



Air Cargo Market Outlook and Freighter Fleet Forecast

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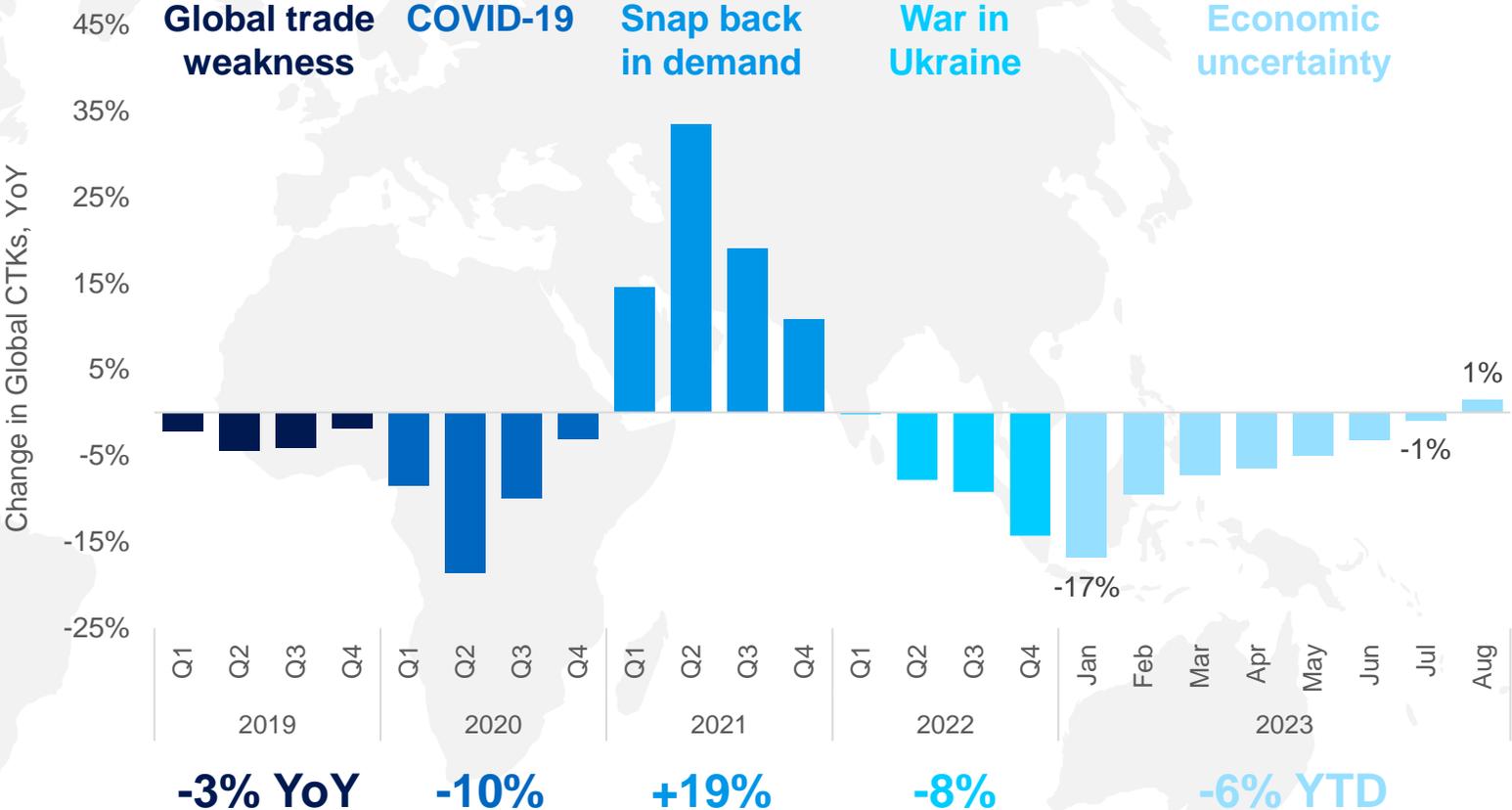
World Air Cargo Forecast

