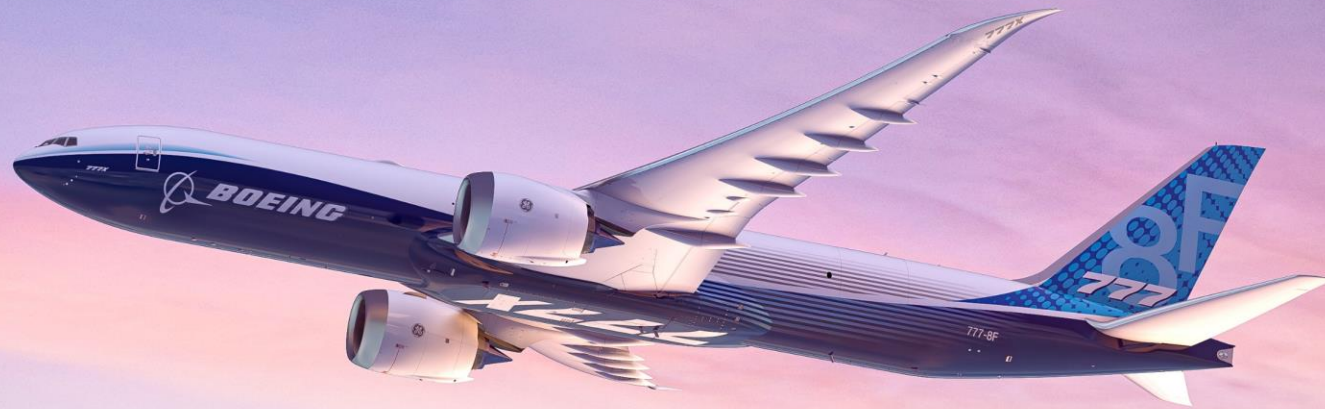




cargo facts symposium
2024

Cargo Market Update and Forecast

Aaron Tayler, PhD
Regional Director, Market Analysis – Air Cargo
Boeing Commercial Airplanes
October 16, 2024



