



Commercial Market Outlook 2022-2041

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The statements contained herein are based on good faith assumptions and are to be used for general information purposes only. These statements do not constitute an offer, promise, warranty or guarantee of performance.

Passenger recovery dynamics: still demand, supply, regulation

Early pandemic framework still holds, drivers shifting

Demand

Passengers

Health

Confidence

Affordability



Supply

Airlines

Workforce

Fleet decisions

Capital



Regulation

Governments

Travel regulation

Sustainability

Infrastructure



Economic outlook uncertainty rising...



Tailwinds

Accumulated savings

Employment / rising wages

Business investment



Headwinds

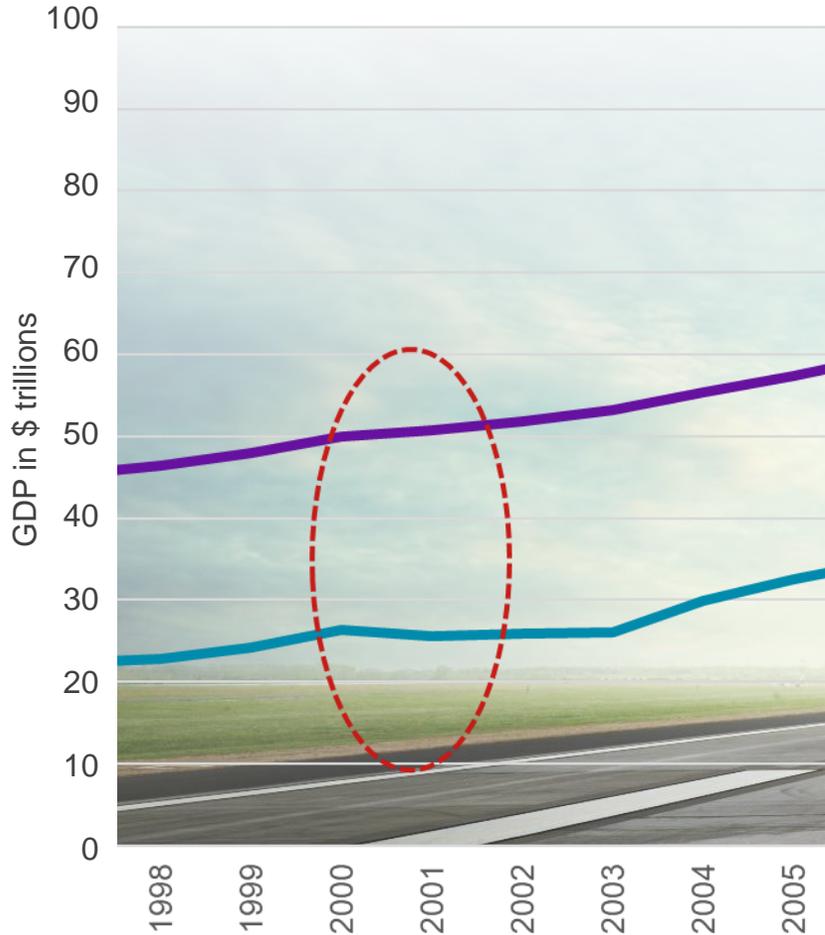
High inflation

Supply chain challenges