Global traffic YTD remains down vs. 2019 but bottomed out in January

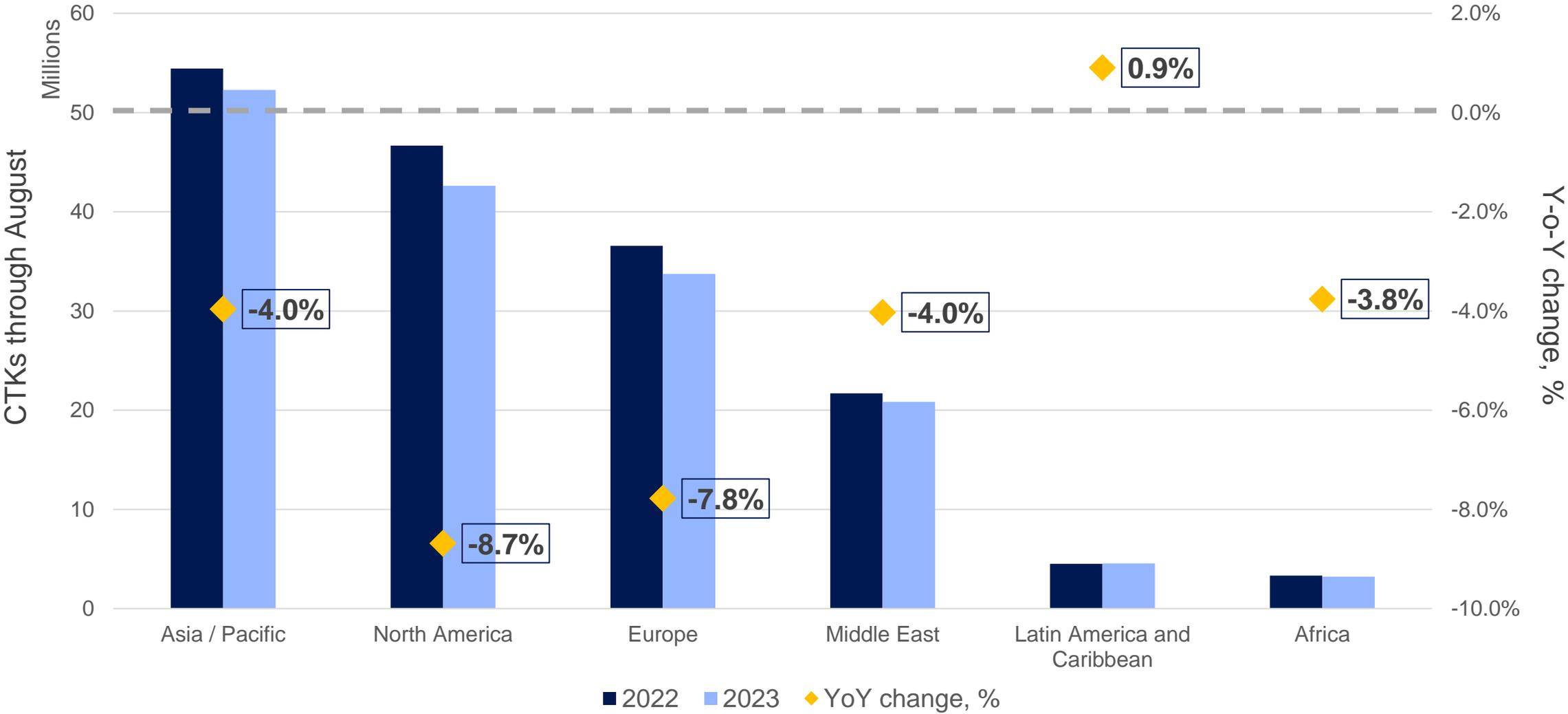
In Jan-Aug 2023, traffic was down

-5%

vs. the same period in 2019



All regions' cargo carriers, except Latin America, with lower y-o-y traffic growth YTD 2023 vs YTD 2022



SOURCE: IATA Monthly Statistics

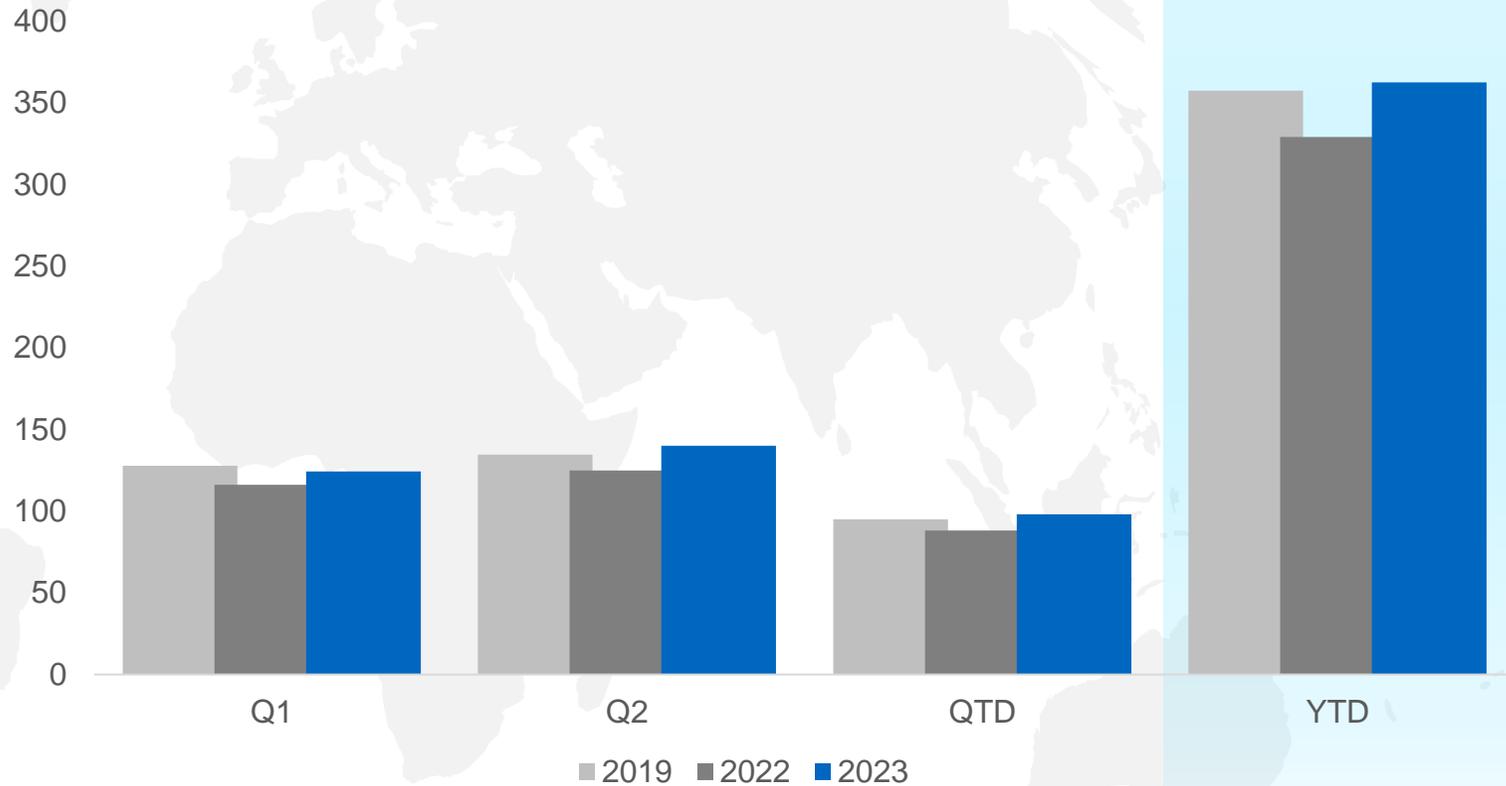
Global air cargo capacity YTD remains flat vs. 2019