Global Air Cargo Market Update

Industry Trends

World Air Cargo
Forecast, 2024-2043



Air cargo has a unique place in the global economy

<1%

world trade tonnage

35%

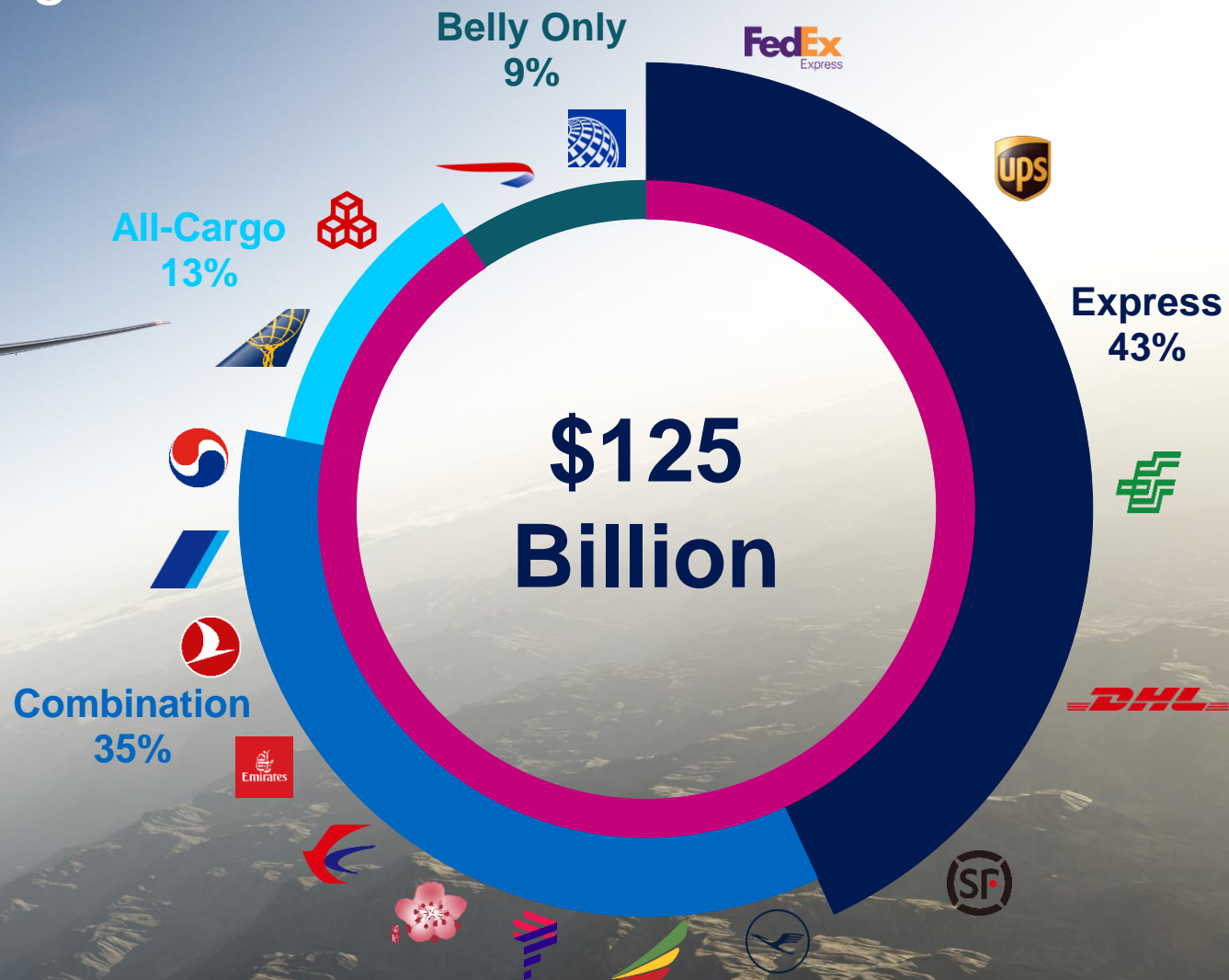
world trade value

Freighters play a key role in air cargo



>90%

of industry cargo revenues
are generated by airlines
operating freighters

