding toxicity and will concentrate on other alternatives as LNG and methanol there are also actions being taken to pursue this alternative further.

Source: Alphaliner, DynaLiners
THANK YOU!
STAY INFORMED!

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