In Jan-Aug 2023,
capacity was up

+1%

vs. the same period
in 2019

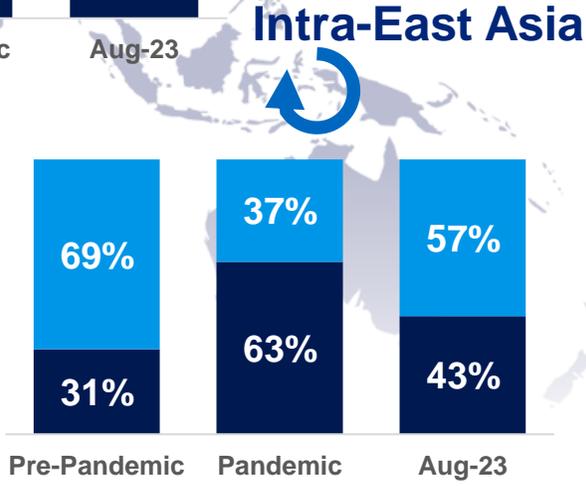
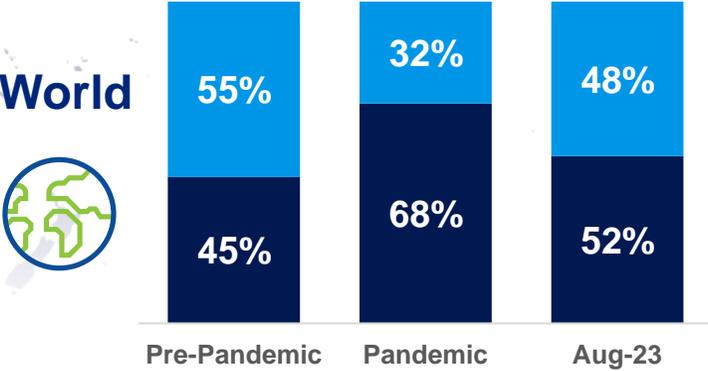
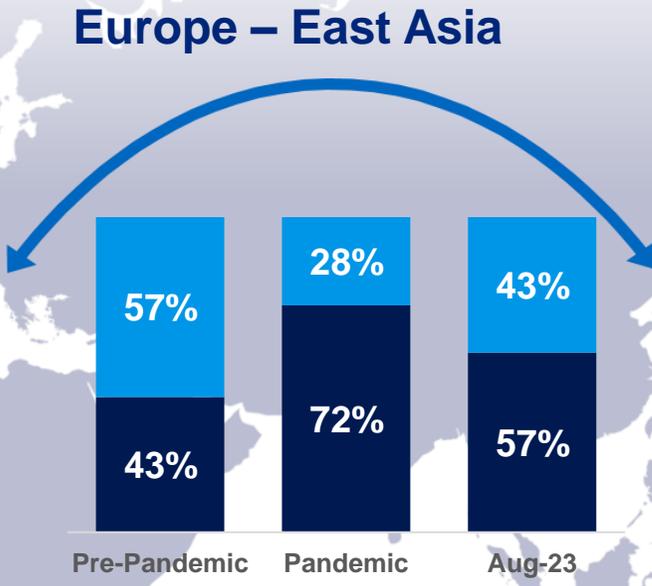
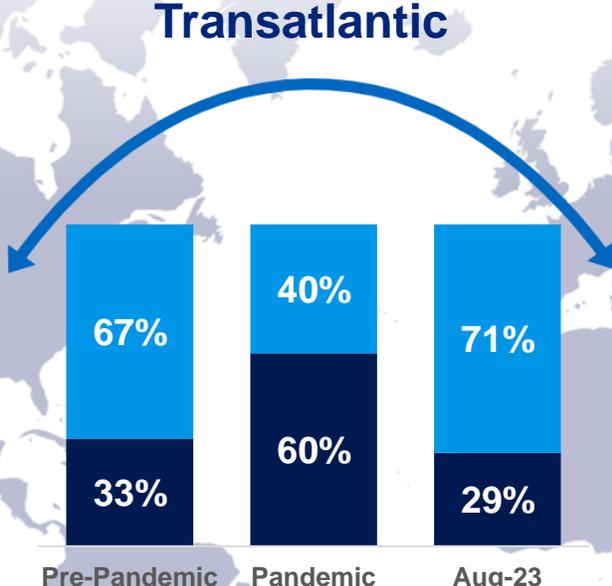
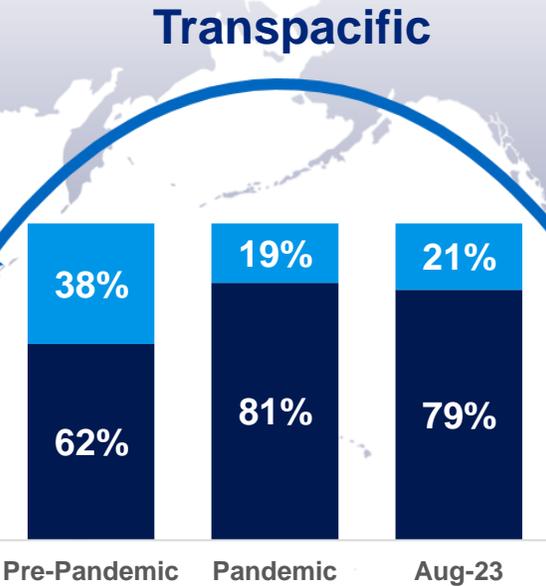
Available CTks (ACTks), Billions