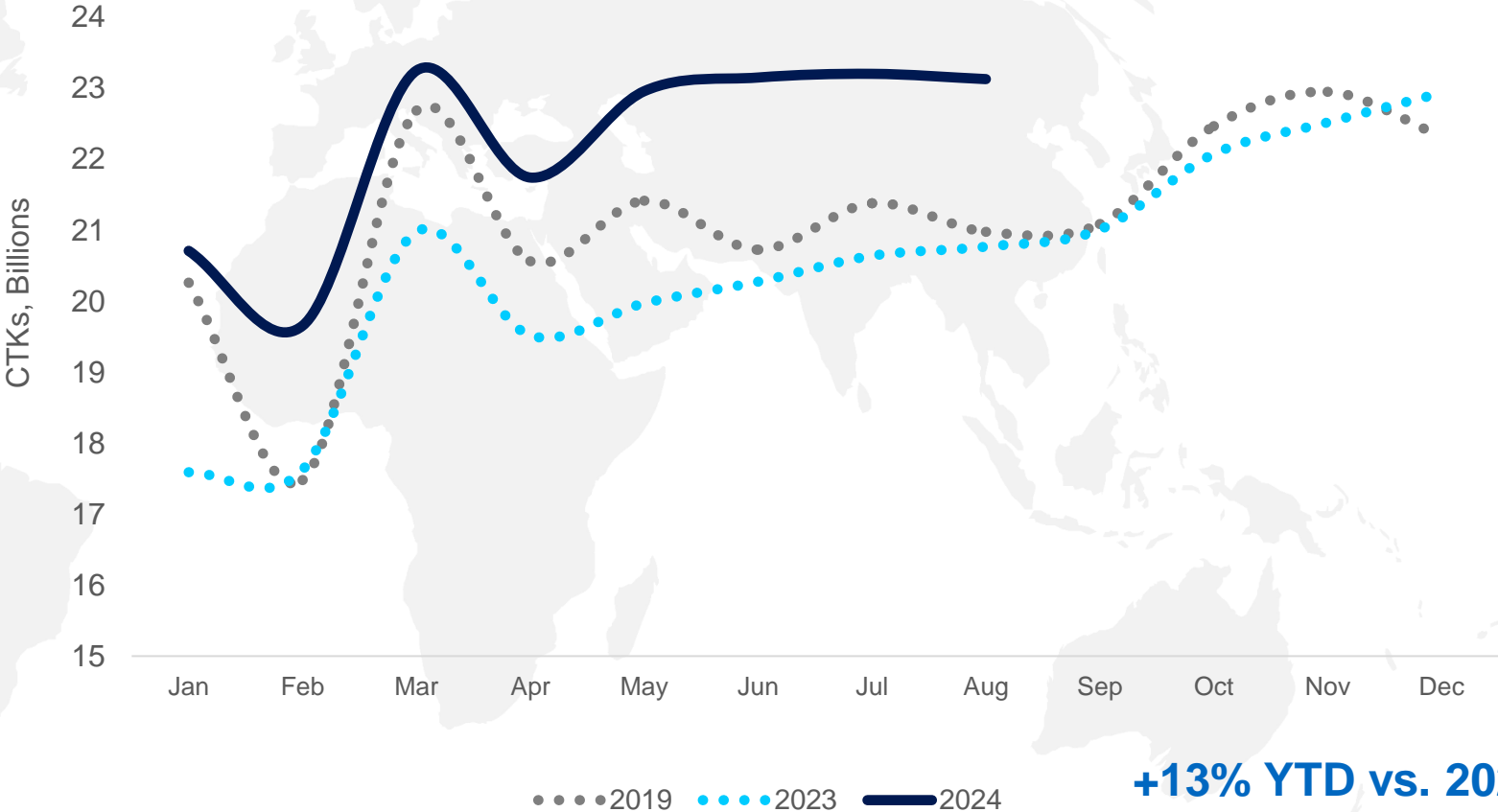


Global air cargo traffic continuing strong growth

In Jan-Aug 2024, traffic was up

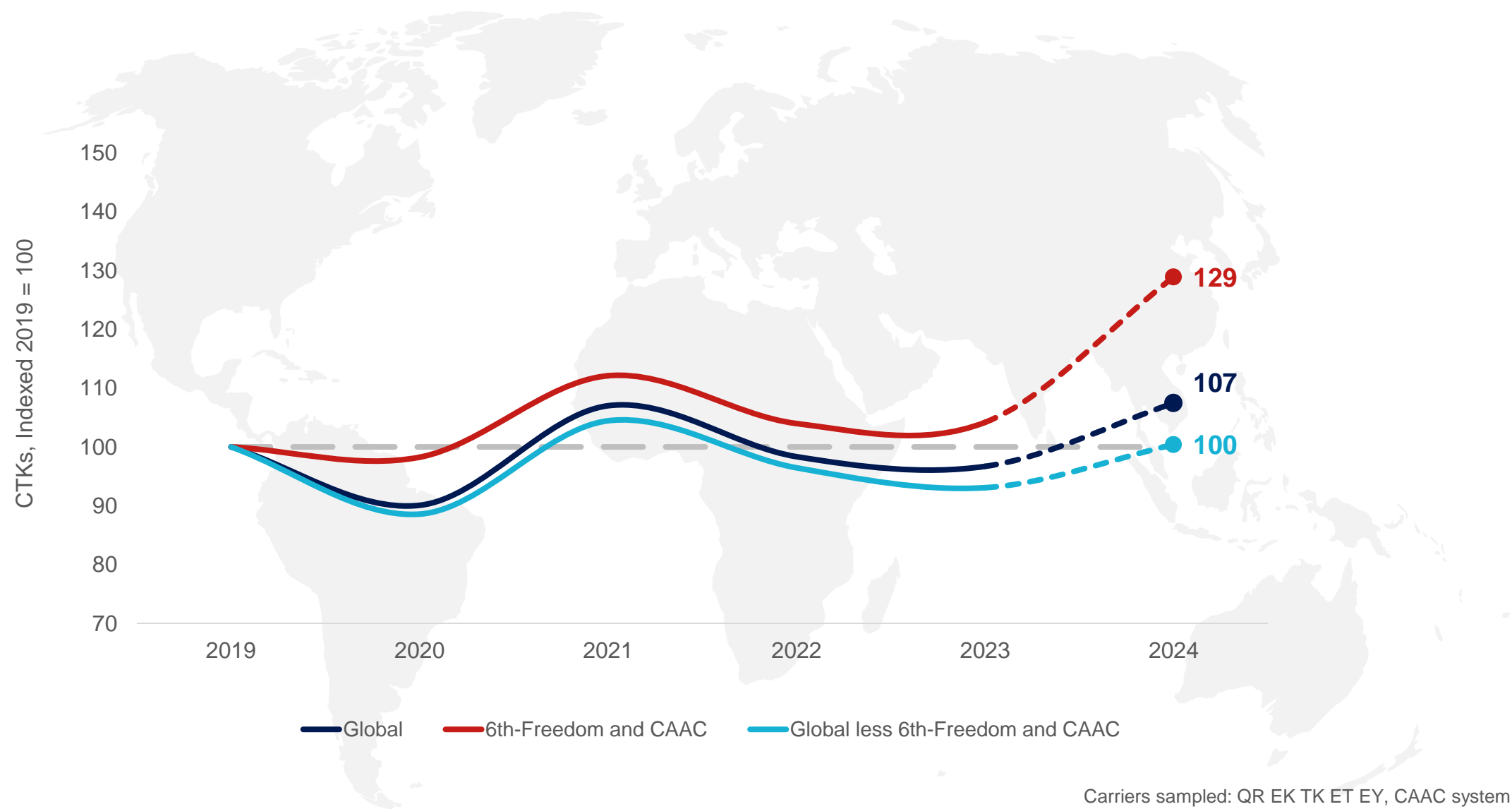
+7%

vs. the same period in 2019



+13% YTD vs. 2023

Sixth-Freedom and Chinese carriers lead market growth



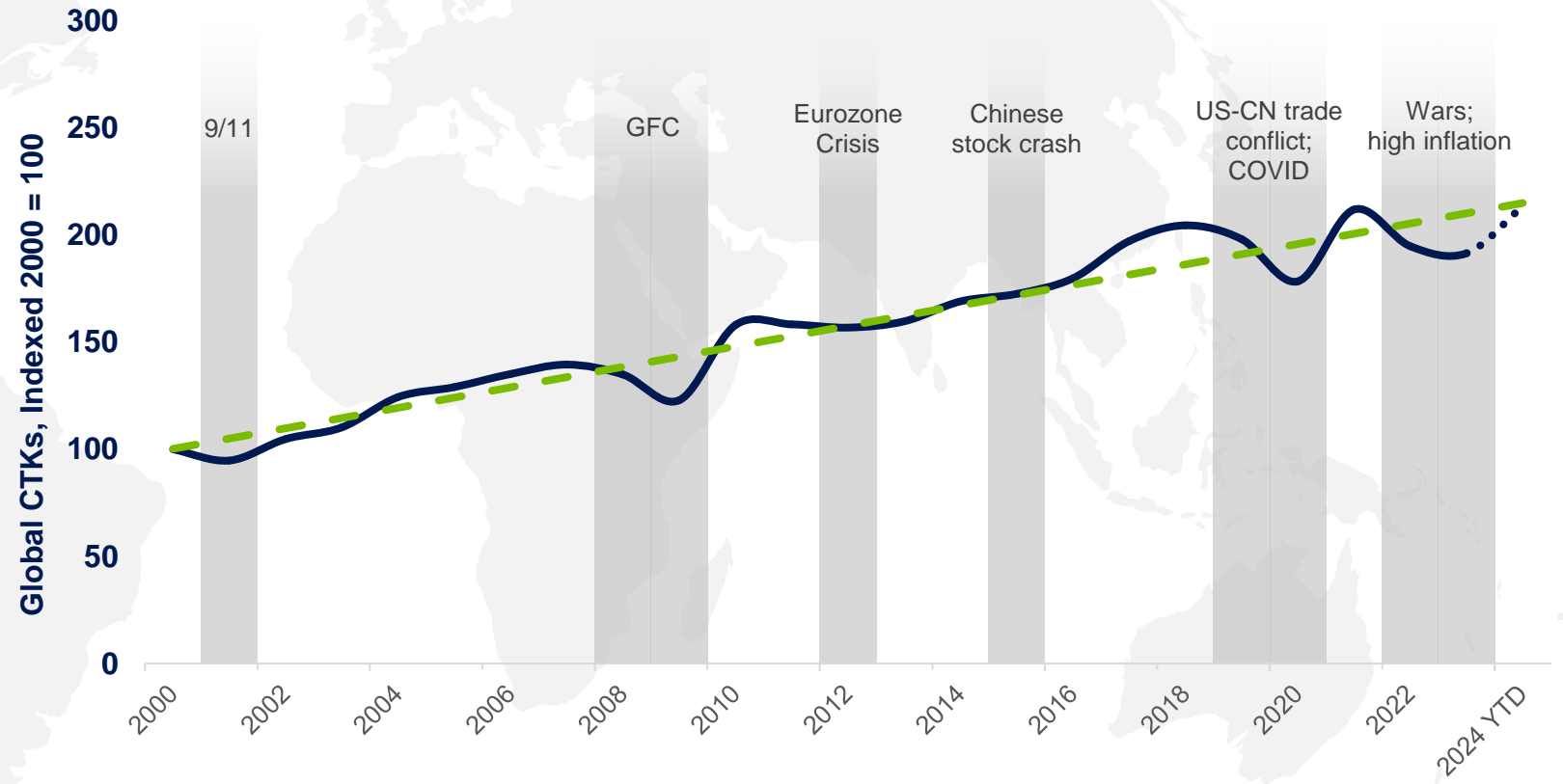
SOURCE: IATA Monthly Statistics; Boeing analysis.

