Air & Ocean Market

Understand current market dynamics and explore solutions to mitigate volatilities

DHL Life Sciences & Healthcare Forum, May 19-20, Boston

DHL Health Logistics

WE CARE

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Understand current market dynamics and explore solutions to mitigate volatilities

Silvia Macieira

VP Global Product Sector Head LSH, DHL Group

Nino Yepez

Head of Reefer & Bulk Solutions NORAM, DHL Group

Air Market Update

DHL Life Sciences & Healthcare Forum, May 19-20, Boston

Health Logistics

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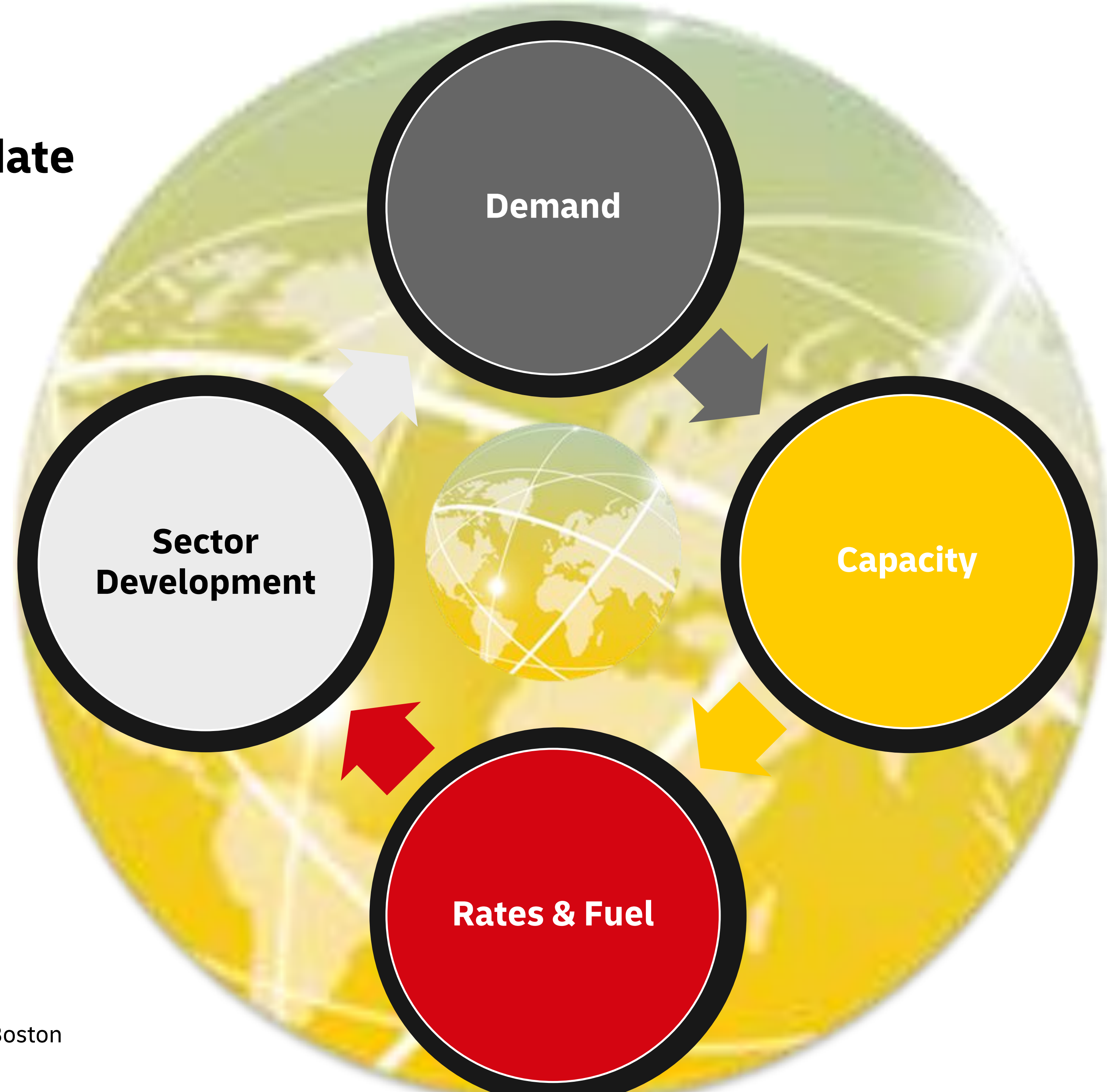
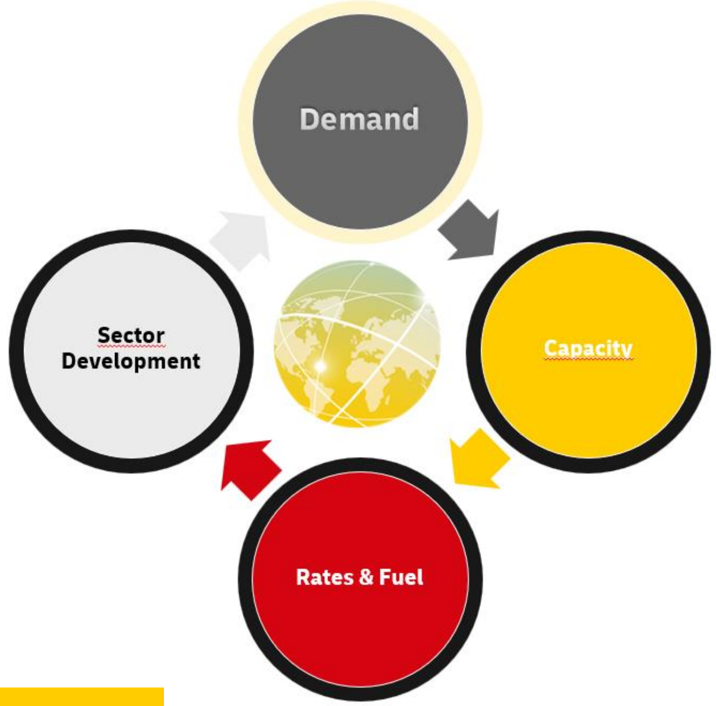
Air Market Update

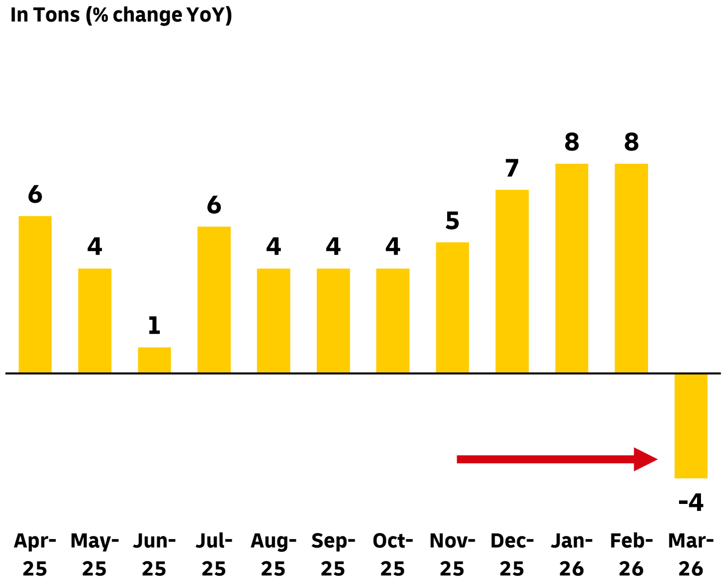


Air Market Update - Demand

- **Global air cargo volumes fell by 4% YoY Mar 26** for the first time in the last 2 years, as major disruptions at key transit hubs (Gulf Hubs) began to slow the flow of goods worldwide.
- Export volumes out of Gulf countries collapsed; the export volume plummeted by 46% YoY Mar 26, with majority of the drop reported from UAE.
- Global energy disruptions are accelerating demand for clean-tech trade, with China's exports of clean tech exporters of solar, batteries, EVs hitting record levels, as market looks for alternatives to oil and gas.
- Asian outbound trade continues to boom. Intra-Asia alone by 7% YOY Mar 26, as the region continues to dominate tech and consumer goods.