**+10% YTD
vs. 2022**

Industry remains reliant on freighters, even as passenger widebody capacity returns

Freighter vs. **Passenger Widebody** Cargo Capacity Share (%)



SOURCES: BR&T-E ADAPT/FlightRadar24

Pre-Pandemic = March 2018 to February 2020 | Pandemic = March 2020 to February 2022

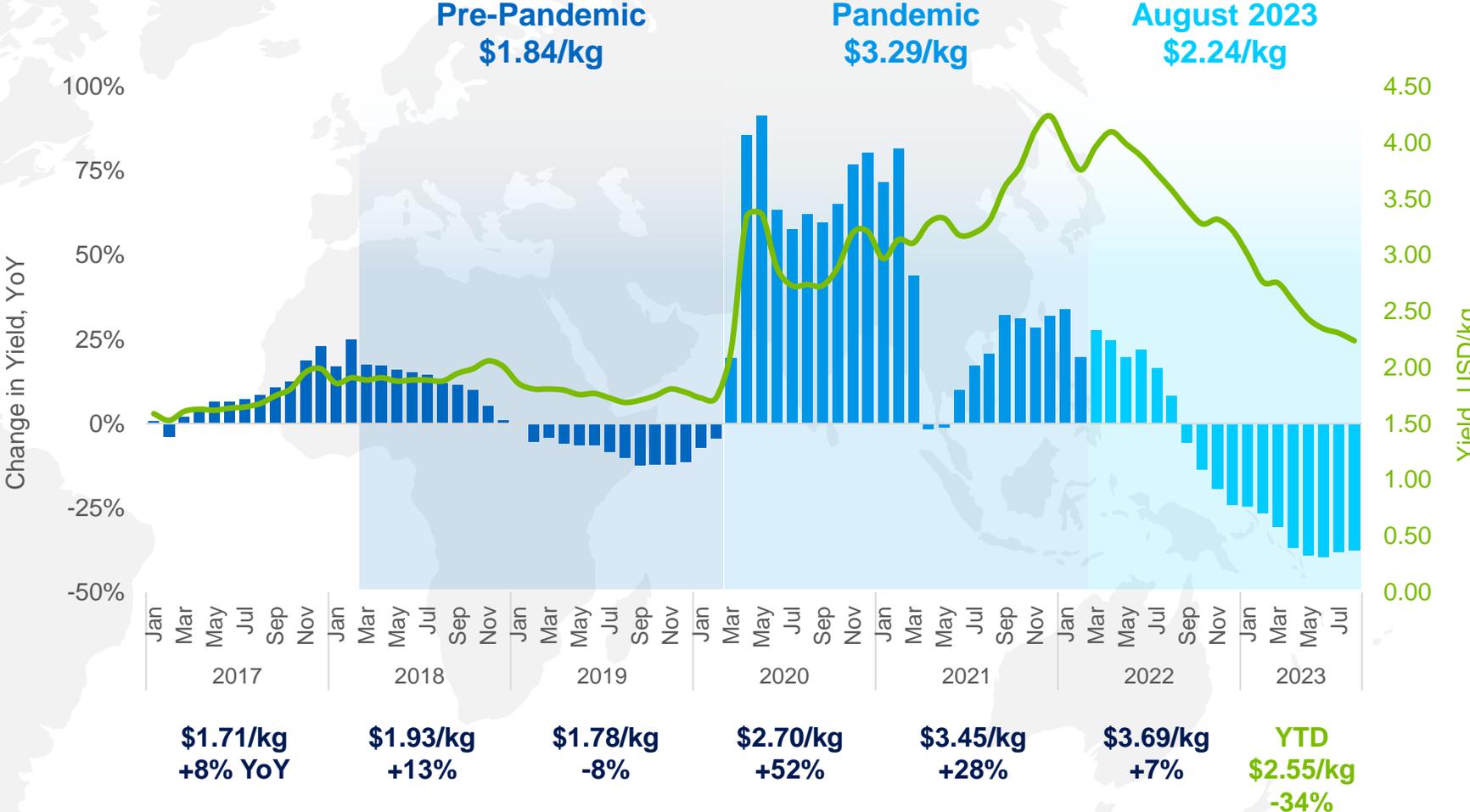
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Global air cargo yields remain elevated