The world air cargo market is resilient

Air cargo has grown an average of

+2.7%

per year over the last twenty years

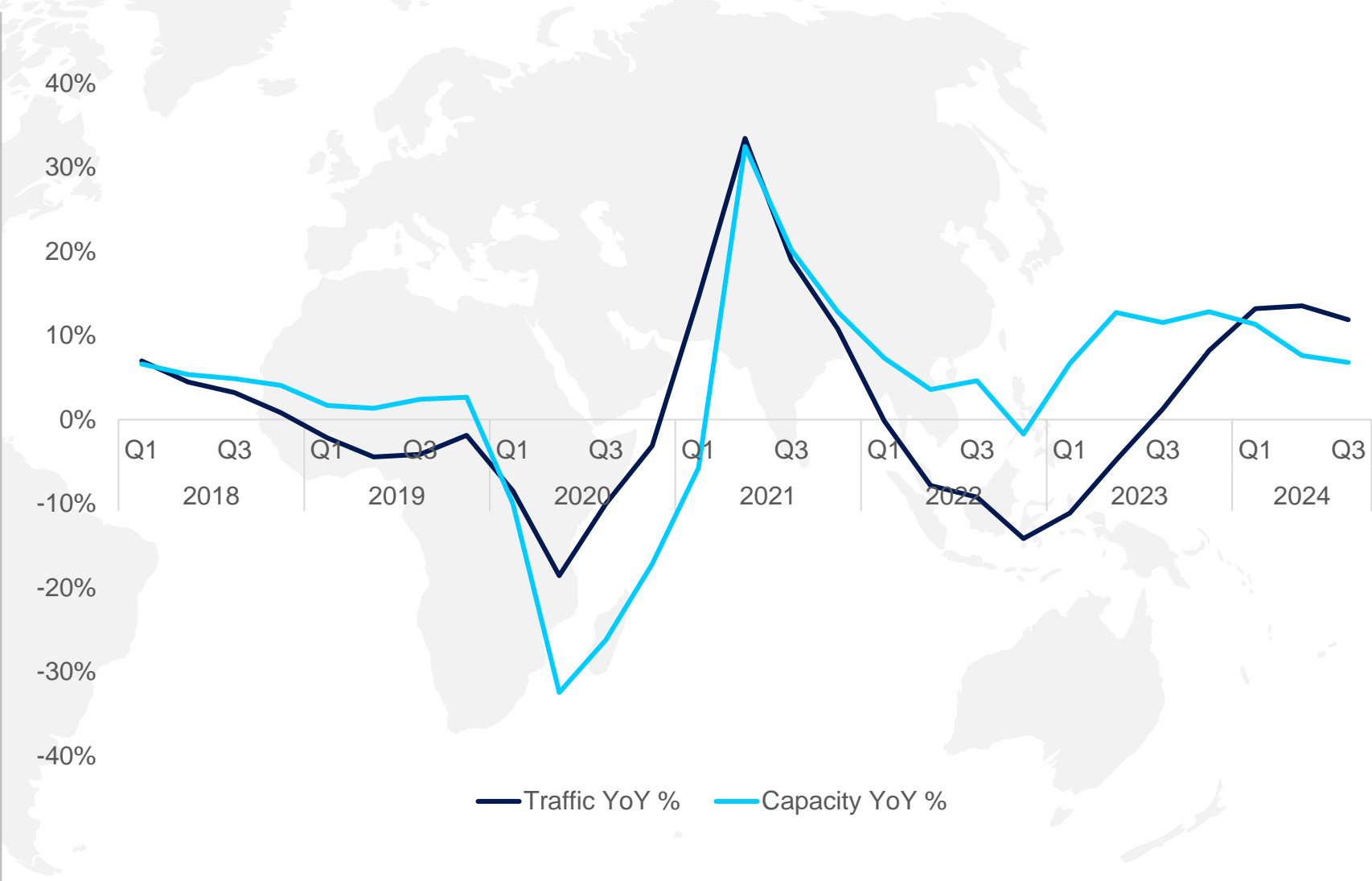


Demand growth outpacing supply growth

Global load factors are up

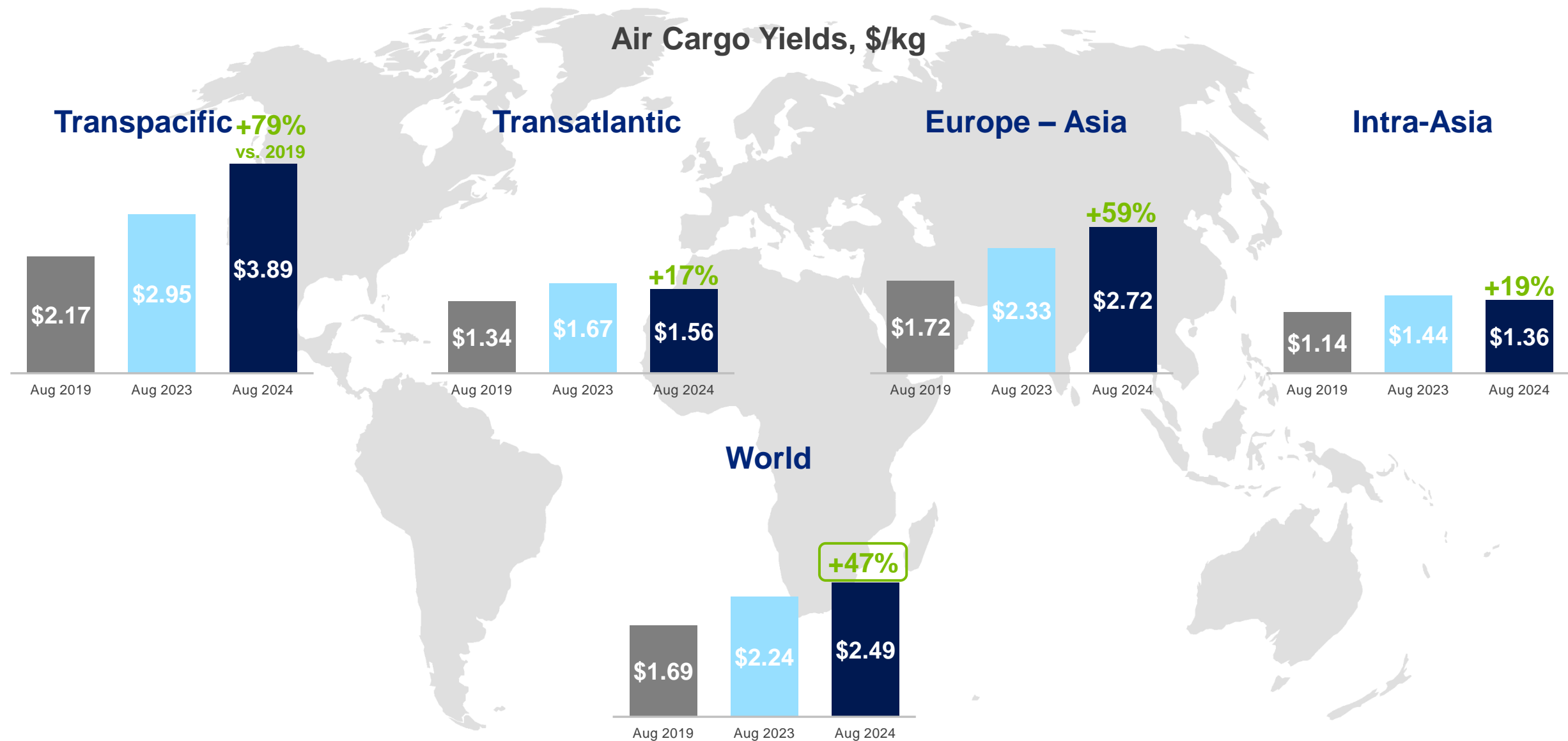
+1.3
points

year-over-year

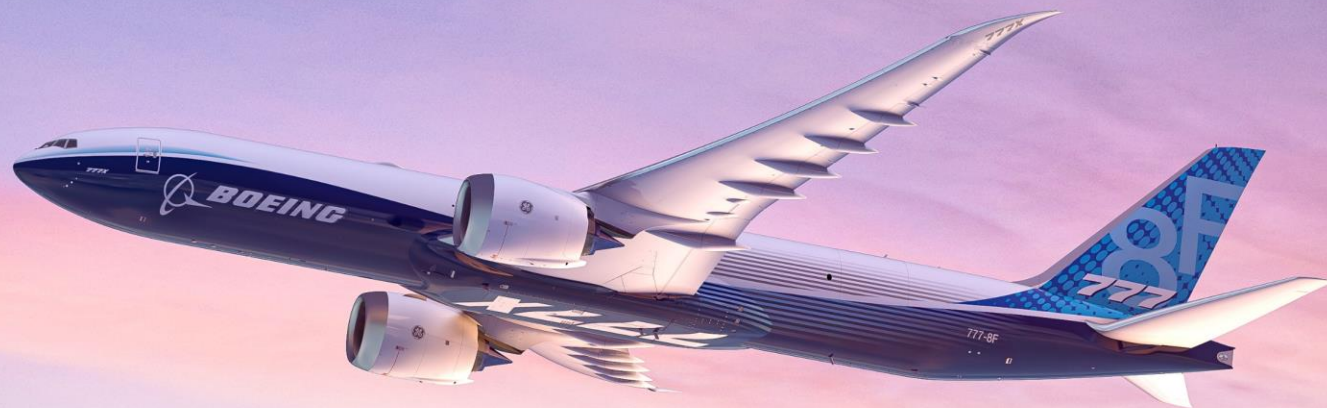


SOURCE: IATA Monthly Statistics; Boeing analysis.

Air cargo yields remain elevated on major flows



SOURCE: IATA CargoIS; Boeing analysis. "Asia" = East Asia.