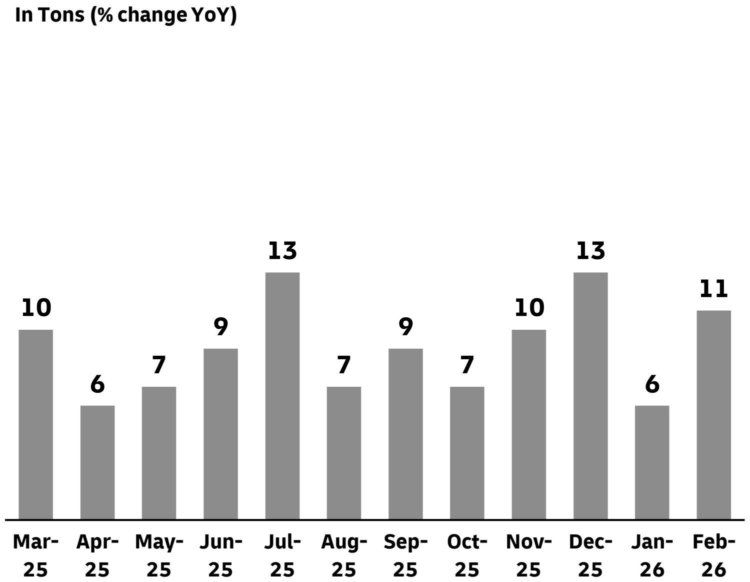


Global Air Traffic[1]



Source: WorldACD

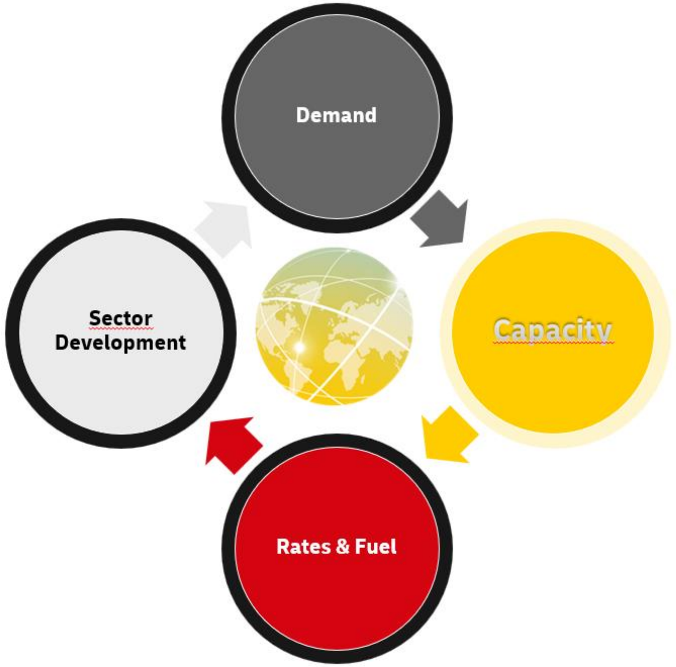
Global Air Trade[2]



Source: Accenture Cargo

Air Market Update - CAPACITY

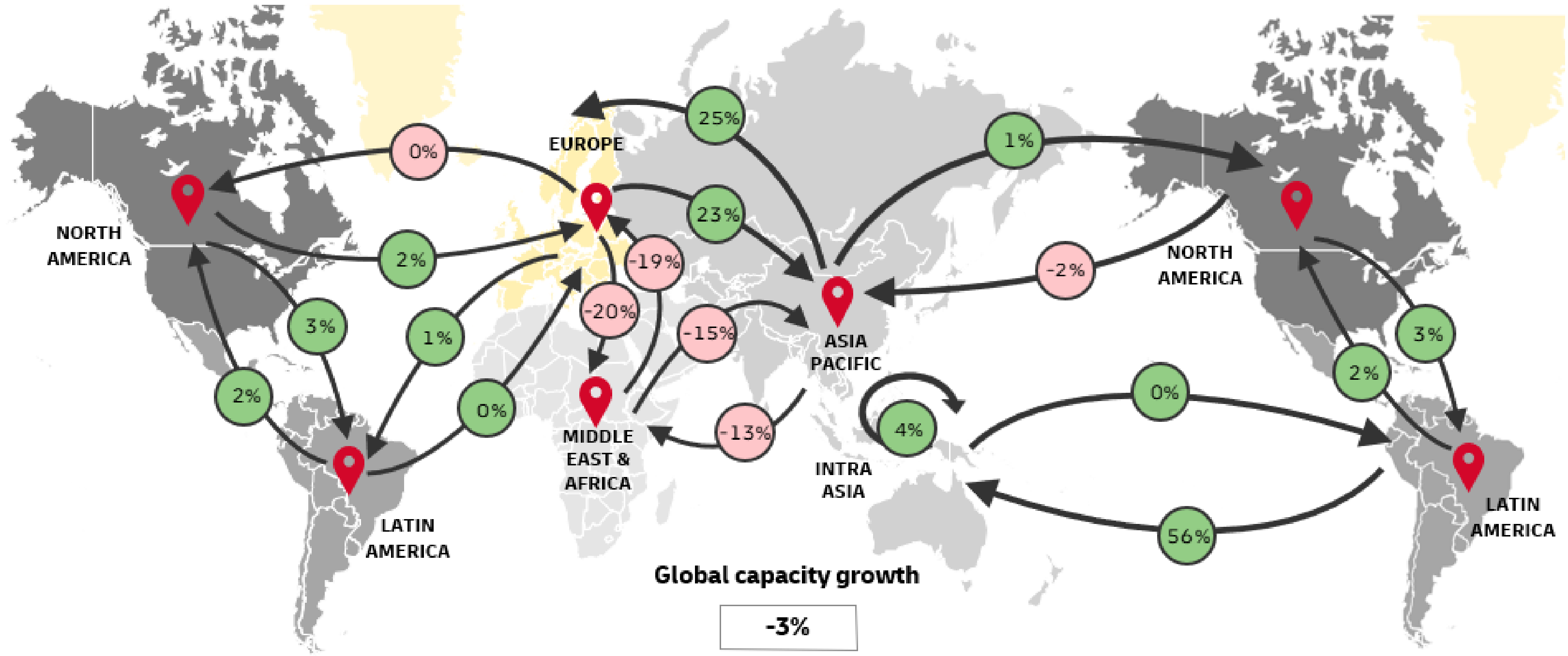
- **Global air cargo capacity declined 3% YoY MTD** 27th Apr 26, with Gulf as the epicenter, recording a sharp 39% drop in the region versus same period last year
- Asia-Europe corridor overall seeing a 25% capacity surge, as airlines are adapting by shifting to direct long-haul routes and using Central Asia technical stops as alternatives to disrupted Gulf hubs