Year to date, global air cargo yields remain

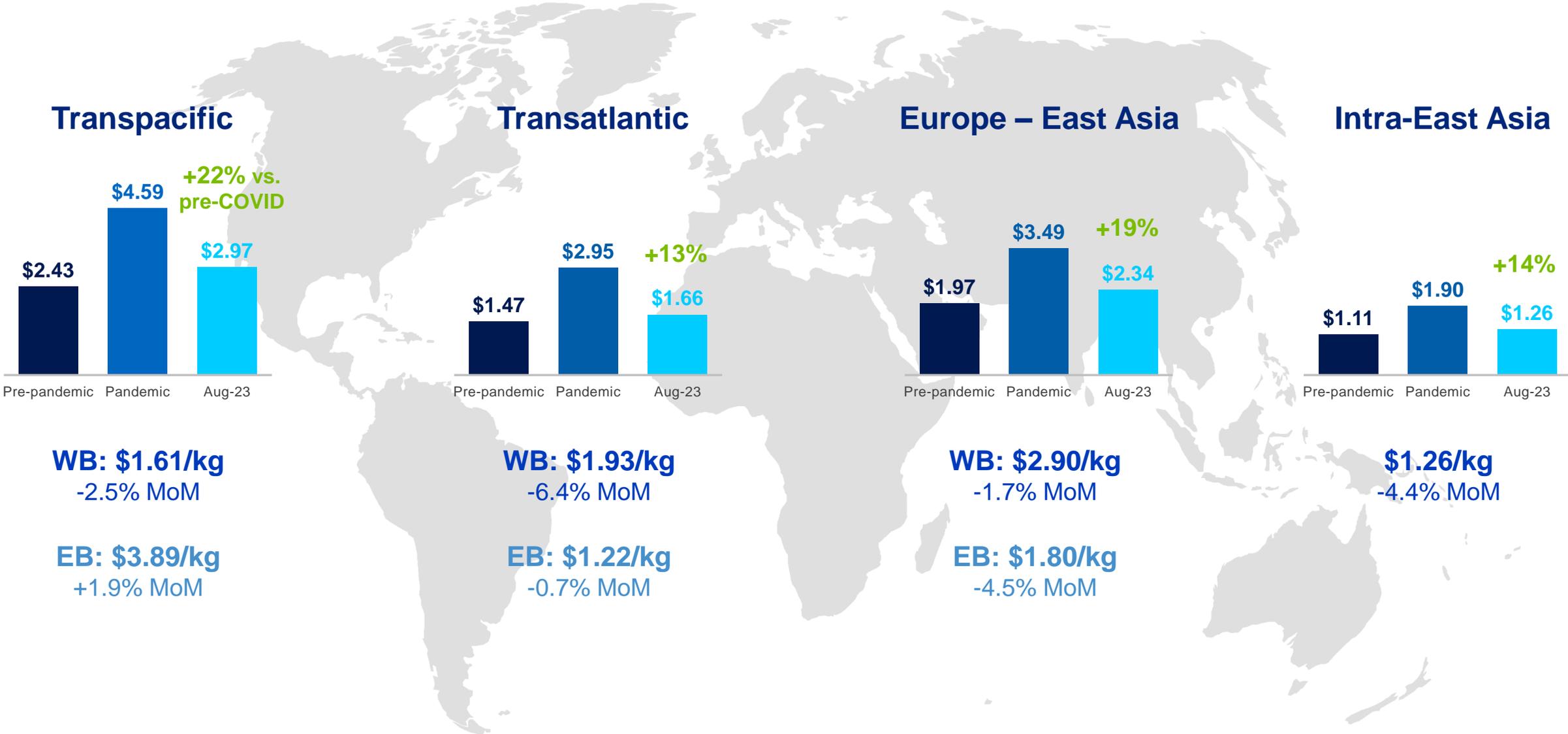
39%

higher than the pre-pandemic average



SOURCE: IATA CargoIS; **Pre-Pandemic** = March 2018 to February 2020 | **Pandemic** = March 2020 to February 2022

Global air cargo yields vary by major flow, but remain elevated



SOURCE: IATA CargoIS; **Pre-Pandemic** = March 2018 to February 2020 | **Pandemic** = March 2020 to February 2022