Global Air Cargo Market Update

Industry Trends

World Air Cargo Forecast, 2024-2043

The air cargo market continues to evolve



E-commerce
growth

Supply chain
diversification

Containership
trends

The air cargo market continues to evolve

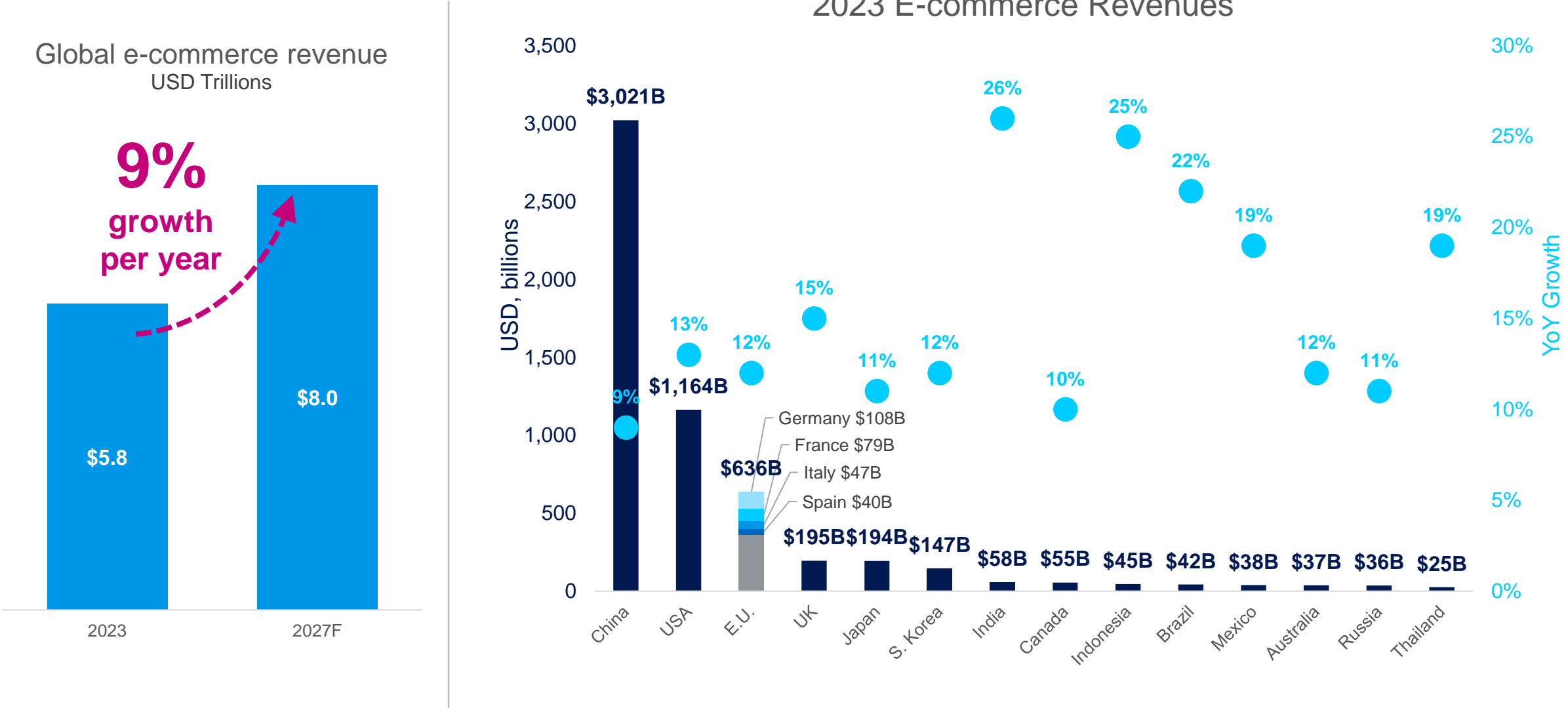


**E-commerce
growth**

Supply chain
diversification

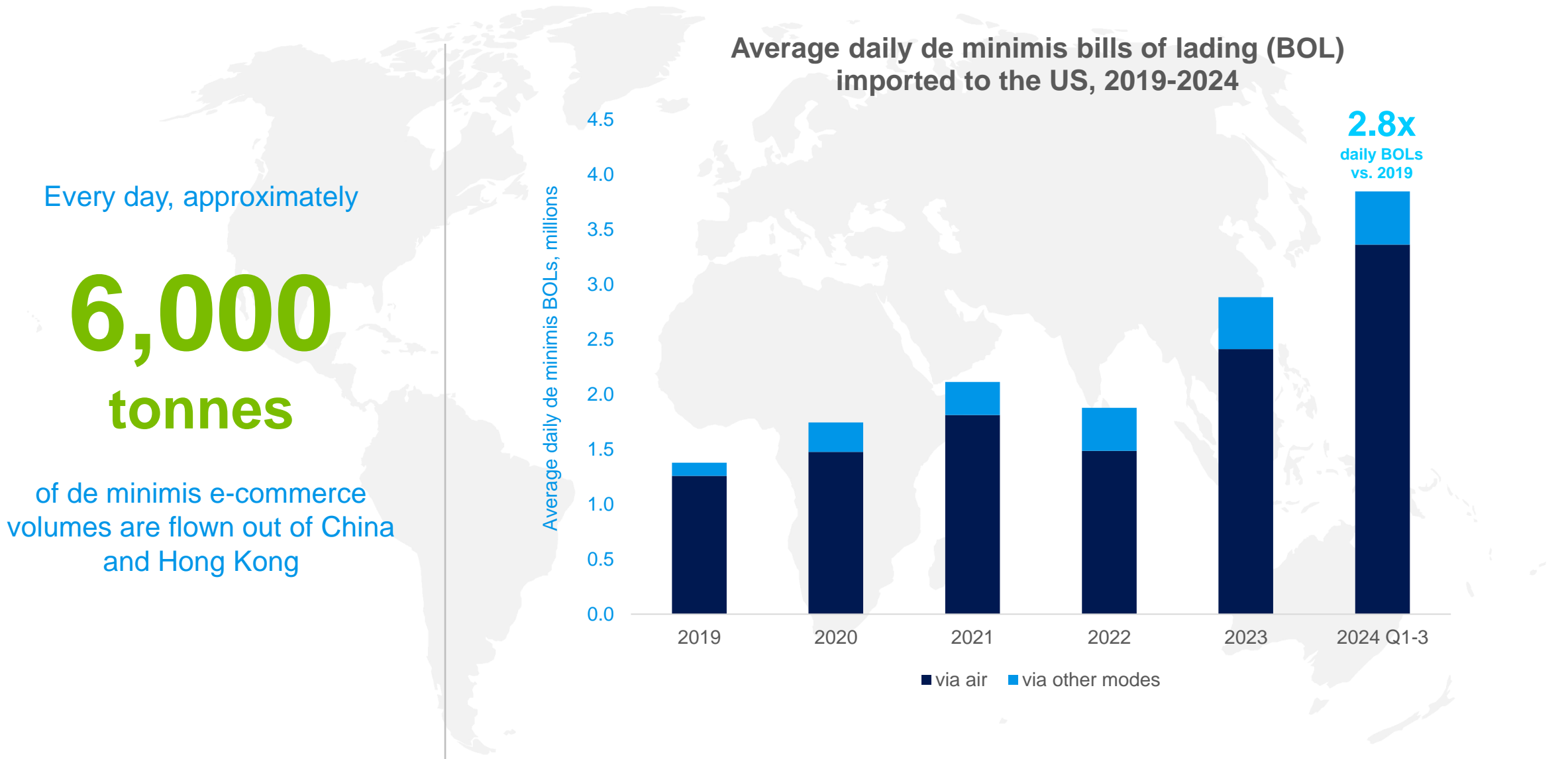
Containership
trends

E-commerce is an important contributor to global air cargo growth



SOURCE: Boeing ACTD; IATA; eMarketer; Digital Commerce 360; Boeing analysis.

Unprecedented growth of de minimis e-commerce fueling air cargo surge



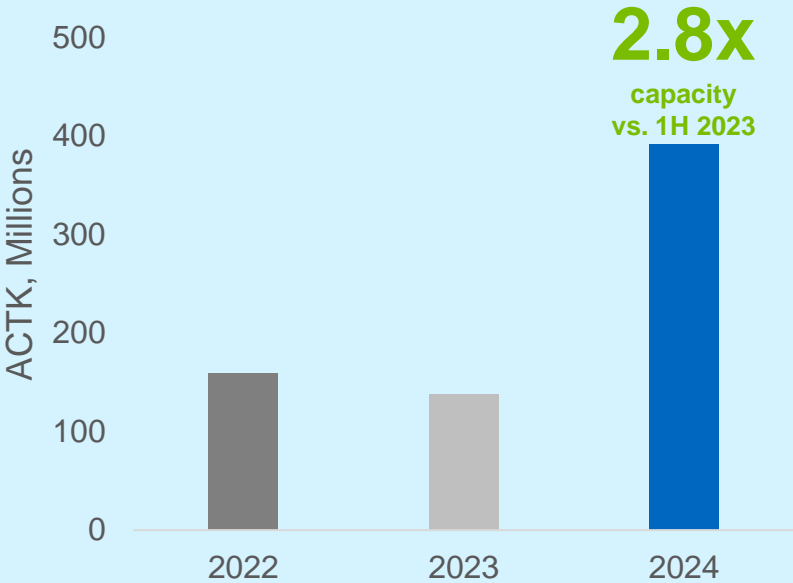