Tracking Capacity

International Air Cargo Capacity (in tons)

YoY MTD % Growth – 27th Apr 2026

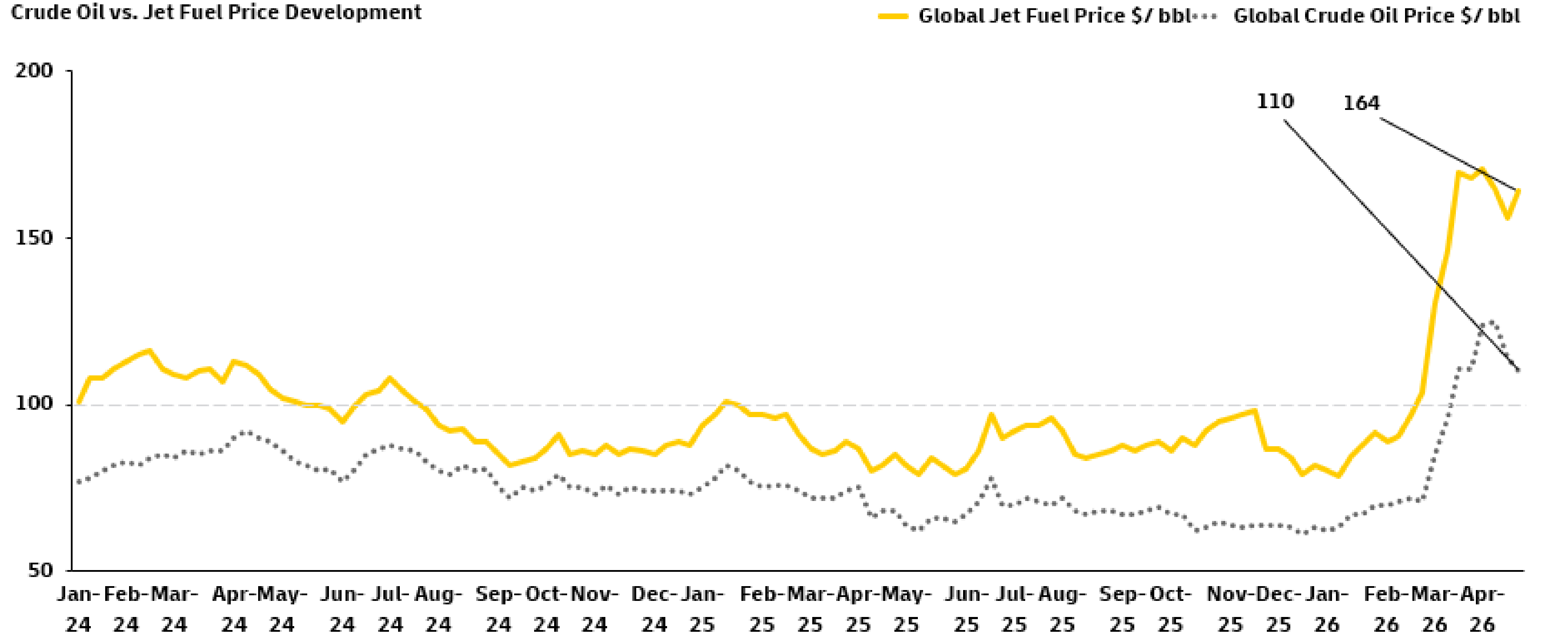


Source: Accenture Cargo; excl. domestic flights;

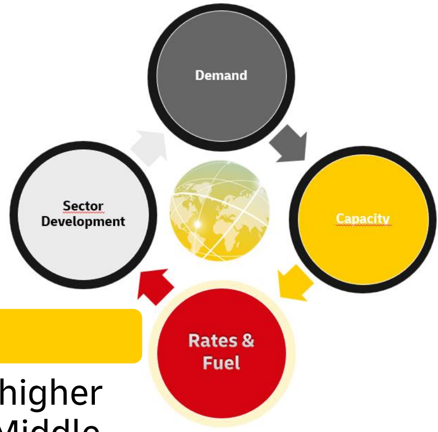
Air Market Update – Fuel Development

- Brent crude spot price averaged $103 per barrel (b) in March, and expect to peak in Q2’26 at $115/b
- Jet fuel prices remain extremely elevated in late April 2026, although prices have eased slightly from the record highs seen earlier this month
- Emerging fuel shortages and high costs are expected to drive flight and route cancellations, as airlines adopt more conservative capacity strategies, cutting frequencies and withdrawing capacity from lower yield lanes to protect margins (PAX capacity more affected)