Despite current challenges, the world air cargo market is resilient

Air cargo has grown an average of

2.7%

per year since the global financial crisis

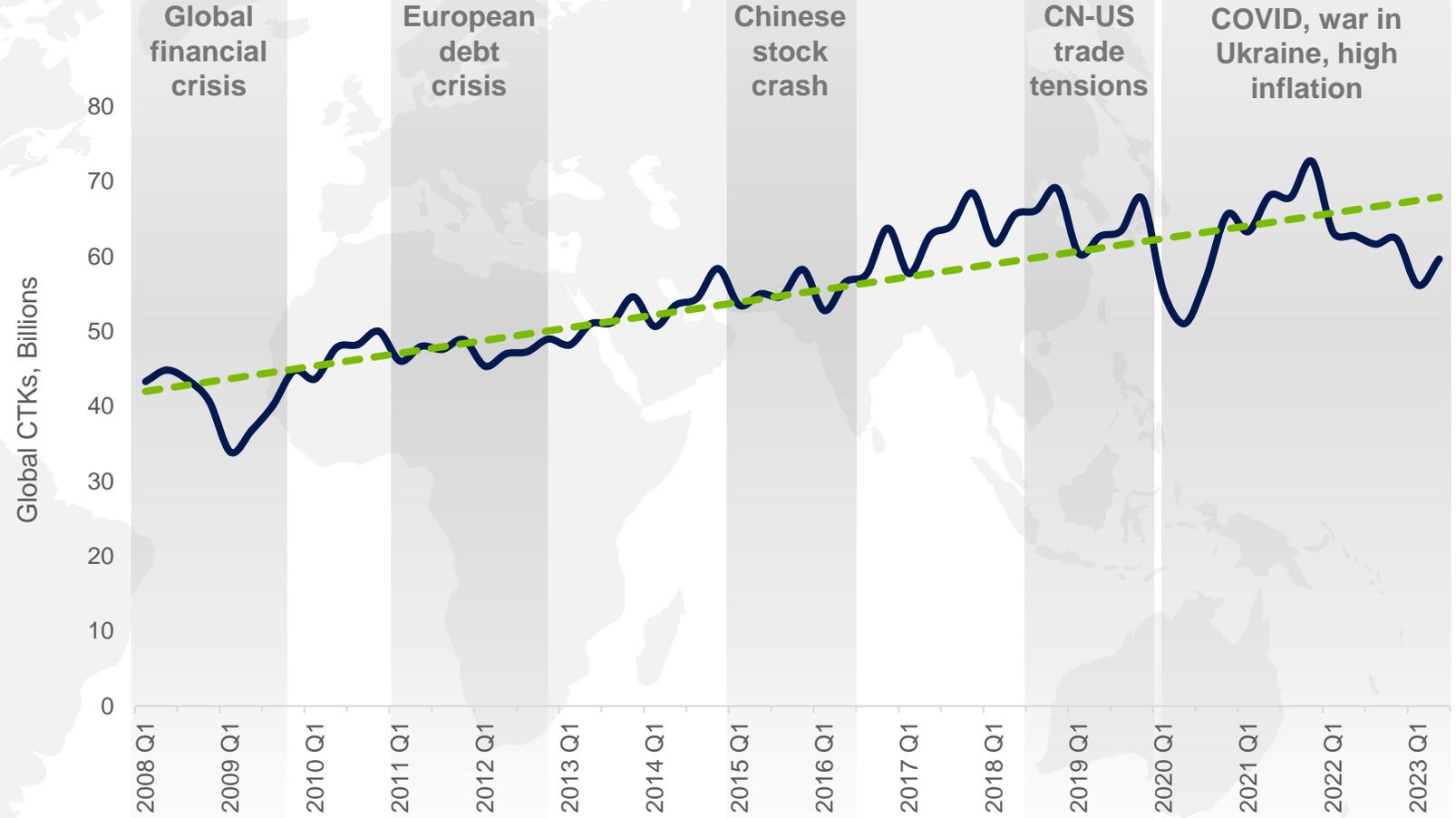




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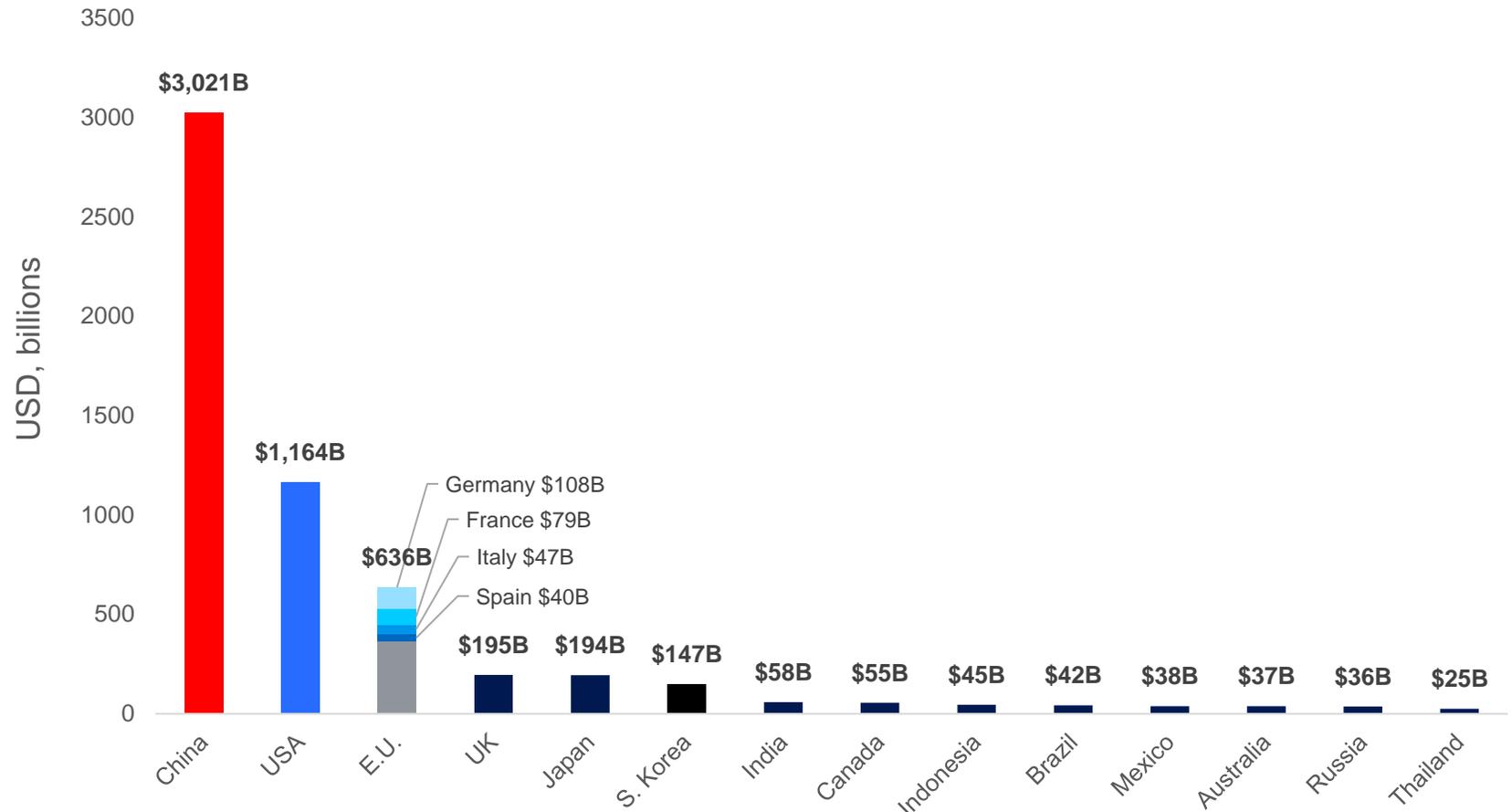
E-commerce market will continue to provide a boost to air cargo growth

China is the world's

#1

largest e-commerce market in 2023

2023 projected E-commerce revenues



Supply chain risks impact the US-China air cargo market

Geopolitical tensions, natural disasters, cyberattacks, and pandemics are elevating risk.