Financial market volatility

...but economy not the key constraint on air traffic near-term

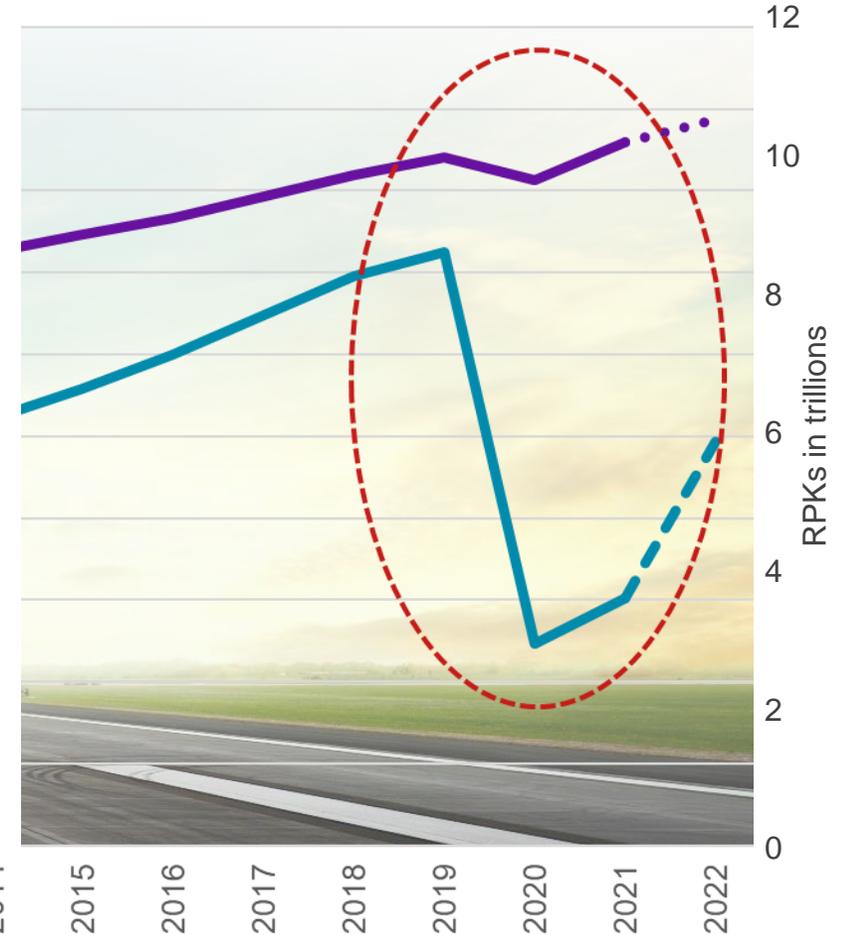
9/11 & dot-com recession



Global Financial Crisis

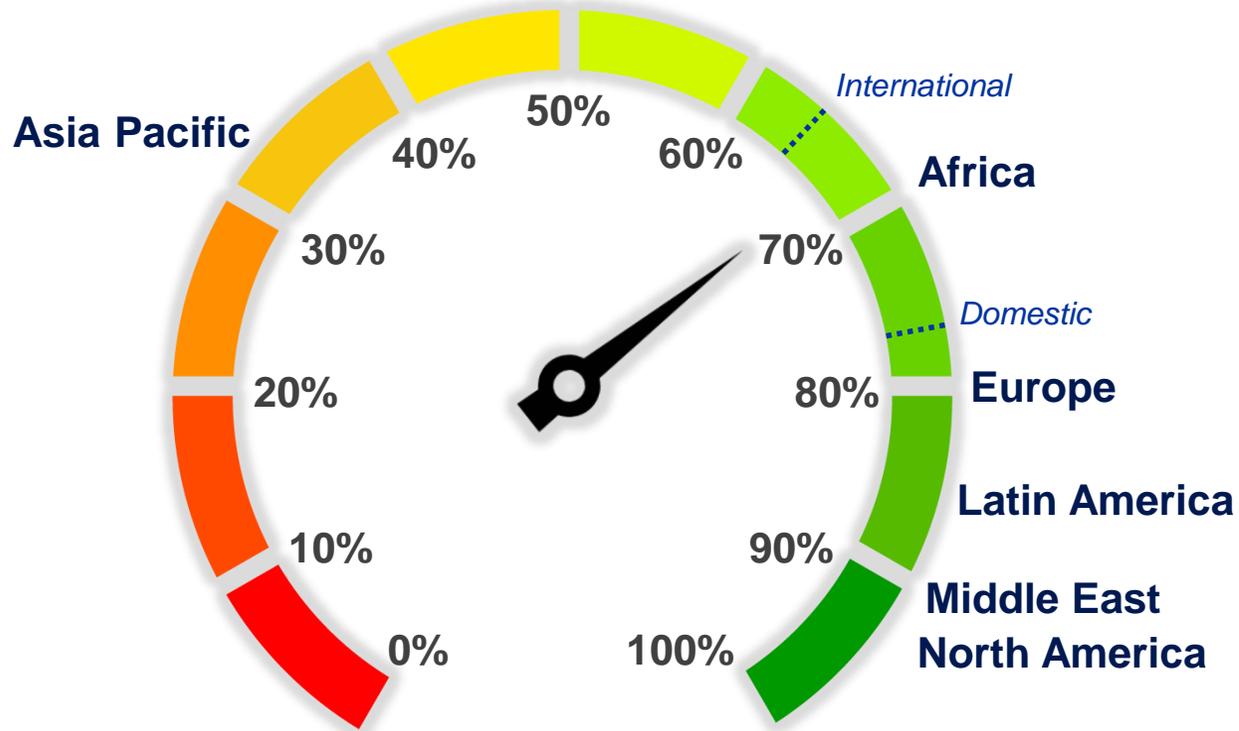


COVID-19 pandemic

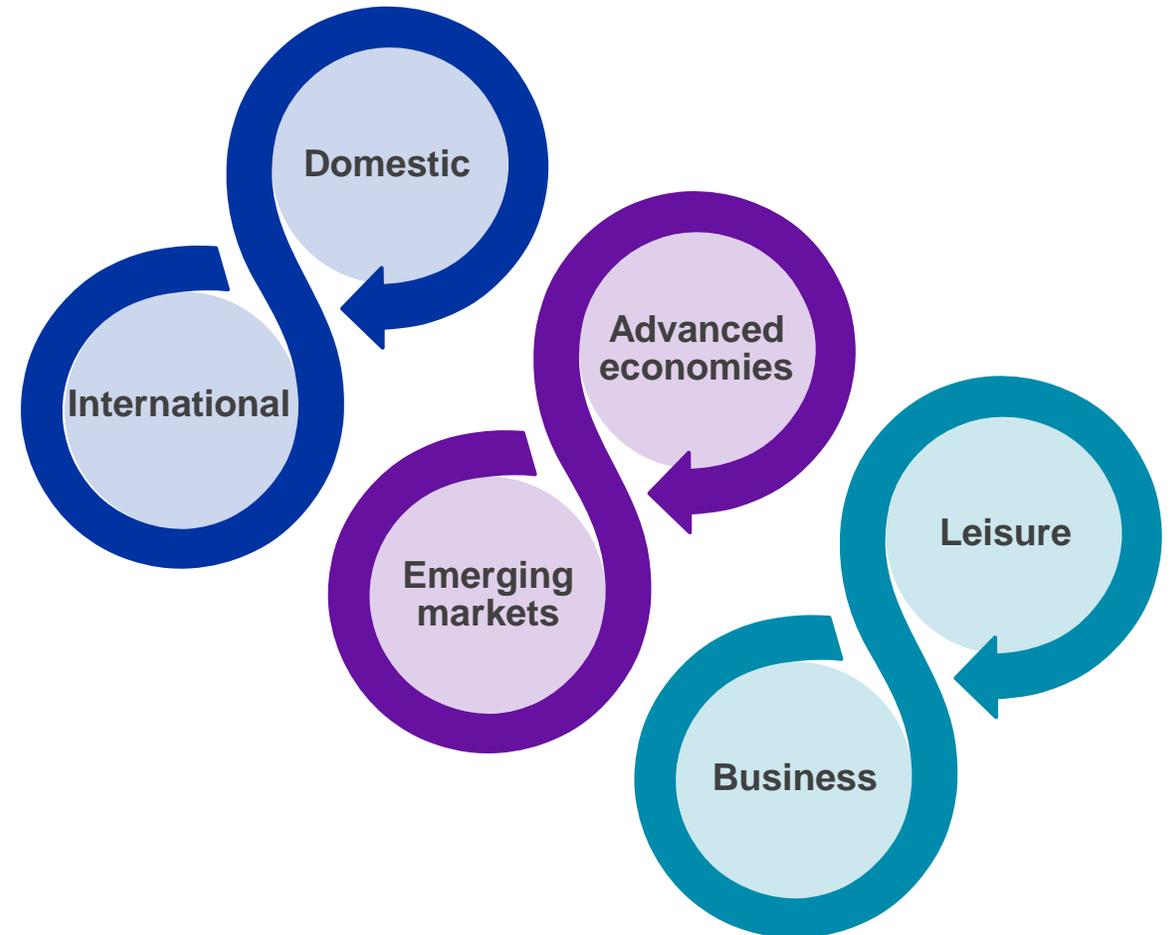


Recovery is multi-speed

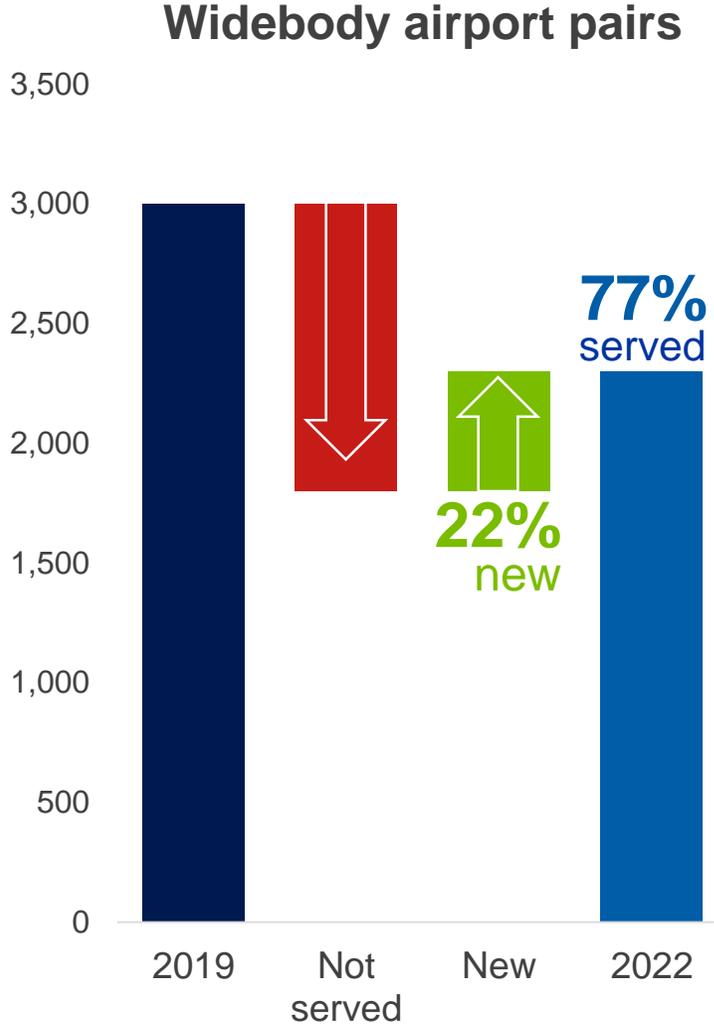
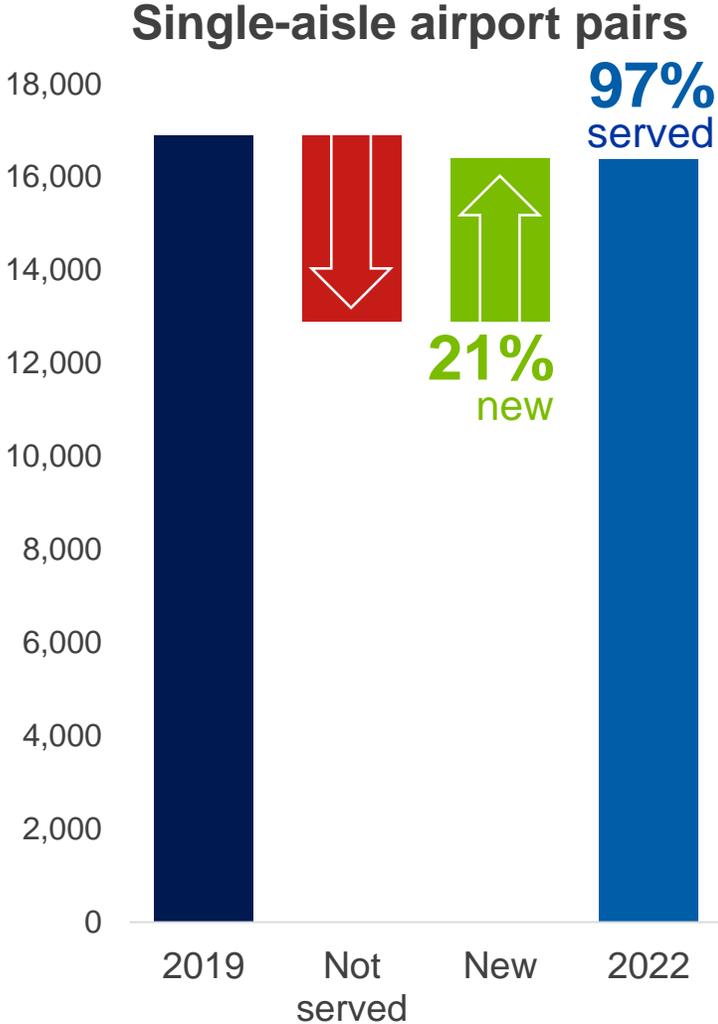
May traffic vs. 2019 levels