Jet Fuel Price Development

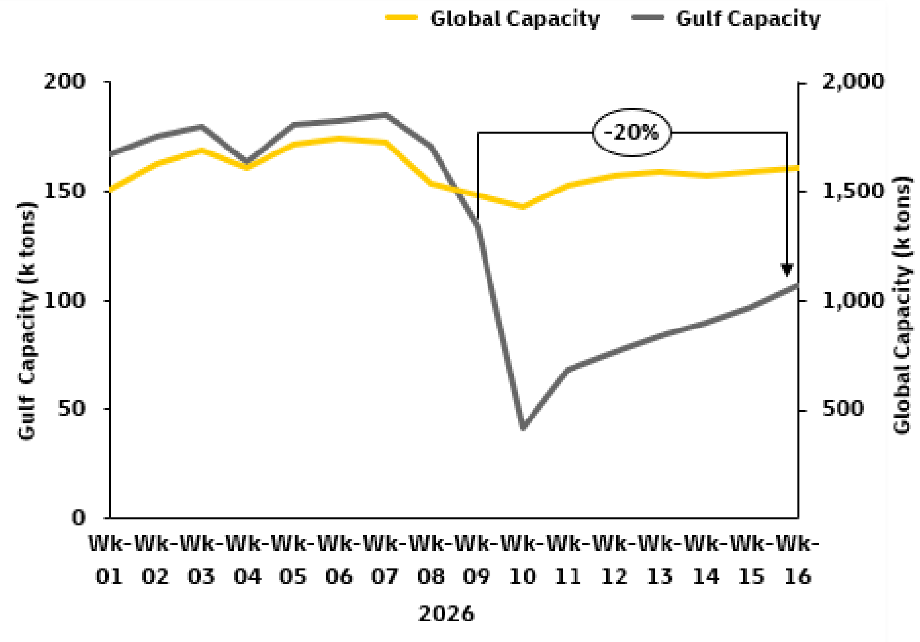


Air Market Update – Rate Development



Global vs Gulf[1] Capacity

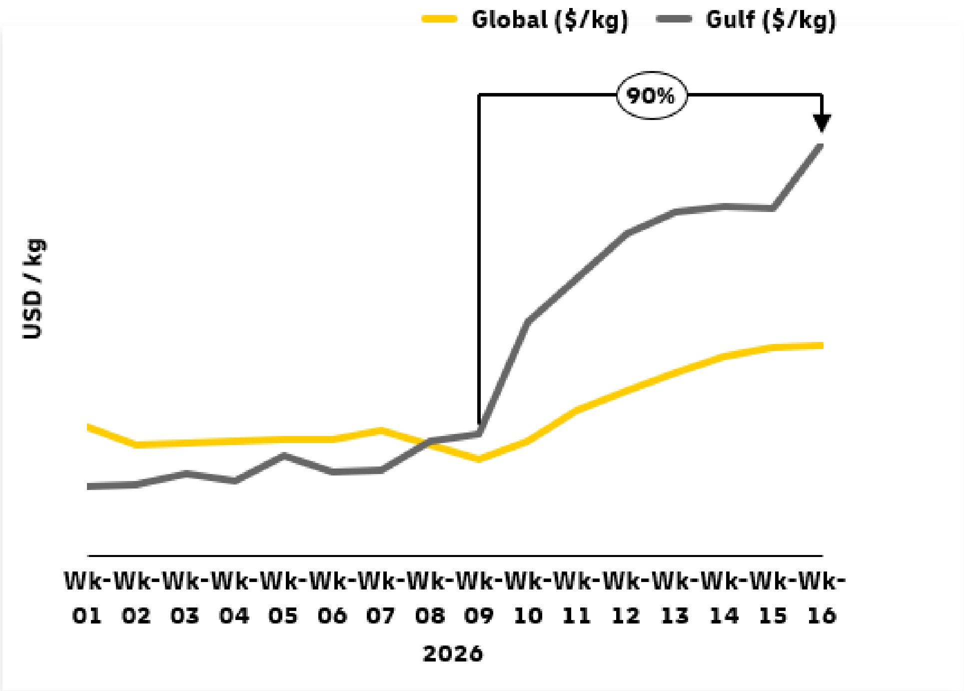
Air cargo capacity recovering partially as UAE airspace reopens and hubs like Dubai resume operations, but the rebound is slow, long-haul Europe/US capacity lags, overall capacity still below pre-conflict levels



Source: Accenture Cargo (Capacity Tracking); 1. Gulf : United Arab Emirates, Qatar, Saudi Arabia, Bahrain, Kuwait, Oman, Iraq, Iran, Yemen;

Global vs Gulf Rate Development

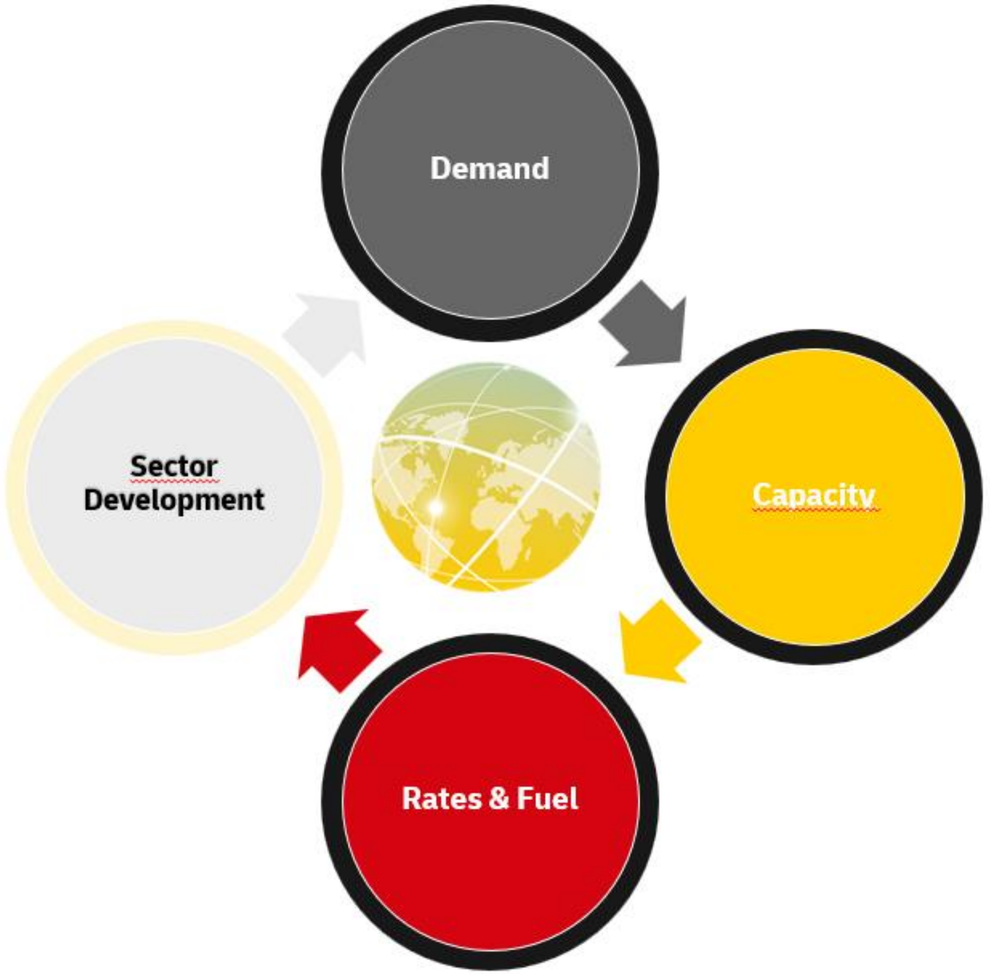
Air cargo rates remain elevated globally (~$3–$4/kg, higher on key lanes) with strong upward pressure driven by Middle East capacity disruptions, rising fuel costs, and a shift toward spot market buying



Air Market Update – Sectors' Development

- **<u>Demand for e-commerce</u>** softening, particularly China to US/EU, as weaker consumer demand and tighter *de minimis enforcement* reduce low value parcel volumes.
- **<u>Demand for semiconductors</u>**, AI chips, and advanced computing hardware has created a non-cyclical demand floor for air freight – connected to the data centers' explosion, as high value components are almost exclusively transported **by air**.