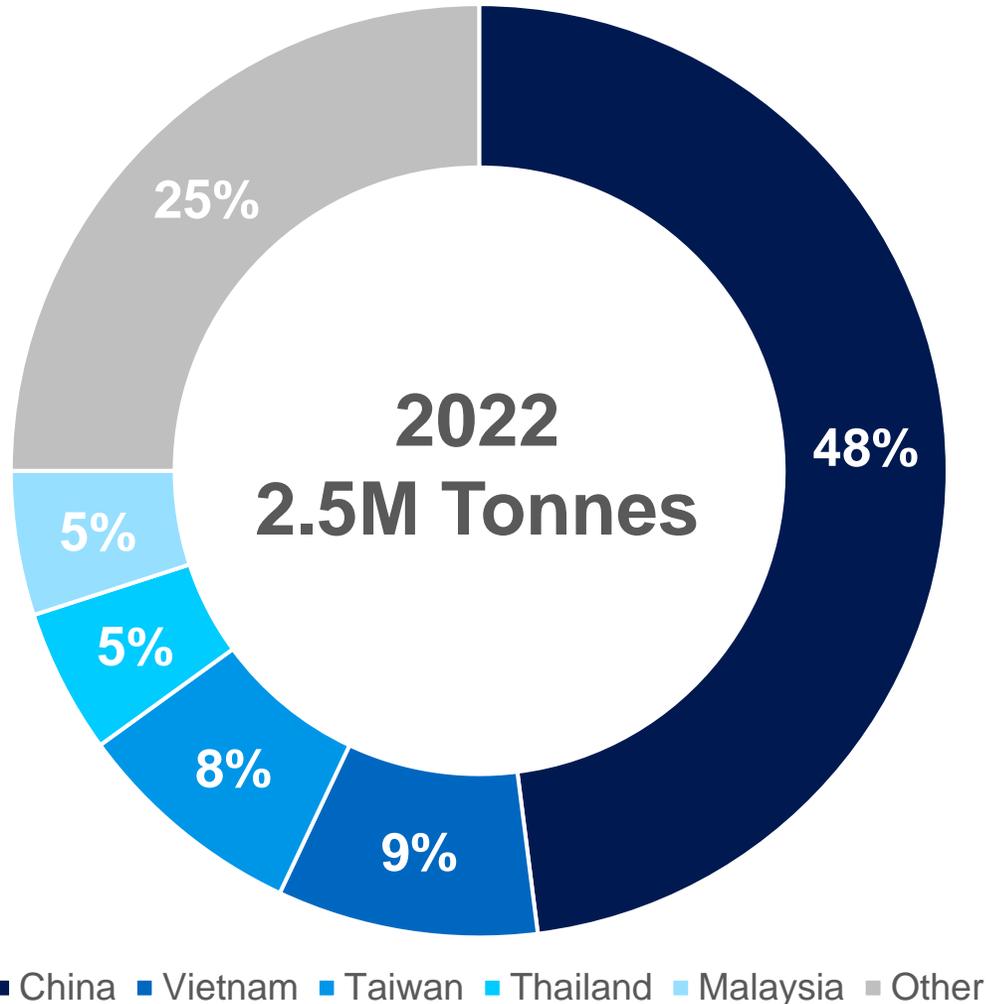
Shocks that disrupt supply chains for a month or more occur every **3.7 years** on average.

McKinsey August 2020



Diversifying supply chain strategies boosting air cargo from several East Asian countries