Rotating growth sources



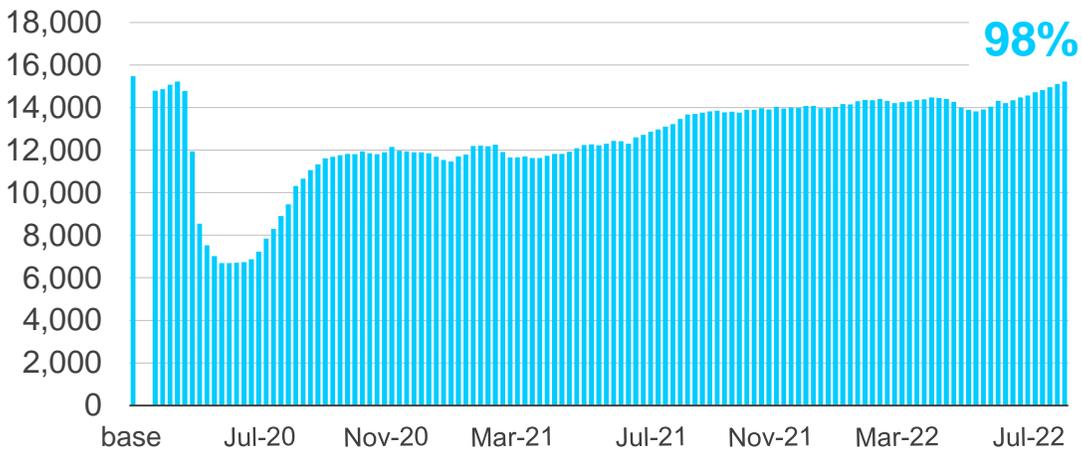
Airlines adapting networks



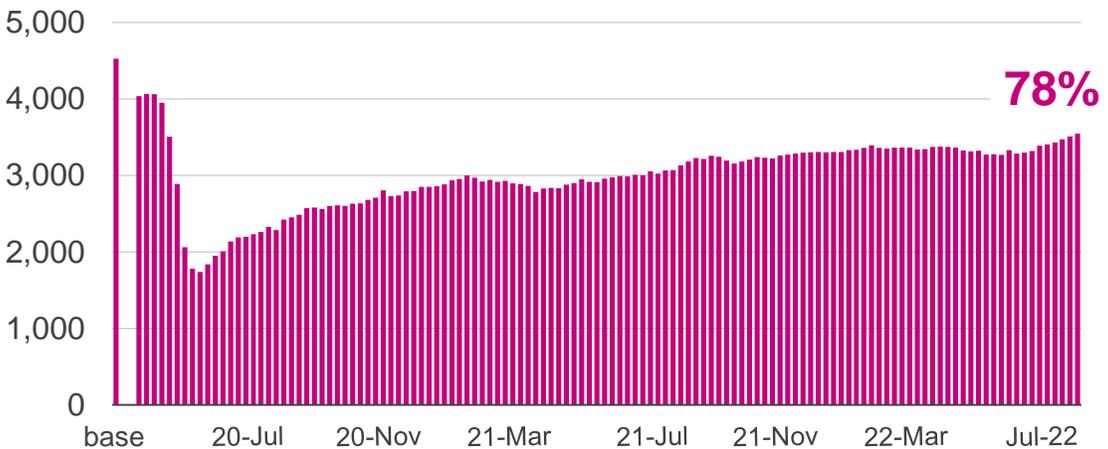
Airline fleets stabilizing, replacement opportunity evident



Passenger single-aisle

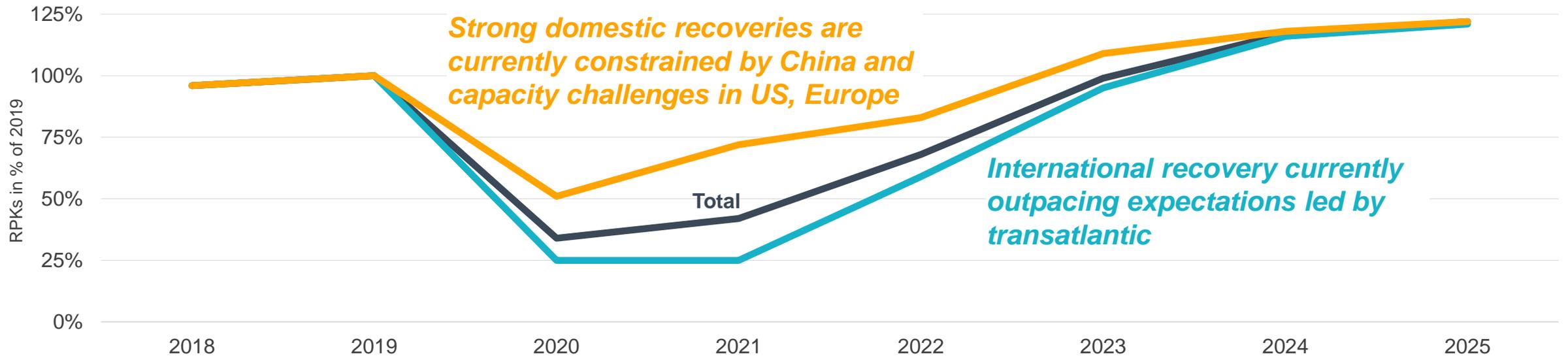


Passenger widebodies



SOURCES: FlightRadar24, Boeing
Data through Week 27 (6/26 - 7/2), normalized with 2019 schedule and FR24 operations