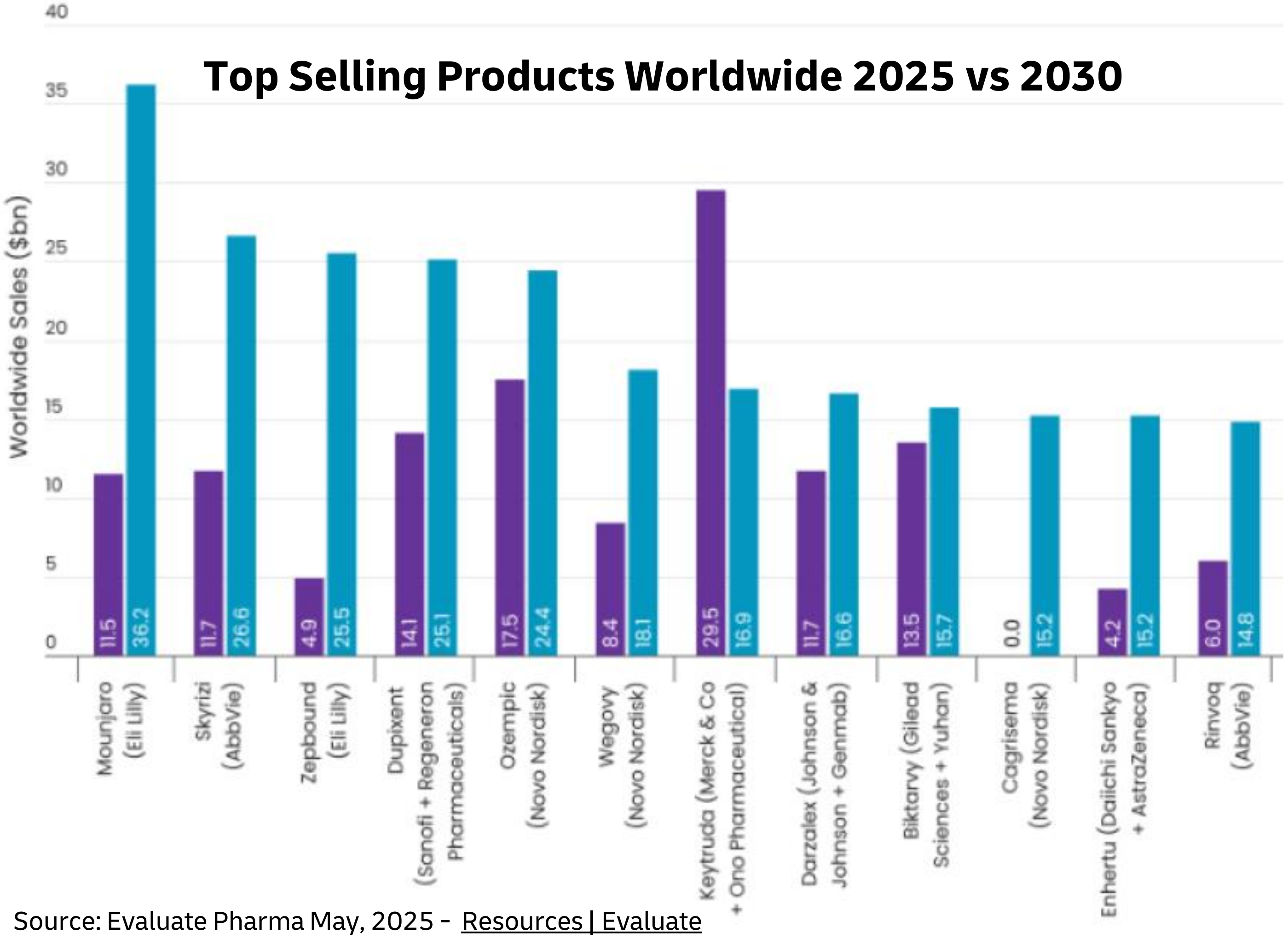
- **Pharmaceutical, biotech and temperature sensitive** healthcare cargo continue to provide *stable premium demand for air freight*, supported by growing global healthcare trade and resilient cold chain logistics requirements.
    - Patent Cliff – ~200 drugs expected to loose patent between 2025-2030 – including 40 blockbusters. Customers will have the ability to reach many more patients in the future. But shifts in profitability, trade lanes, CMO output and generics' entrance are expected to adapt supply chains across the world.

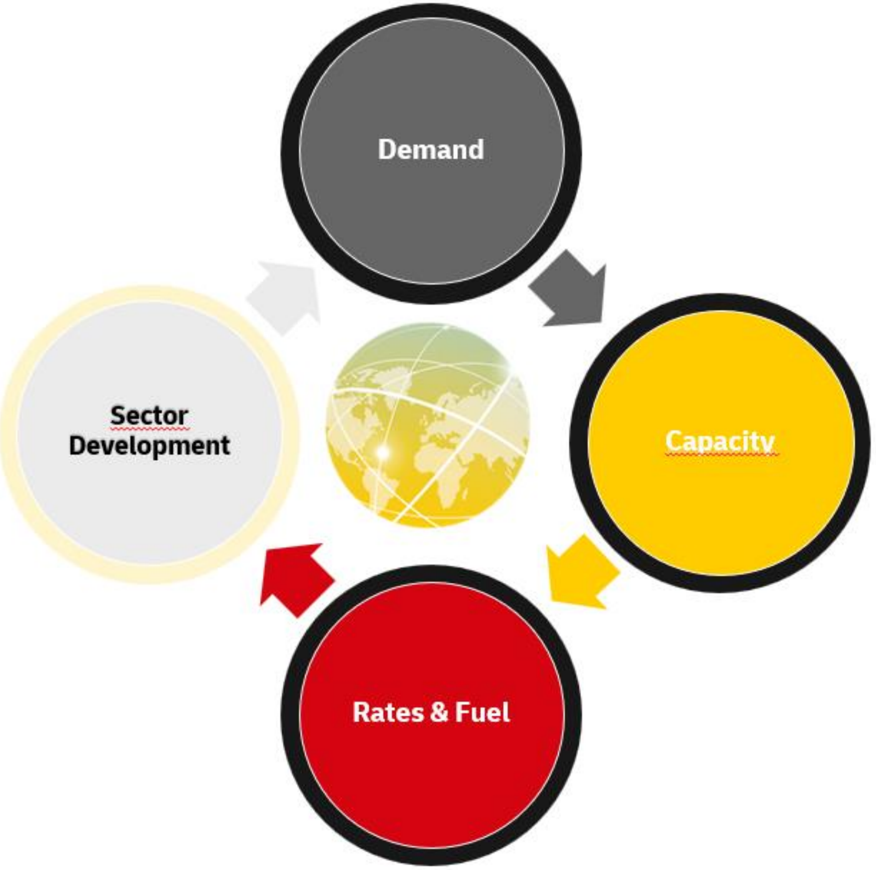


Sector Volumes		2025*	2026#	2027#	2028#	2029#	CAGR (2025-2029)
LSHC	Medical Devices	754.379	775.865	796.822	820.056	843.851	2,8%
	Pharmaceuticals	685.879	717.690	734.294	760.832	791.022	3,6%
LSHC Total		1.440.257	1.493.555	1.531.116	1.580.889	1.634.874	3,2%
All Other Sectors		24.067.153	24.000.761	24.769.172	25.520.995	26.320.687	2,3%
Total Volumes		25.507.411	25.494.316	26.300.288	27.101.884	27.955.561	2,3%

Source: Accenture Cargo
* Yearly actual volume in ton
# Full Year Forecasted Volumes – Next update June 2026