Current dynamics in Asia demonstrate reliance of e-commerce on air cargo

Rise of Macao as an air cargo hub

Proximity of Macao to manufacturing hubs in Zhongshan, Zhuhai



Jan-Jun freighter capacity at Macao (MFM)



Air cargo tonnage handled, YoY %

HKG	+18%
CAN	+28%
SZX	+20%
MFM	+120%



The air cargo market continues to evolve



E-commerce
growth

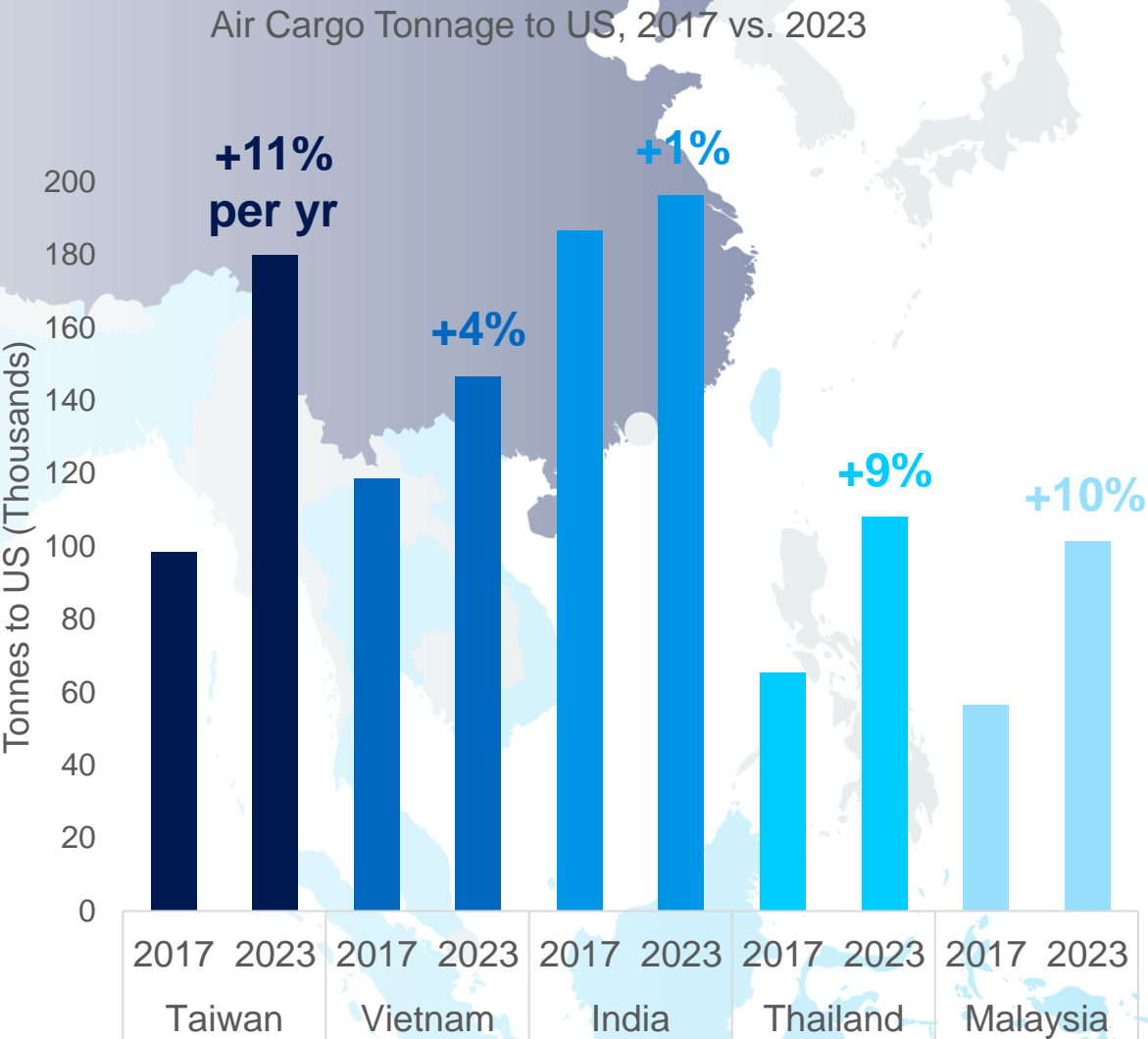
**Supply chain
diversification**

Containership
trends

Supply chain diversification is reconfiguring cargo flows out of East Asia



Manufacturers are looking to ASEAN, Taiwan, India and Mexico to diversify supply chains in response to increasing risk