Recovery timeline fundamentally unchanged

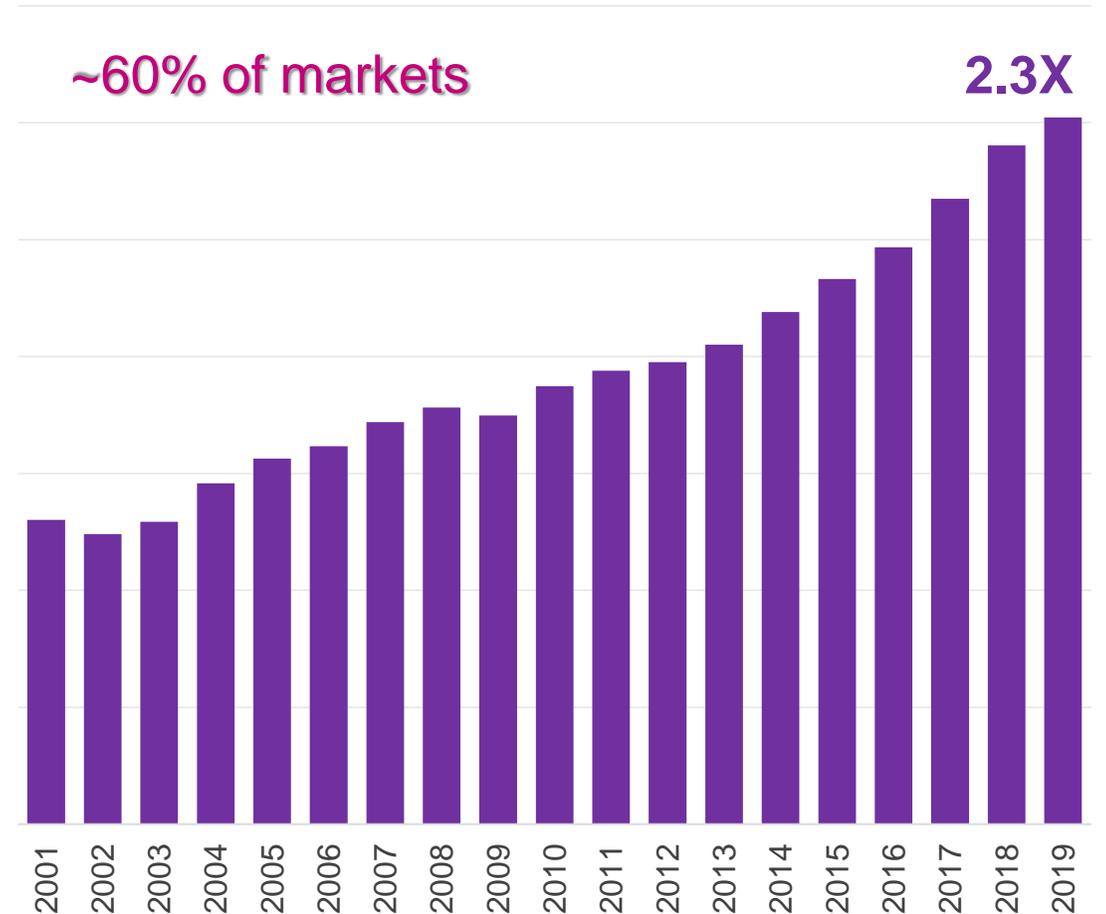


Increasingly competitive airline industry



SOURCE: OAG/Innovata, mainline jets, at least daily round trip service

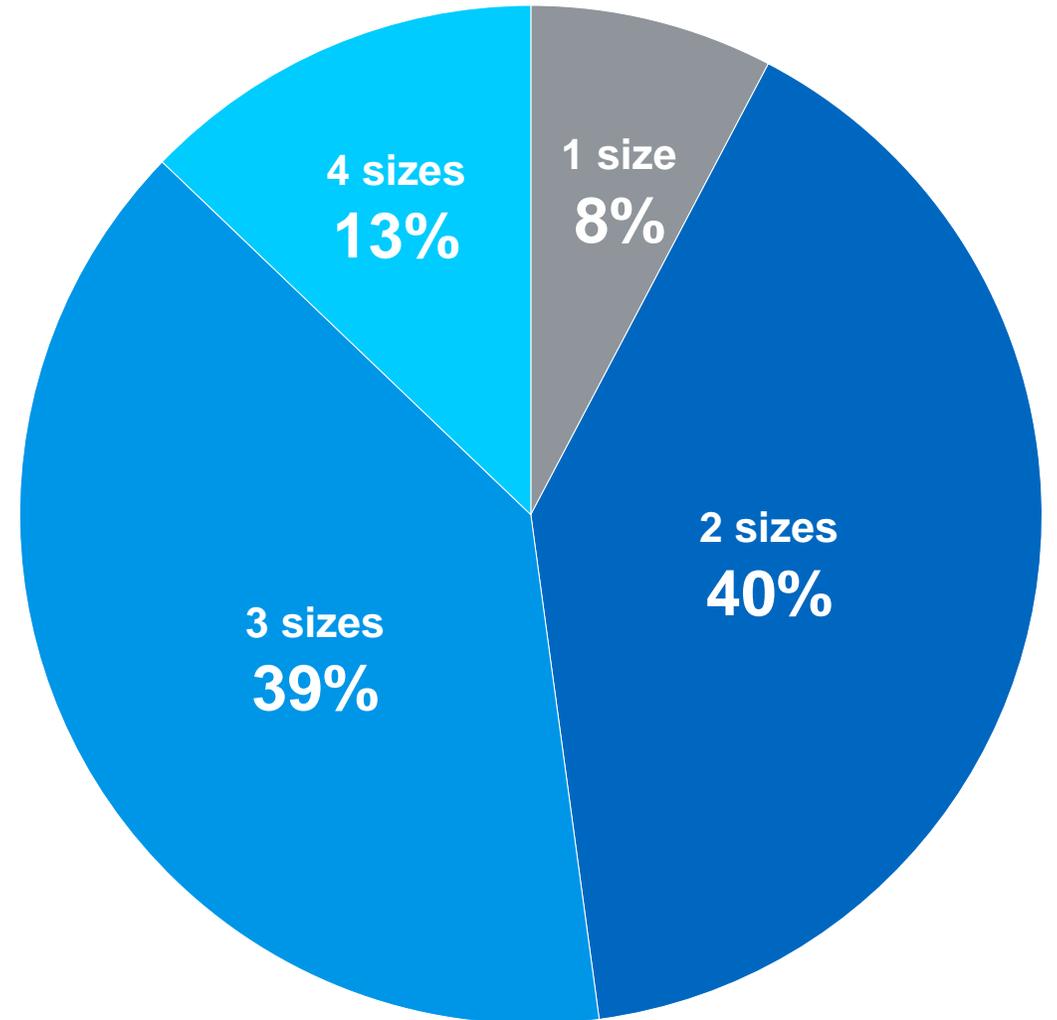
Mainline jet city pairs with daily service and at least two airlines competing