Air Market Update – LSH Sector' Development

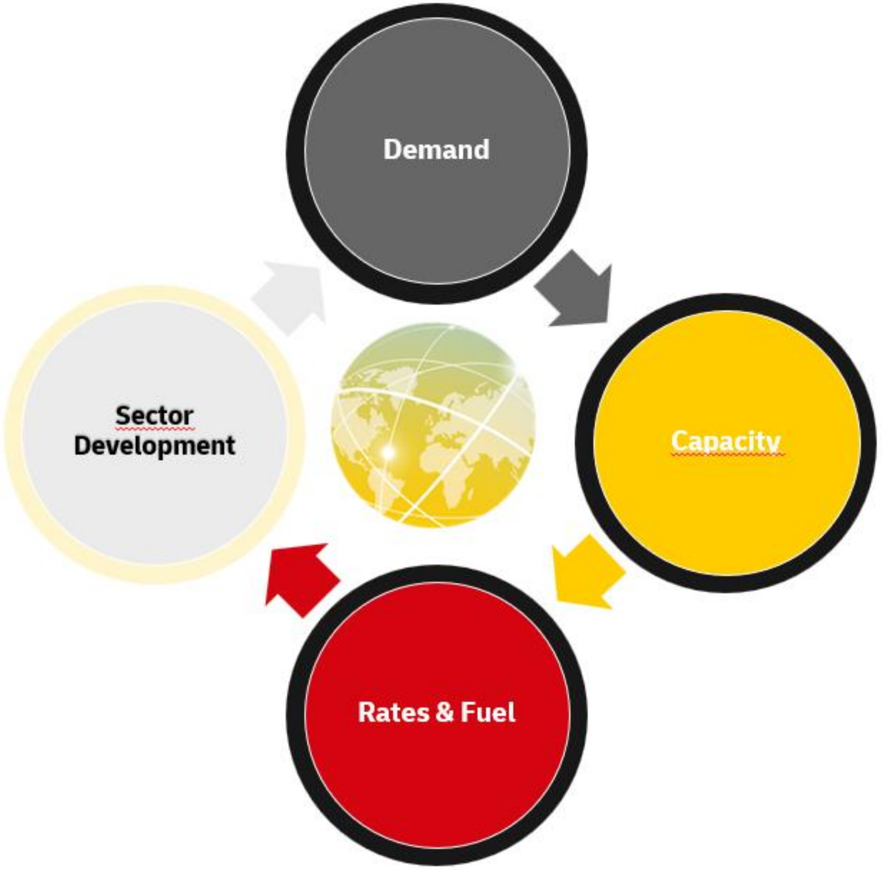




Our goal: follow trends, pursuit volumes to keep growing – but match the needs of our customers towards our infrastructure investments and development projects.

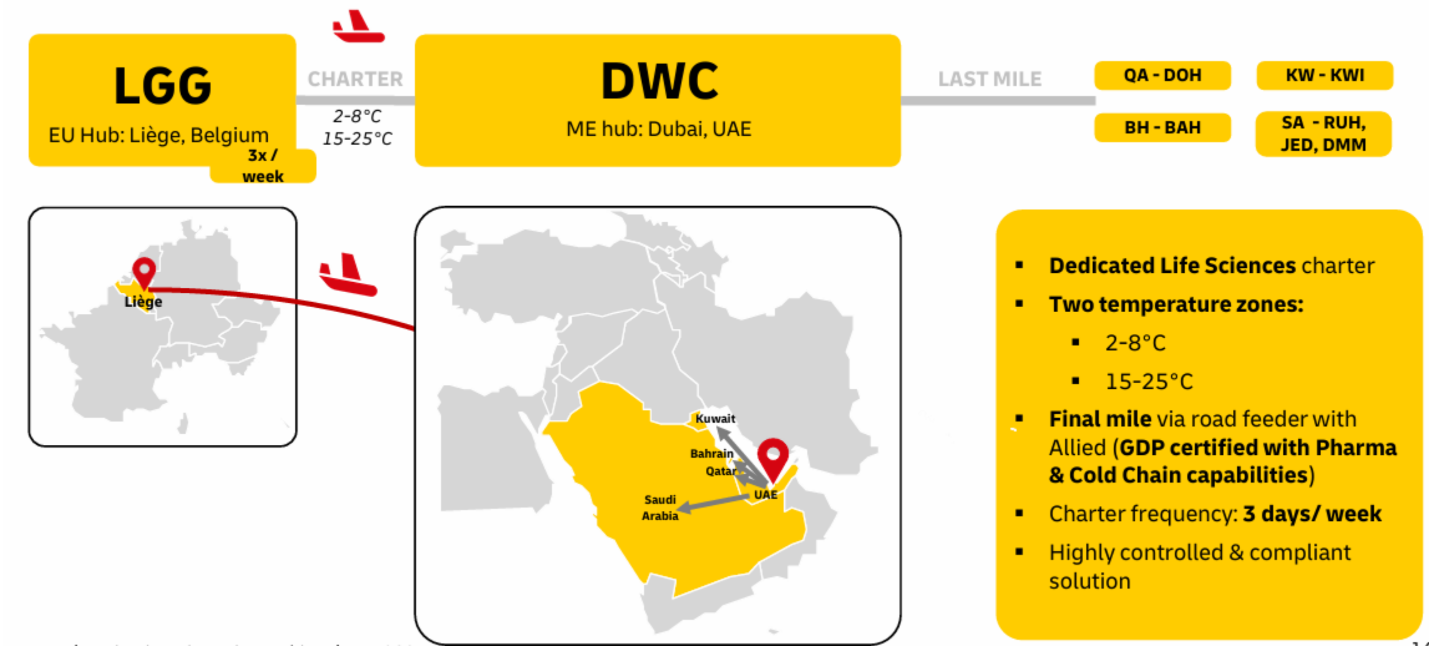
- Source: Evaluate Pharma May, 2025 - Resources | Evaluate
- Purple: 2025 / Blue: 2030

Air Market Update – LSH Sector' Development



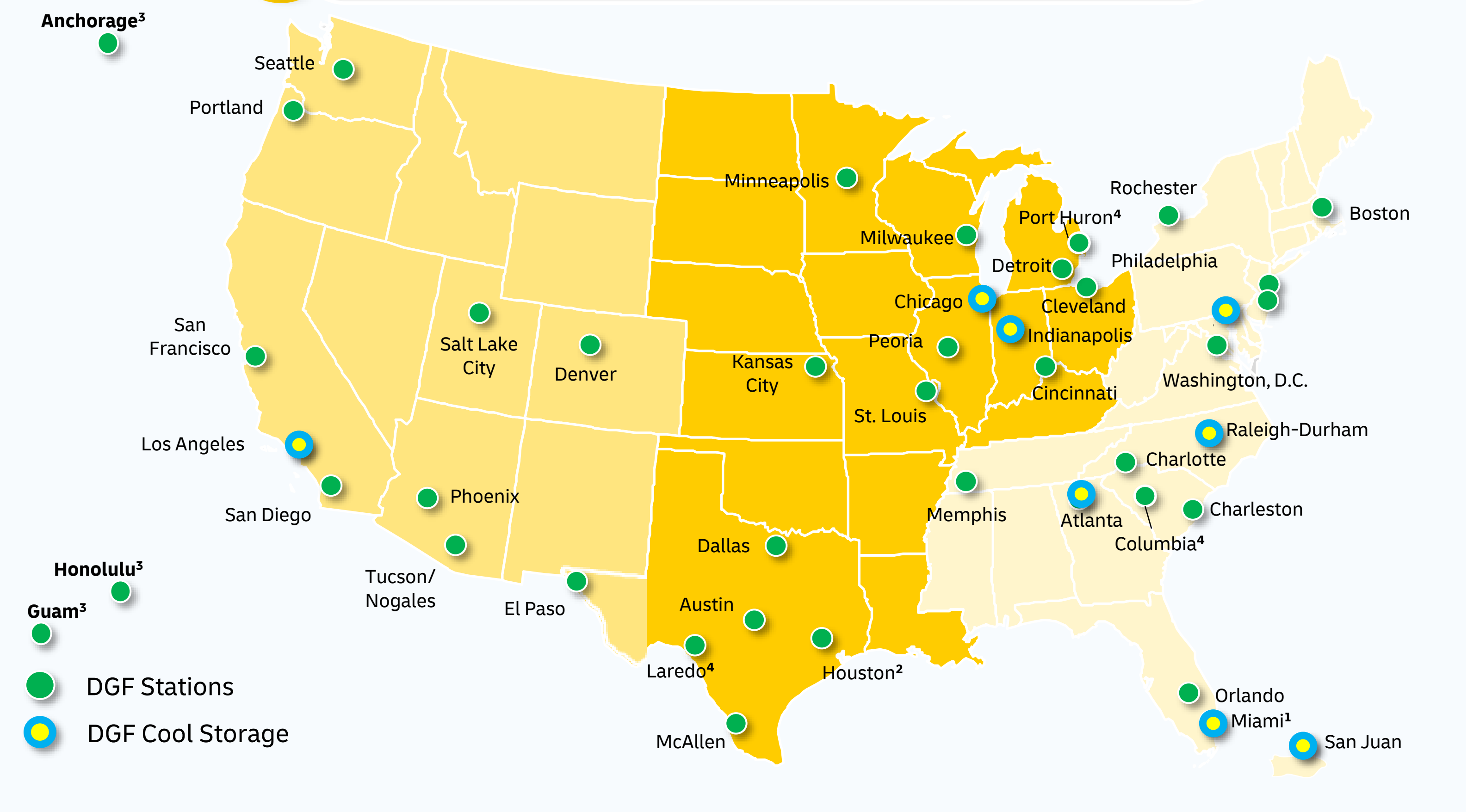
Constant evolution | Volatility | Disruptions