SOURCE: US Census Dep FT920; low value shipments not included

The air cargo market continues to evolve



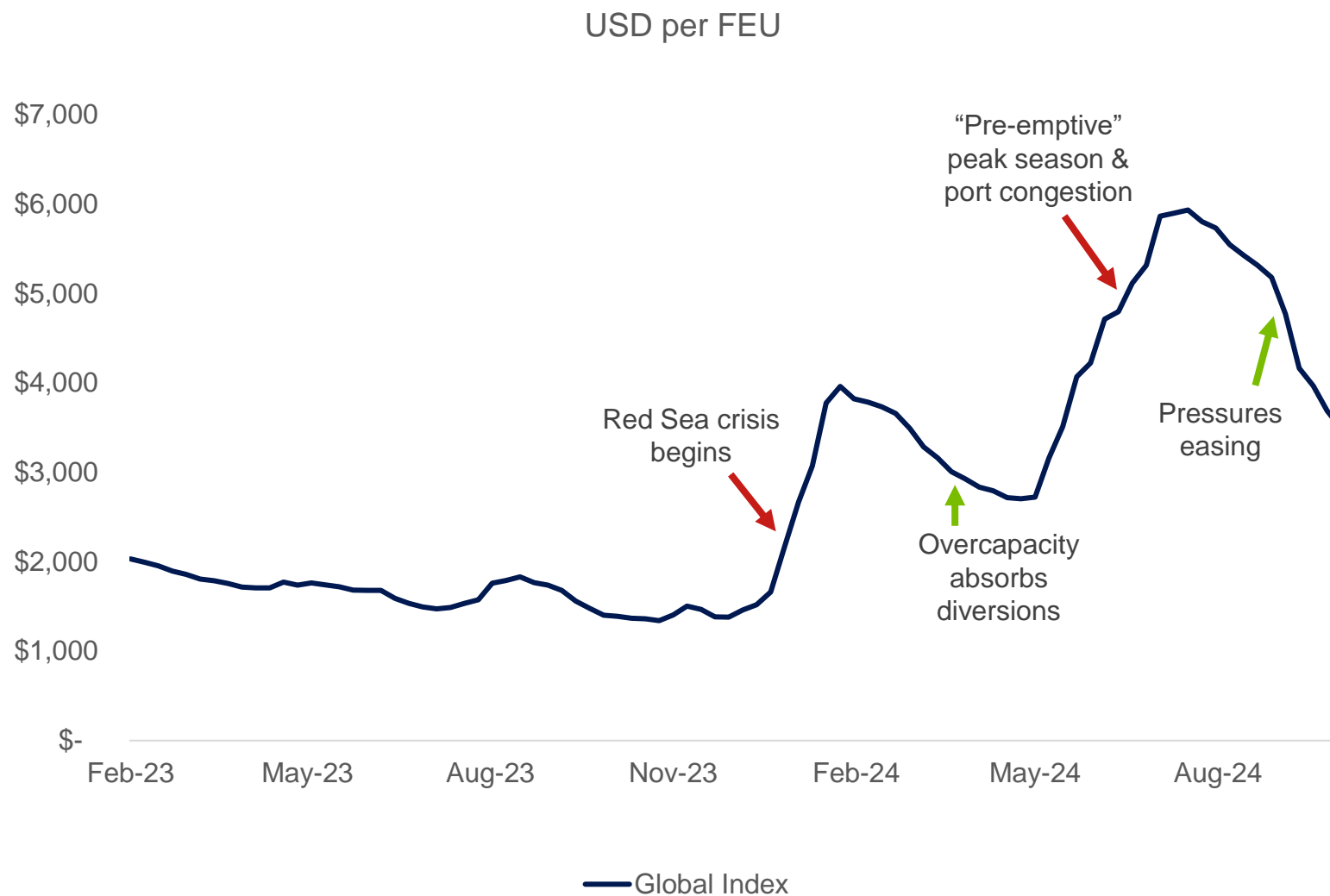
E-commerce
growth

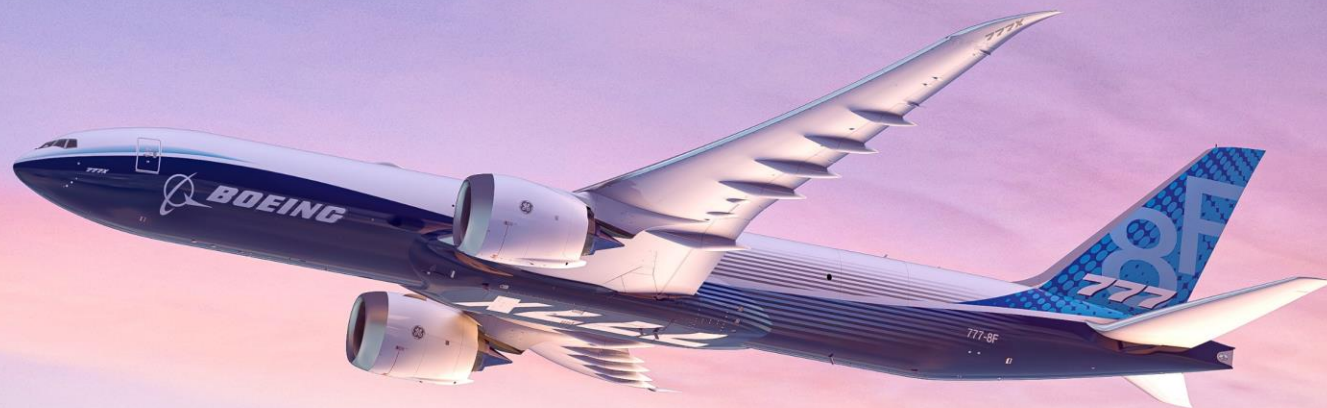
Supply chain
diversification

**Containership
trends**

Red Sea disruptions continue to impact the containership market

Tight capacity
Strong demand
Shipper frontloading
Operational disruptions





Global Air Cargo Market
Update

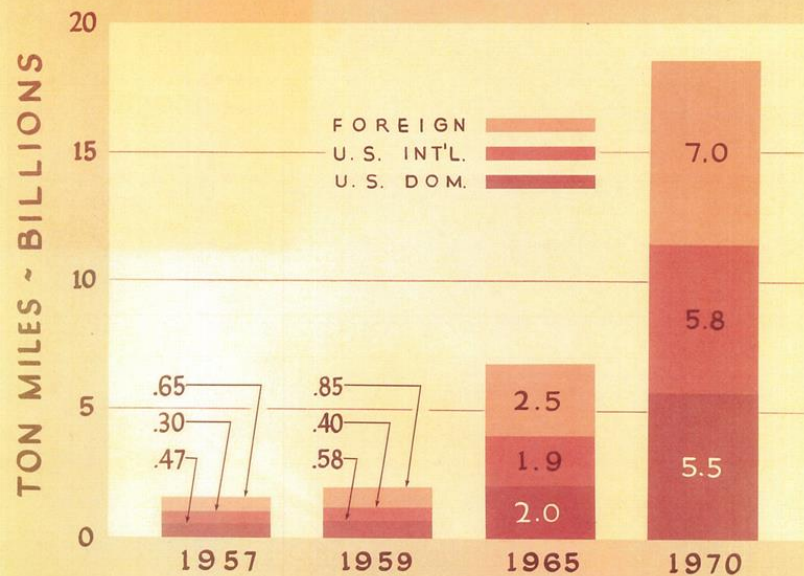
Industry Trends

**World Air Cargo
Forecast, 2024-2043**



Over a century of experience advancing air cargo

WORLD AIR CARGO



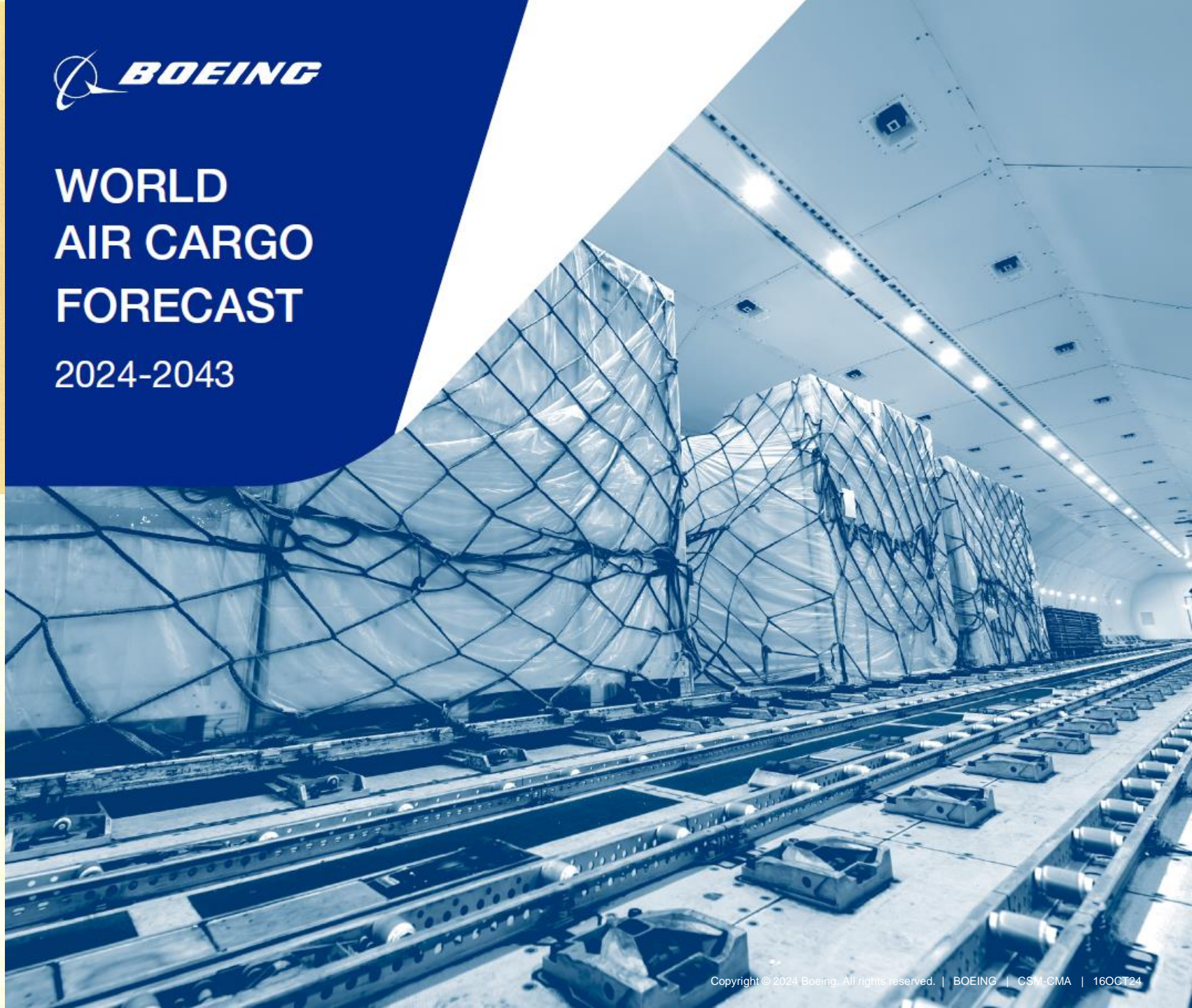
WORLD AIR CARGO

Air cargo developments point the way to a tremendous new market for jet transports. The fast-growing, but still small, air cargo industry of 1957 - 1959 will have increased sharply by 1965 in all markets. From that point on, the world air cargo business will assume even more impressive proportions, particularly in the foreign and U.S. - international areas.

The vastly superior work-rate and economics of the jet transport foretell that most of the cargo planes to be procured during 1965 - 1970 will be "pure jet" types. Needless to say, Boeing will be increasingly active in this field.