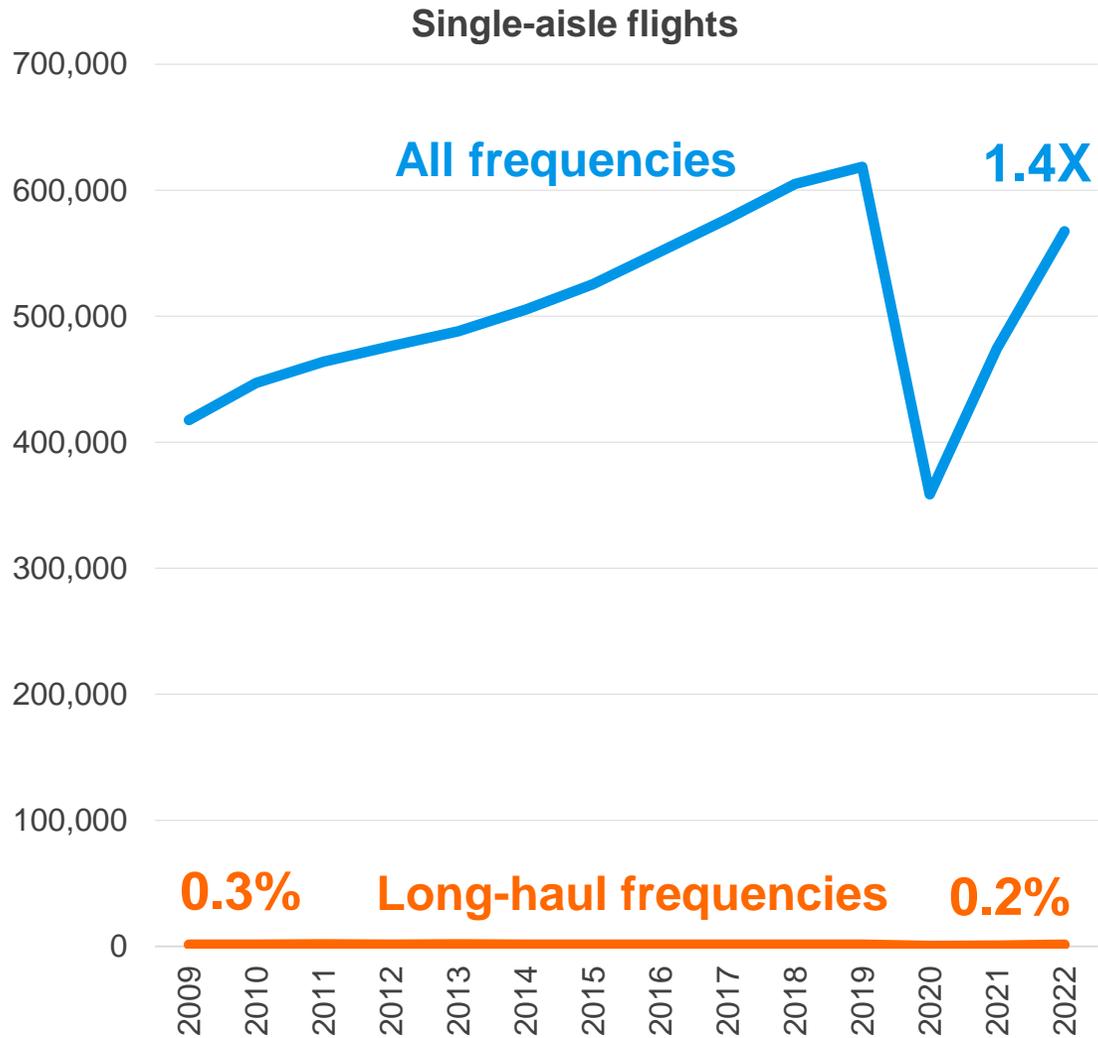
Families are indispensable to single-aisle operators



Airlines groups with fleets of 30 or more single-aisles account for 82% of global single-aisle fleet
SOURCE: Cirium Fleets Analyzer