- Having a partner that supports your needs is key! Staying close to discuss solutions.
- Some examples of our partnership:
    - Gulf Charter Flights
    - US Investments



Air Market Update – LSH Sector' Development

DGF Cool Room Infrastructure in the US



Recent & Ongoing Investments

- **2023 – Raleigh Durham (RDU) LSH Competence Center**
  - 497sqm 2-8°C storage with 1,400 pallet racking positions
  - 497sqm 15-25°C temp-controlled storage
- **2025 – San Juan (SJU) Cold Storage Facility**
  - 2,600sqm temp-controlled warehouse dedicated to life science products
  - 1,224sqm 2-8°C and 1,378sqm 15-25°C storage
- **2025 – Los Angeles (LAX) Cold Storage Facility**
  - 452sqm pharma grade warehouse
  - 222sqm 2-8°C storage (111 exp., 111 bonded imp.)
  - 222sqm 15-25°C storage (111 exp., 111 bonded imp.)
- **Upcoming – Expansion of DGF Indianapolis (IND)**
  - Existing facility already includes 929sqm 15-25°C storage, 743sqm 2-8°C storage and 93sqm -20°C storage
- **Upcoming – DGF Cincinnati (CVG) Mega Hub**
  - Ongoing investment to develop an off-airport DGF Life Science & Healthcare facility at a 9k+sqm
  - Close proximity to DHL Express Hub

1) Miami (MIA) – U.S. Country Office; 2) Houston (IAH) – Industrial Projects Office (IAP) & AFR/OFR Station; 3) Agents; 4) Dedicated CDZ center

Ocean Market

Ocean market dynamics
Middle East Impact Direct & Indirect
LSH - High Value Cargo
LSH - Article 232
LSH - HMF Routing Decisions

DHL Life Sciences & Healthcare Forum, May 19-20, Boston

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Ocean Freight Market Outlook Q2 2026

Economic & Demand Outlook

- 3% **demand growth** in 2026 YoY (01/26), driven by continued volume surge out of Asia
- Stable **demand**, but shift from **air to ocean** continues
- Seasonal peaks (**reefer**) driving pressure on key lanes

Capacity Outlook

- Available capacity remains **uneven due to network disruption**, not true shortage
- Reefer-specific constraint: **equipment imbalances during seasonal peaks**

Freight Rates

- Rising cost base driven by **fuel** volatility and **disruption**
- Structural **cost increase** from regulation (e.g. EU ETS)
- Additional **surcharges** linked to **geopolitical** developments
- Drewry WCI ~USD 2,200+/FEU (March 2026), with increases on Asia–Europe trades
- Carriers actively pushing **reefer surcharges (e.g. +USD 400–800/CTR)**

Risk & Execution / News

- Ongoing geopolitical **disruption** impacting routing stability
- Longer transit times and reduced **schedule reliability**
- **Middle East** remains key disruption:
  - Limited carrier options, insurance constraints, volatile pricing
- **Alliance restructuring** (Hapag-Lloyd / ZIM) is reshaping networks, impacting service stability and routing options

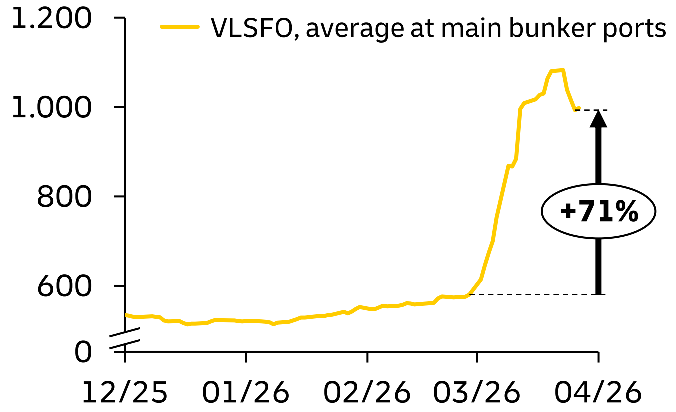
Source: WTO Outlook / Clarksons / Drewry / Sea Intelligence / Freightos /Reuters / Alphanliner / Xeneta / DHL

Deep dive: Fuel prices, ocean bunker

Barrels down, prices up

Given sudden spike in oil prices, carriers have implemented Emergency Bunker Surcharge to cover expenses; oil prices likely to remain elevated

Bunker fuel prices, last 4 months
in USD/ton



- Last month's **spike in bunker fuel prices** is unheard of in last decade and beyond
- Implementation of **Emergency Bunker Surcharges** by all carriers in recent weeks

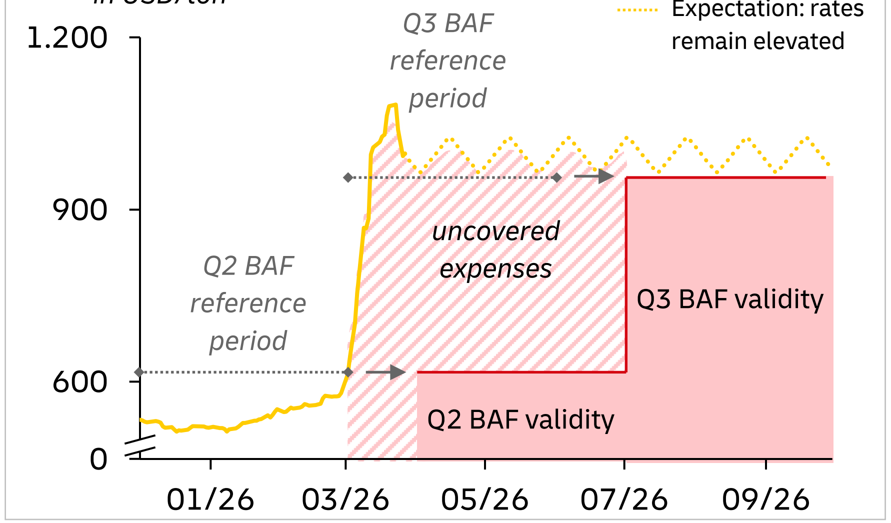
Context for Emergency Bunker Surcharges

- **Direct impact**
  - **Bunker cost** accounts for 20-25% of operating cost
  - 70%+ increase results in approx. **15% increased operating cost**
- **Indirect impact**
  - **Fuel shortages or blocked access** to typical bunker ports (Singapore, Jebel Ali) require carriers to **refuel elsewhere**
  - In these ports, fuel is **10-50% more expensive** than average, next to **opportunity cost to re-route**
- **Asia is impacted most** given shorter lead times in oil supply chain due to geographic proximity, whereas Europe is likely **impacted in upcoming weeks**