WORLD AIR CARGO FORECAST 2024-2043



Asian markets will lead air cargo growth over the next 20 years

2.9%
World trade



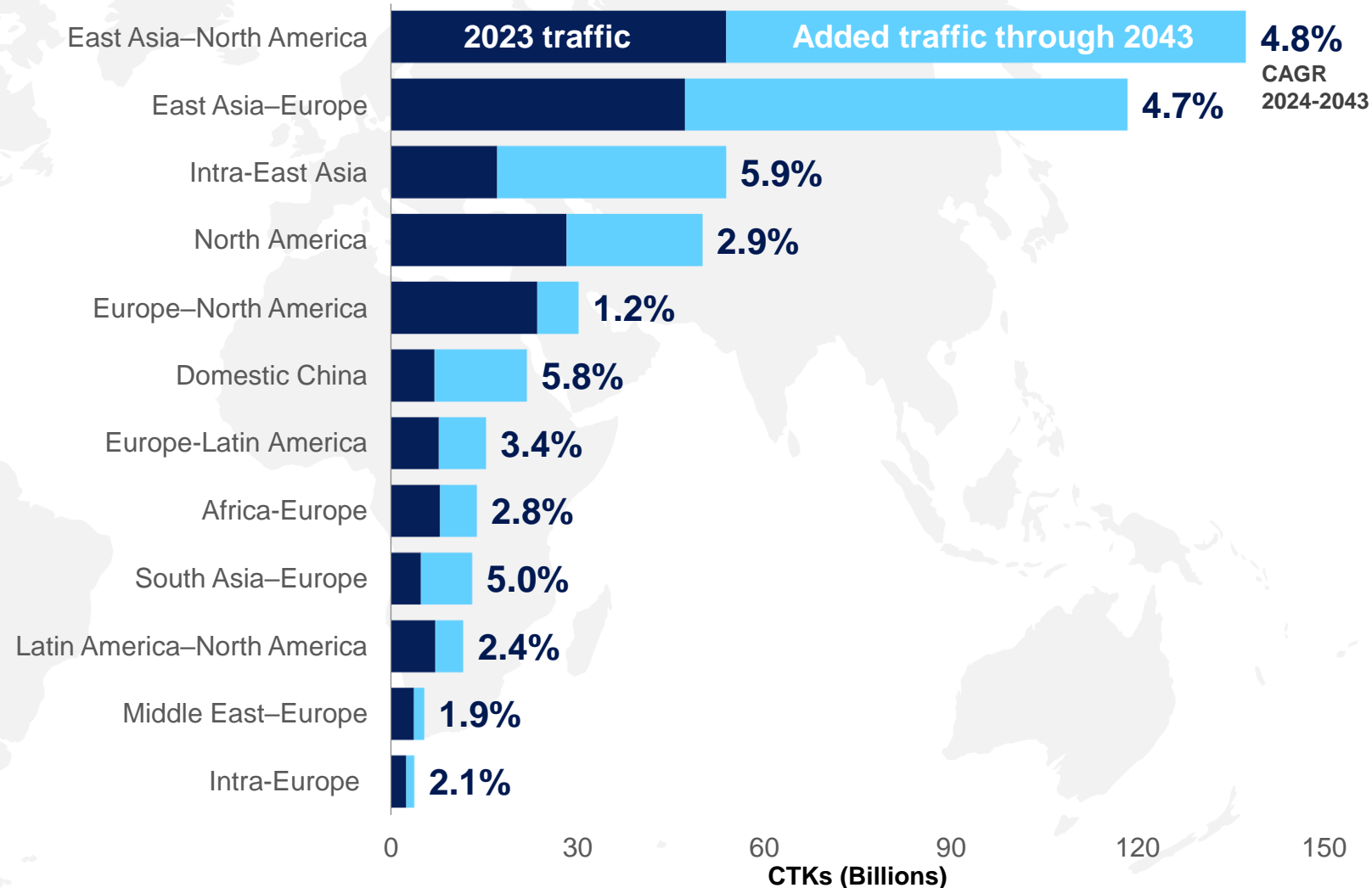
2.6%
World GDP



4.1%
Cargo traffic

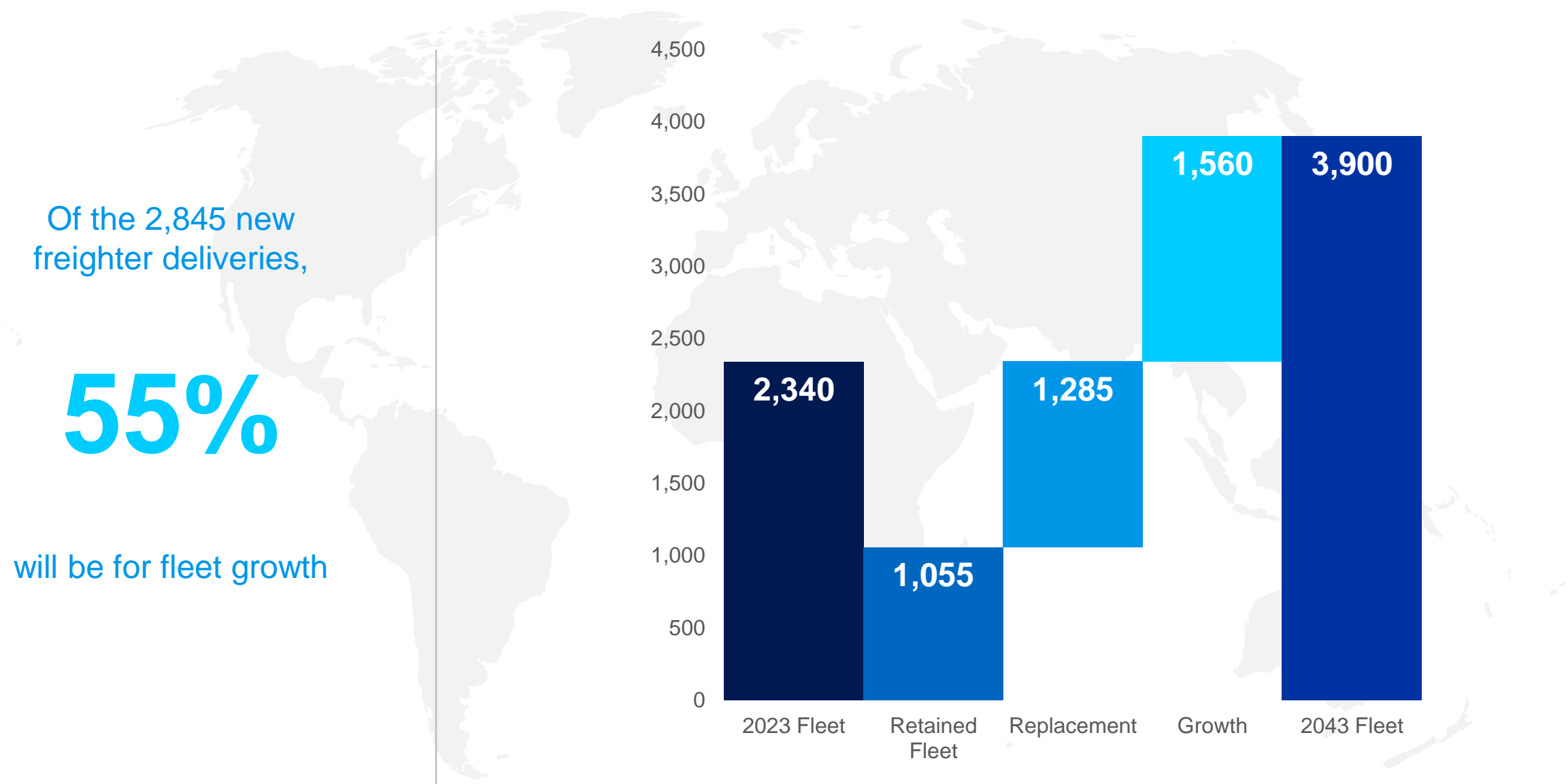


2.6%
Freighter fleet



SOURCE: Boeing Commercial Market Outlook July 2024, Forecast period 2024-2043; S&P Global

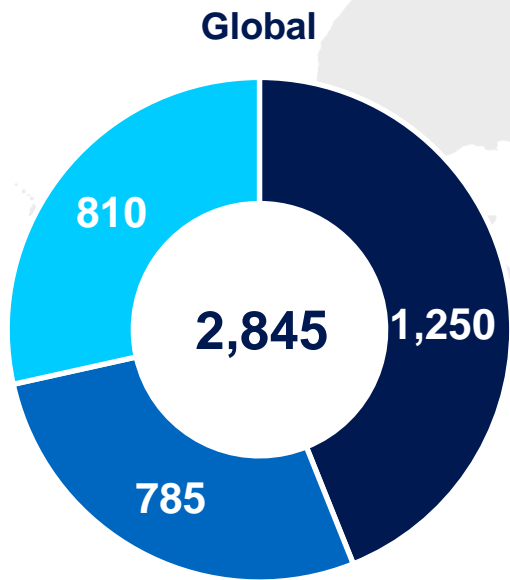
New freighters will boost efficiency and support demand growth



SOURCE: Boeing Commercial Market Outlook July 2024, Forecast period 2024-2043

Asia Pacific to lead freighter deliveries through 2043

Freighter Deliveries
2024-2043



Large
widebody
> 80 tonnes

Medium
widebody
40-80 tonnes

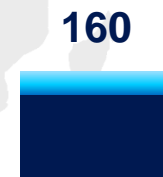
Standard
body
<40 tonnes



North America

% of
world total

34%



Latin America

6%



Middle East &
Africa

9%



Eurasia

18%



Asia Pacific

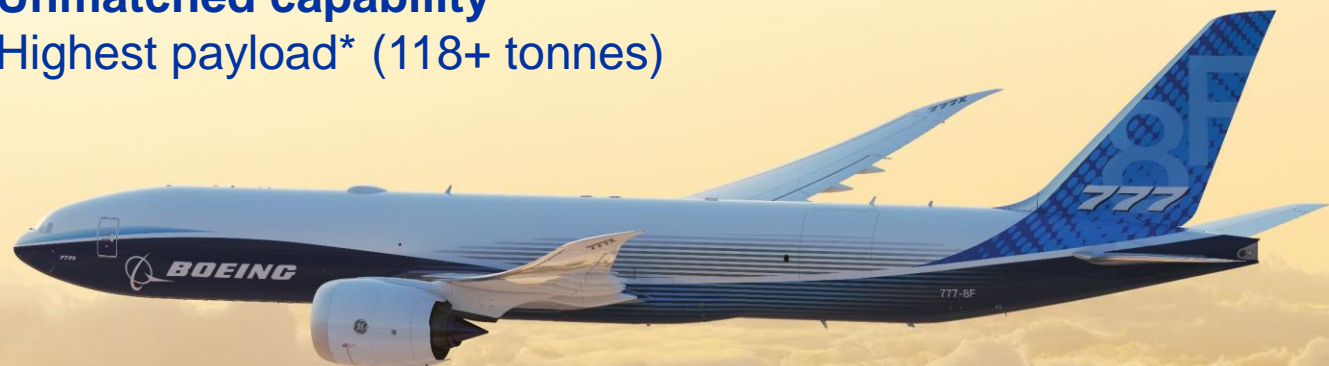
34%

Boeing offers a complete family of freighters



The 777F and 777-8F lead the widebody market

Unmatched capability
Highest payload* (118+ tonnes)



Unmatched excellence
World's best-selling freighter



777-8F is the natural 747-400F replacement

55 firm orders



LUFTHANSA GROUP



ANA Cargo

silkway
west airlines



118+ tonnes

Identical payload capability

30%

Lower fuel use per tonne

25%

Lower operating costs per tonne

100+ nmi

More design range



World Air Cargo Forecast

2024-2043

Update coming November 2024