Share of 2022 East Asia to US Air Cargo Tonnage, %



SOURCE: US Census Bureau FT920.; low value shipments not included

Air Cargo Tonnage to US, 2017 vs. 2022





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

3.0%
World trade



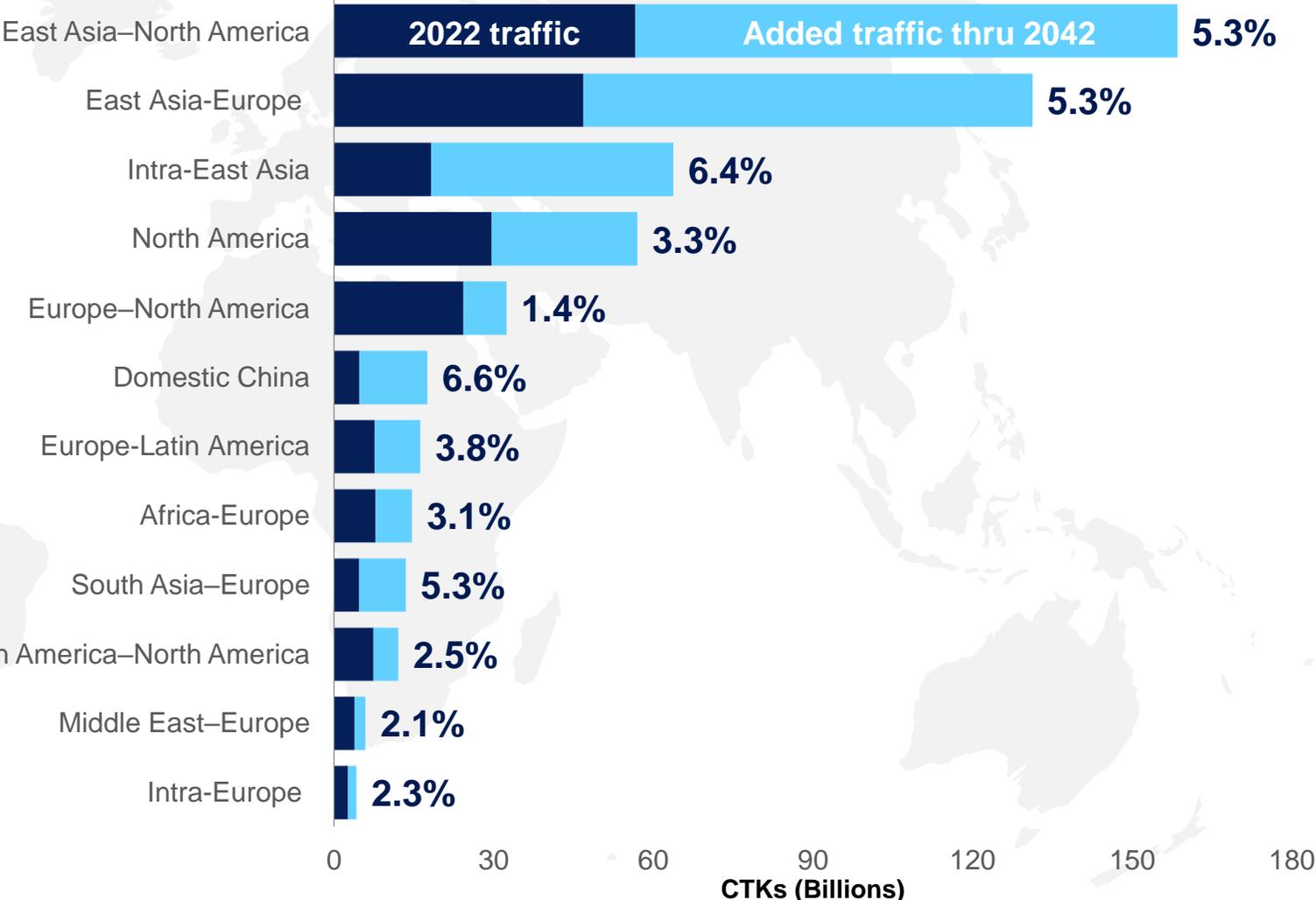
2.6%
World GDP



4.5%
Cargo traffic



3.2%
Freighter fleet



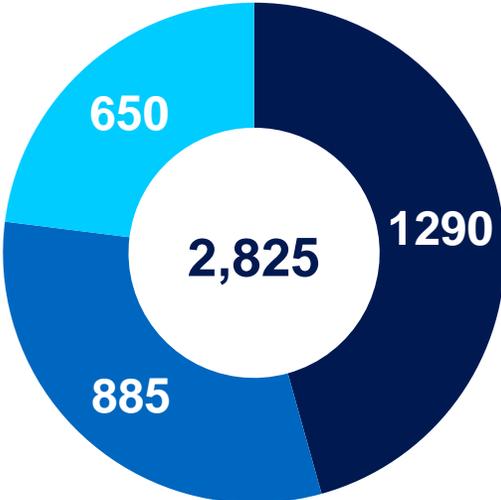
SOURCES: Boeing Commercial Market Outlook June 2023, Forecast period 2023-2042; S&P Global

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World air cargo market to demand over 2,800 freighters by 2042



Deliveries 2023-2042

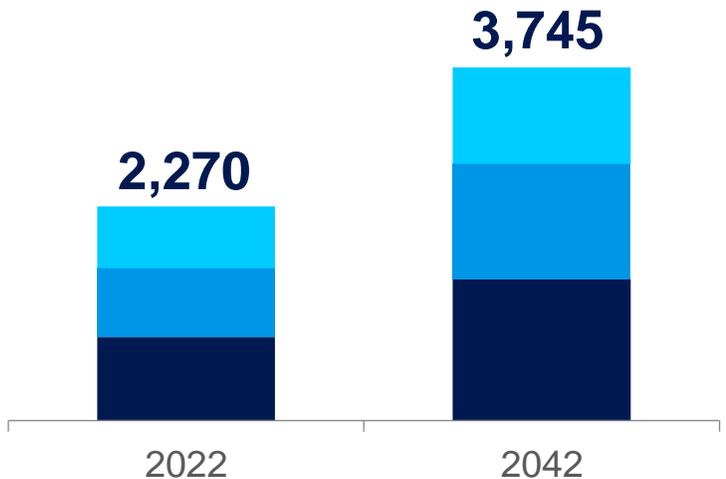


Large widebody

Medium widebody

Standard body

Global Freighter Fleet



SOURCES: Boeing Commercial Market Outlook June 2023, Forecast period 2023-2042; S&P Global

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Summary



- Revenues and capacity remain above pre-pandemic levels despite economic headwinds impacting traffic
- Air cargo growth expected to return in 2024
- Fleet renewal, supply chain diversification and e-commerce growth continue to boost long-term freighter demand
- Over 2,800 new and converted freighters will be needed by 2042