Long-haul single-aisle: niche markets

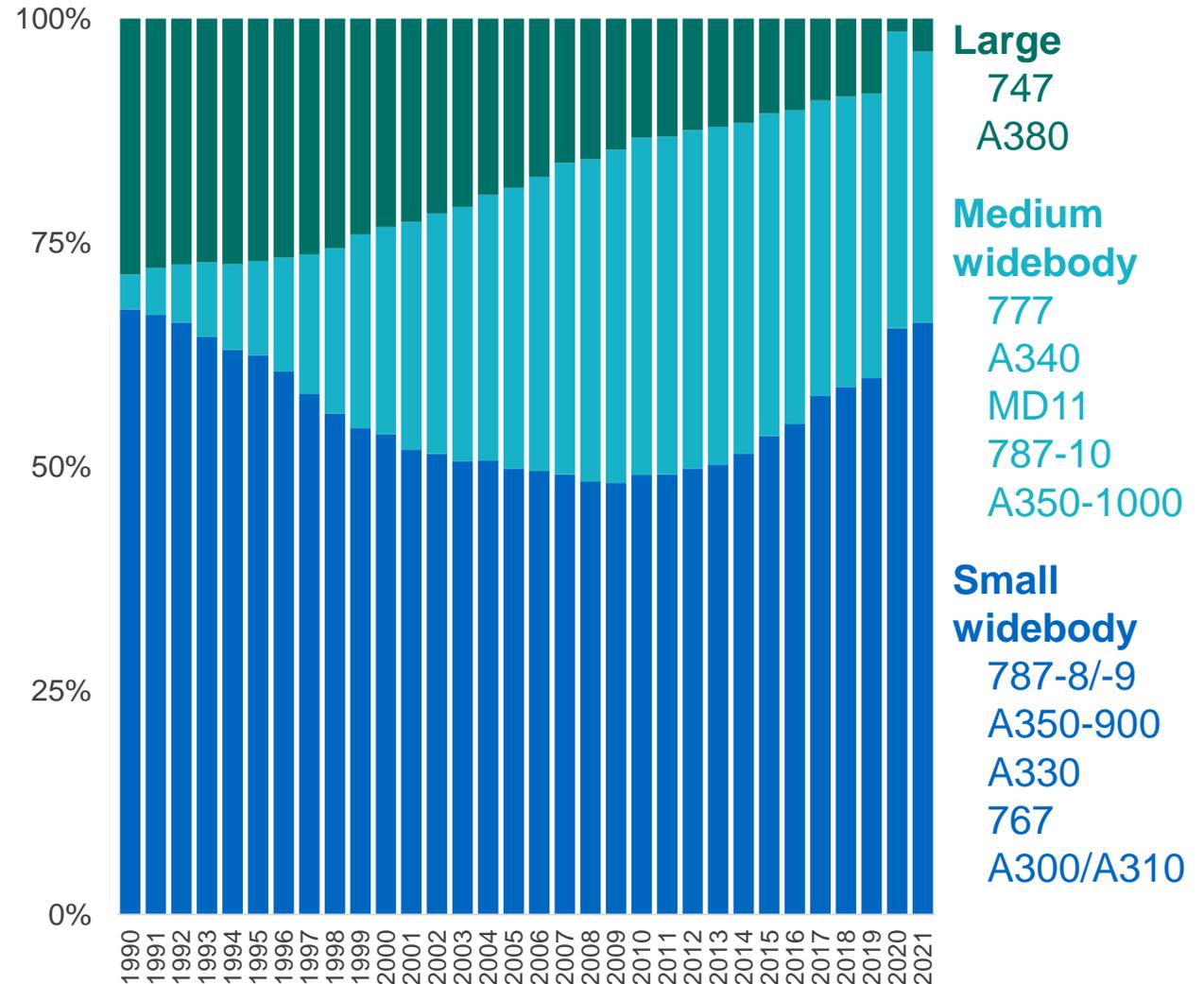


SOURCE: Diiio by Cirium, August schedules. Long-haul >3,000sm



Small and medium widebodies gaining share

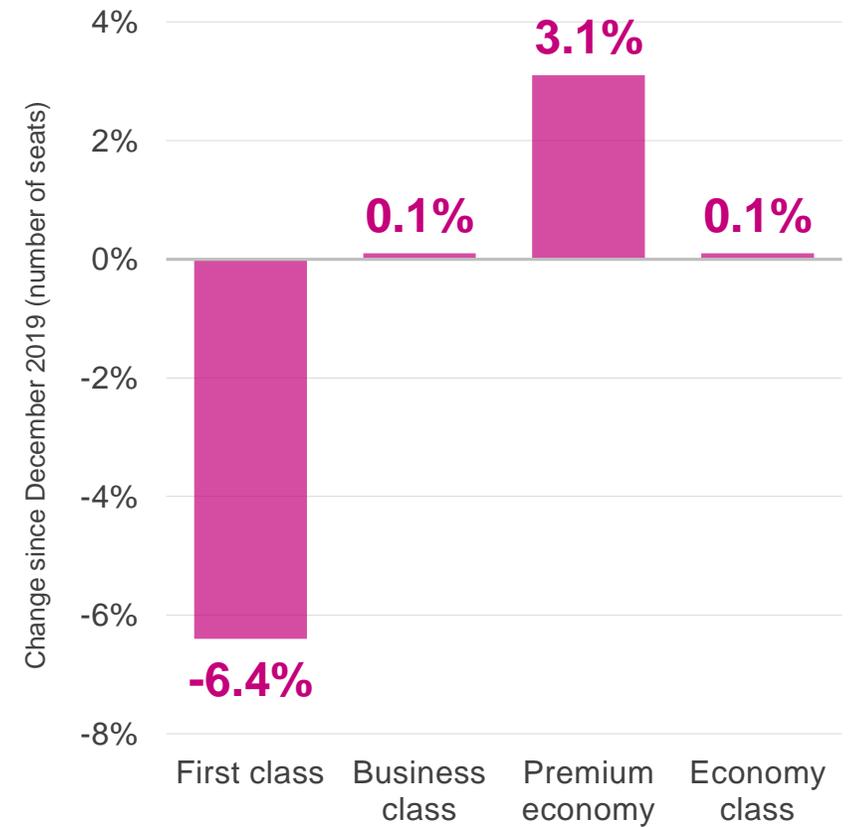
Airplane range less dependent on size



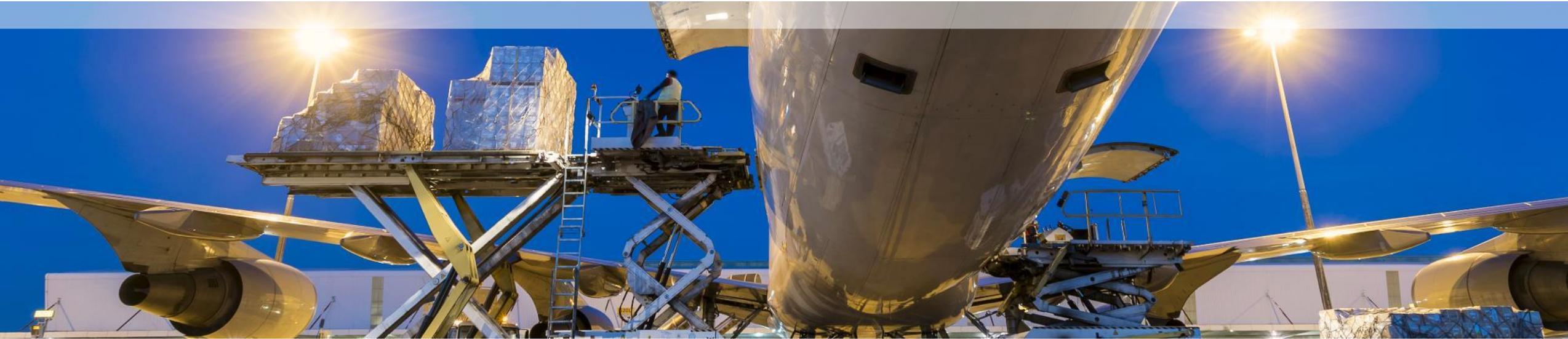


SOURCE: Cirium Fleets Analyzer, widebody airplanes

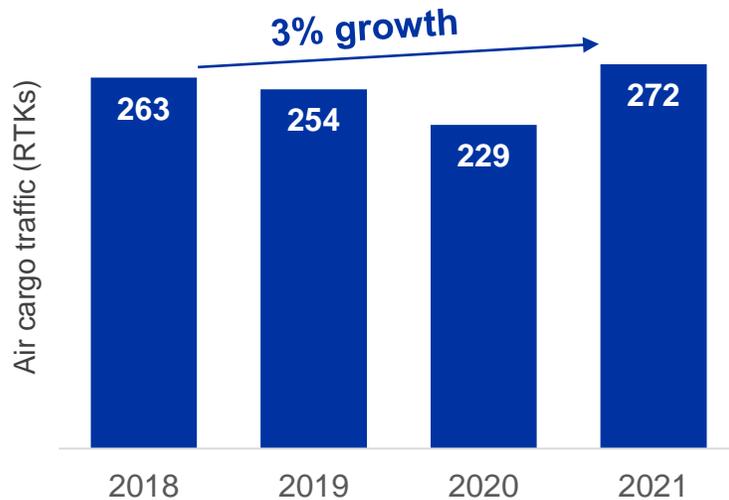
Airlines adjusting cabin mix



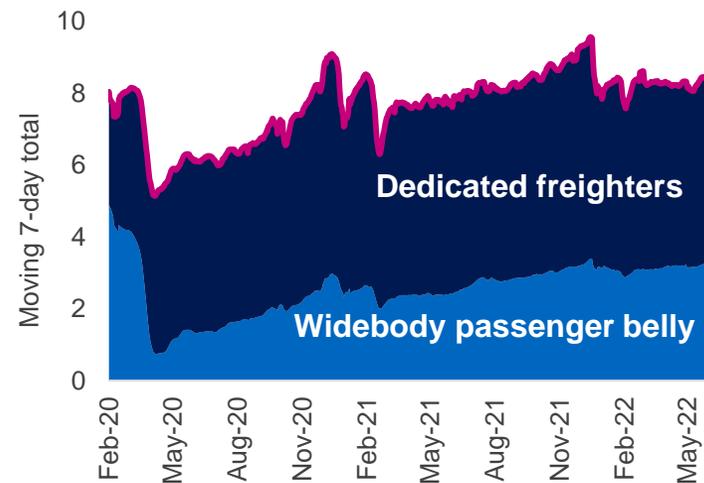
Pandemic disruptions boosting near-term freighter demand...



