

# TPM<sup>24</sup>

by S&P Global

## TPM Academy Navigating the Cold Chain

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## OUR TEAM

**600+**

TEAM  
MEMEBERS

**40**

NATIONALITIES

**36**

LANGUAGES

**50+**

LOCATIONS  
ACROSS 5  
CONTINENTS

**1.8M**

METRIC TONS  
ANNUALLY

**49K**

REFRIGERATED  
CONTAINERS  
ANNUALLY



\*Based on AJC Group - FY 2022

**WORLD CONGRESS 2024**





## OUR LOGISTICS COMPANIES



Logistics expertise moving freight across America and around the world



The right partner to move cargo between the U.S., other global origins to Puerto Rico



Experts in full and partial dry shipments to Alaska, Hawaii, and Guam

## OUR VOLUME GROWTH

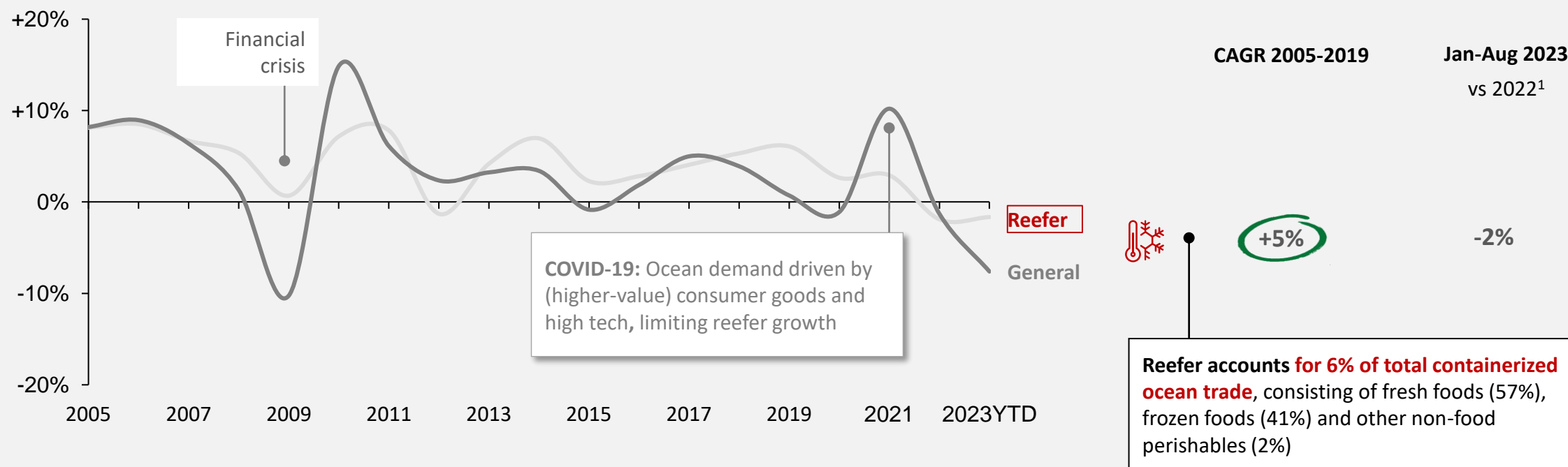


Together, we deliver life's essentials.

## Reefer trades are trending below historical growth rates

### Annual growth of containerized ocean trade, 2005-2023YTD<sup>1</sup>

Year-over-year TEU change (%)