Carrier reasoning for bunker surcharges

- Despite **regular bunker adjustments**, recent spike leads to cash outlay that carriers argue they **cannot stem alone**
- The following **illustration of a quarterly BAF** outlines the issue:

in USD/ton



Sources: DHL Global Forwarding, Bunker Index

Direct Middle East impact

Immediate effects on ocean shipping

Persian gulf ports are not called | Impact to cargo to and from the Gulf – cargo is being discharged into alternate, congested ports (e.g., Jeddah, SA; Salalah/Sohar, OM; Khor Fakkan, AE), and requires costly overland re-routing to its destination

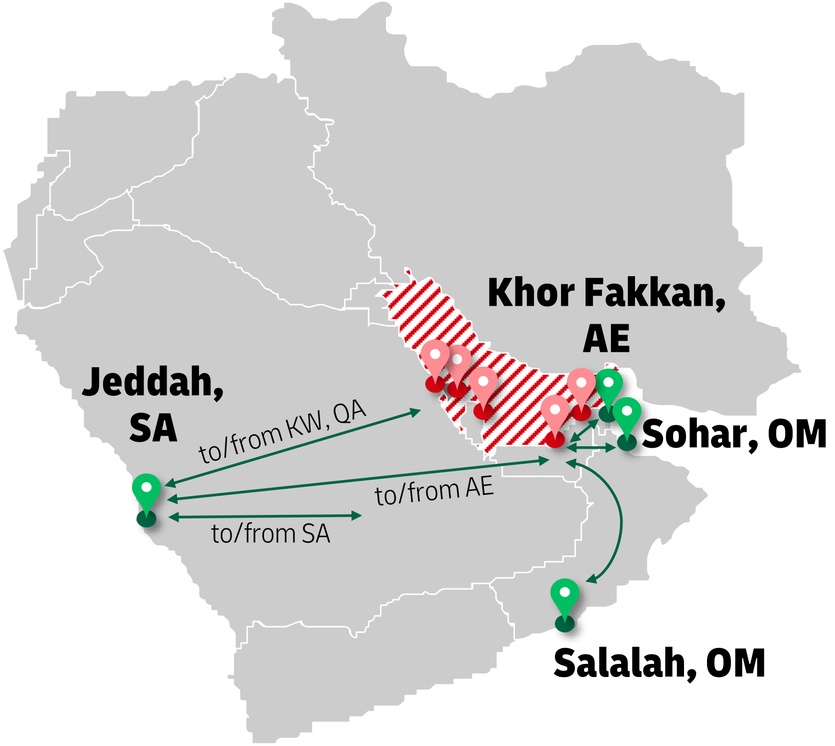
100+ vessels are stuck in the Persian gulf | With capacity of approx. 400,000 TEU, slightly more than 1% of global capacity - although some vessels have managed to obtain permission and leave the Persian Gulf, for a rumored fee of up to USD 2mn

Suez return is off the table | As the Houthis are back on the map with threats to shipping issued in late March; some Asia-Gulf cargo is taking the long way around Africa to enter the Suez from the Mediterranean, taking up capacity on Asia-Europe Med

Impact on Reefer / Pharma Cargo

- Limited plug availability at alternative ports
- Higher risk during re-routing and extended dwell times
- Not all alternative on-carriage are GDP-compliant
- Increased need for controlled inland solutions (e.g. genset trucking)

Alternative routing options



Sources: DHL Global Forwarding, Linerlytica

Indirect Middle East impact

The butterfly effect is real

Port congestion increases

- With increased cargo volumes in transshipment ports, both smaller ones in the Middle East (UAE, Oman) as well as larger regional ones (Sri Lanka, Singapore), next to anchored vessels

Container equipment is getting scarce

- As the flow of empty containers from the Gulf back to Asian origins is interrupted, which is starting to create an equipment imbalance in Asia

Bunker fuel availability is reduced

- in typical bunker ports such as Singapore, with refueling delays of 10+ days; to maintain Asia-Europe schedules, carriers must bunker in other Asian ports or along the route at an increased cost

Global impact

Given global nature of shipping, shippers may experience **some disruption**:

- Extended **transit times** due to re-routing, re-allocation of capacity, and unscheduled bunkering
- Reduced **connectivity** to, from, and via the Middle East
- **Capacity** constraints due to Persian Gulf blockage and re-routing of Gulf cargo via Mediterranean
- **Fuel-related surcharges** in the shape of emergency bunker surcharges, next to emergency ground fuel surcharges
- Higher risk of **temperature deviations** due to longer transit times
- Reefer **equipment shortage** impacting availability at origin
- Increased need for **monitoring**

Sources: DHL Global Forwarding, Bunker Index, Sea Intelligence

High-Value Cargo in Ocean Freight – Impact on Execution

Market development

- More Life Sciences cargo is shifting from air to ocean
- As a result, shipment values per container are increasing

Industry reality

- Ocean carriers have value limits per container
- **Around USD 500,000+, handling changes:**
  - high-value surcharges may apply
  - carrier acceptance becomes more selective
  - not all trade lanes or carriers are available

Why this matters

Ocean carriers have value limits per container

- Carrier liability is limited
- High-value cargo increases financial and operational risk exposure
- Therefore, carriers require additional control and clarity

Operational impact

Without prior alignment:

- bookings can be rejected
- shipments may need to be re-planned
- routing options become limited
- flexibility at short notice is reduced

What enables execution

- Early transparency on shipment value is critical
- **In some cases, a formal agreement (e.g. LOI) is required:**
  - to confirm cargo value
  - to clarify responsibility
  - to secure carrier acceptance
- **This allows:**
  - stable planning
  - access to more carrier options
  - better control over the shipment

Section 232 Tariffs on Pharmaceutical Articles July 2026 – Impact on Ocean Freight

Trend we see in OFR:

- Imposition of 100% tariff on imported pharma ingredients (branded)
- Special tariff Provisions:
  - Companies with onshoring plans
  - Generic Drugs
  - Special agreements with HHS/Exemptions
  - Specific Origins

What this changes in OFR

- Trade Flows Re-Routing
- Ocean Freight Volatility
  - Surge Frontloading
  - Reduction of volume right after
- Reshore and Nearshore of production

What this means for you

- Rerouting to lower tariff origins
- Increased total Logistics Costs
- Increased Airfreight
- Focus on short-haul logistics and transportation

Harbor Maintenance Fee (HMF) – Impact on Routing Decisions

What is happening

Increased focus on **HMF for US imports** (0,125%)
Applied to cargo entering via **US seaports**
Creates additional cost for ocean shipments
Speculation as to policy tightening in connection with section 232

What we see in practice

Some flows shifting via: **Canada (e.g. Montreal)** to avoid HMF
Advantage narrowing due to **new enforcement** risk and admin fees

What this means for you

Routing decisions now depend on:
Transit time
Service
regulatory exposure (HMF enforcement risk)
total landed cost (incl. HMF + admin fees)