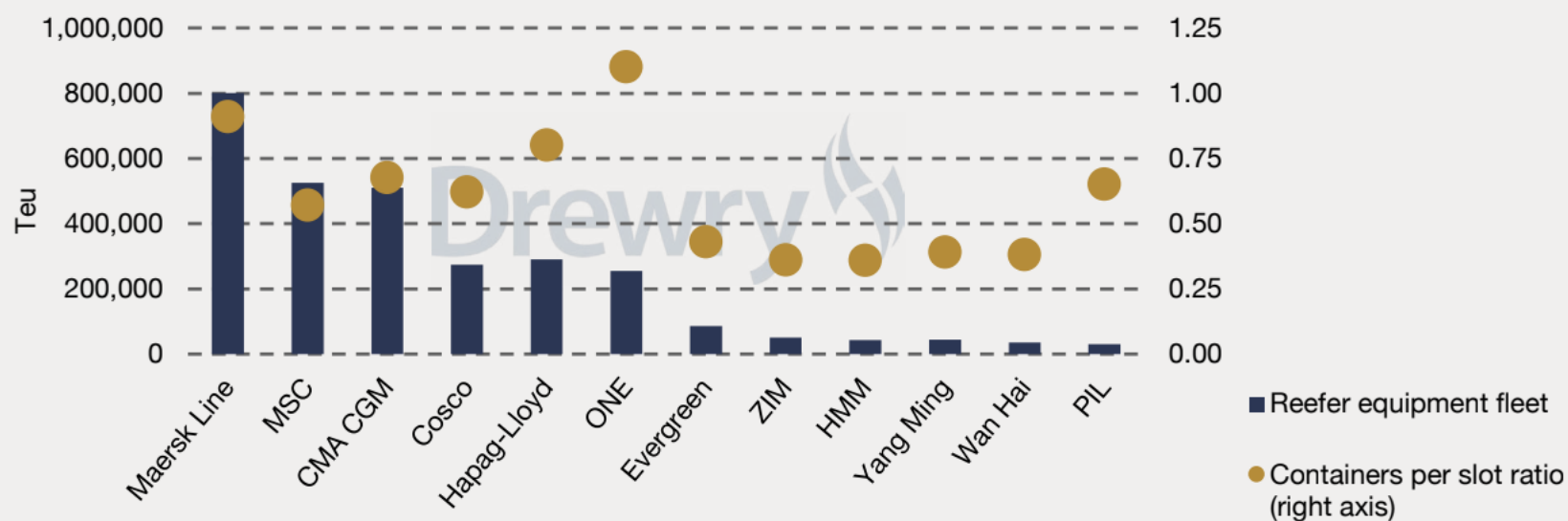


**Projected Growth: 2024 2.4%, 2025: 3.5% 2026: 3.1%**

- Note: Container ocean trade only; Reefer container trade described as "Temperature or Climate Control" in Accenture Cargo databases; 1) Includes Jan-Aug data, compared against Jan-Aug 2022
- Source: Accenture Cargo Global Ocean Trade Database; Accenture Cargo and Eskesen Advisory analysis (November 2023)

## The Global Reefer market is highly concentrated top 6 dominates with high barriers to entry

Figure 5.3 Operating container equipment fleet estimates for leading container carriers, June 2023



Source: Drewry Maritime Research

## Refrigerated Commodities

- **Frozen**
  - Proteins, Fruit/Vegetables, Confectionary, Packaged goods
- **Chilled**
  - Pharmaceutical, Fruits, Dairy, Vegetables, Nuts, Meats
- **Temperature Controlled**
  - Temperature sensitive raw material (Seasonal)

## Components of Refrigerated Cold Chain:

- **Product Preparation Variables**
  - Slaughter, Harvest, Processing, Packaging, Chilling, Blast Freezing
- **Warehousing Capacity**
  - 1:100 ratio refrigerated to Dry facilities
- **Equipment Requirements**
  - Reefer container, Pre-tripping, Chassis, Gen-set, Landside plugs
- **Government Approval & Certificates**
  - USDA Health Certificates, FDA, Certificate of Origin, Fito Sanitary, etc
- **Port Operation & Vessel reliability**
  - Vessel Schedules (ERD), Plug ins, on dock charges



## Beneficial Cargo Owners: Challenges & Opportunities

- Geopolitical Risks: “Casino Royal”
  - Embargo’s, tariff’s, customers duties
- Animal & Plant Health Disease
  - AI (Avian Influenza), ASF (African Swine Flu), Foot & Mouth Disease, Plant canker/infestation
- Production interruption
  - Labor, Weather, Natural Disasters, Pandemics
- Unpredictable supply chain Cost
  - Government approval: USDA & FDA
  - Plug in electricity fee’s, Detention/Demurrage, On dock charges, Rail ramp charges
- Companies that anticipate challenges and build resilient Cold Chains can better manage costs

## Cold Storage & Sustainability

- 78% of USA Cold Storage Warehouse is 20 years old.....
- Capacity expansion in USA is move forward aggressively
- 1:100 Ratio refrigerated to dry facility
- Industry leaders are driving the conversion quicker
- Carriers driving the global green fuel initiative that will be passed to the consumer

## Technology & Visibility

- Equipment manufacturers and technology companies are rapidly expanding capabilities
  - Real Time Visibility
  - Efficient technology
- Real time visibility available through most large ocean reefer carriers
  - Visibility through the ocean carrier platforms
  - Manage liability
- Visibility throughout the Cold Chain is still fragmented
  - Cold Storage, Truck, Ports, Ocean Vessel