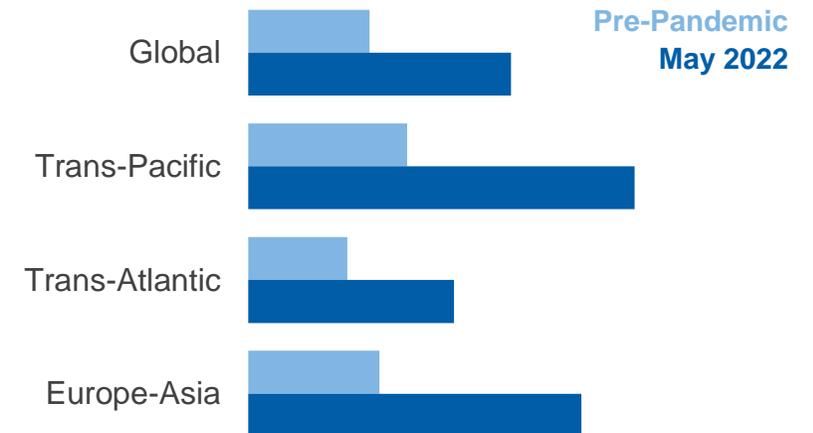
Traffic at historic highs



Belly capacity (ATKs) still down by 1/3



Pricing double



...and structural drivers supporting longer-term freighter demand



20-year forecast: long-term fundamentals remain intact

2.6%

World economy
(GDP)

3.8%

Passenger traffic
(RPK)

4.1%

Cargo traffic
(RTK)

2.8%

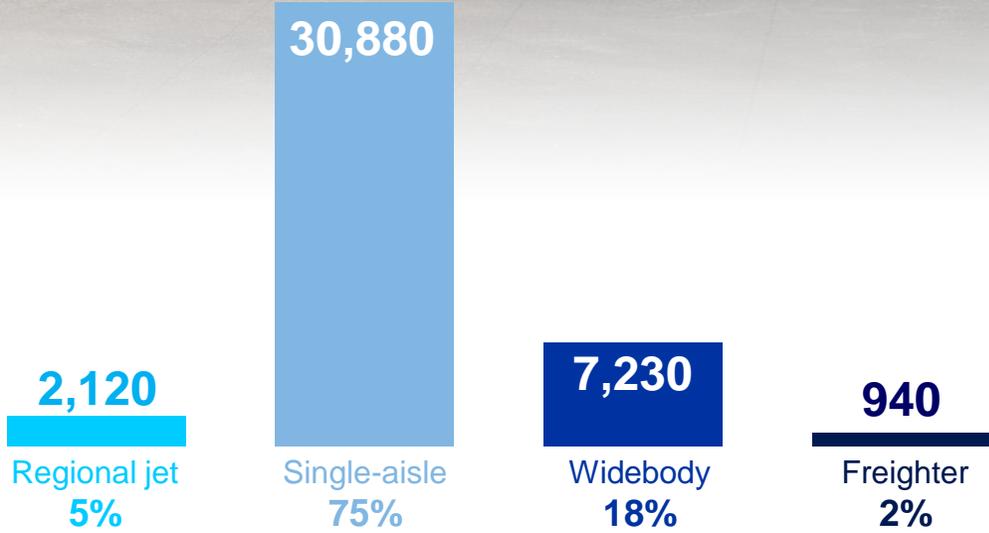
Fleet growth
(jets)



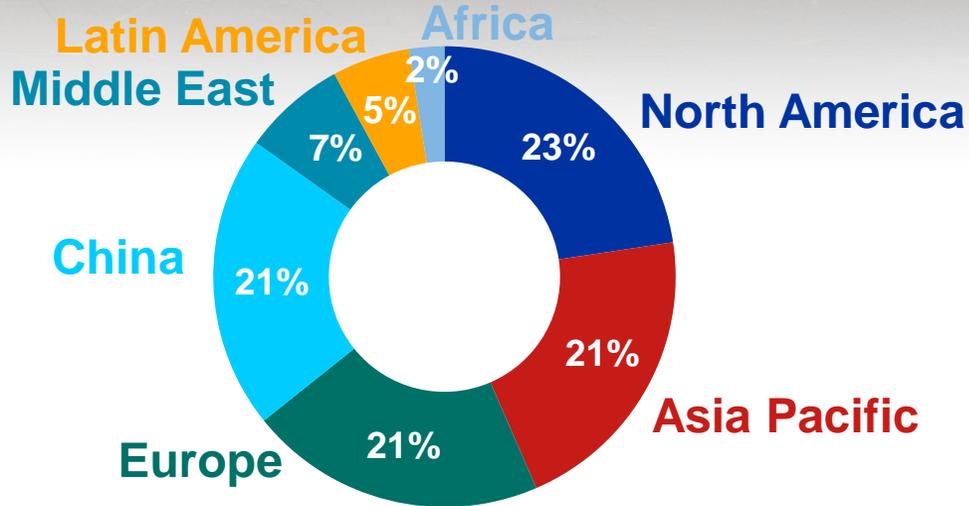
Airlines will need 41,170 new airplanes over 20 years



By type



By region

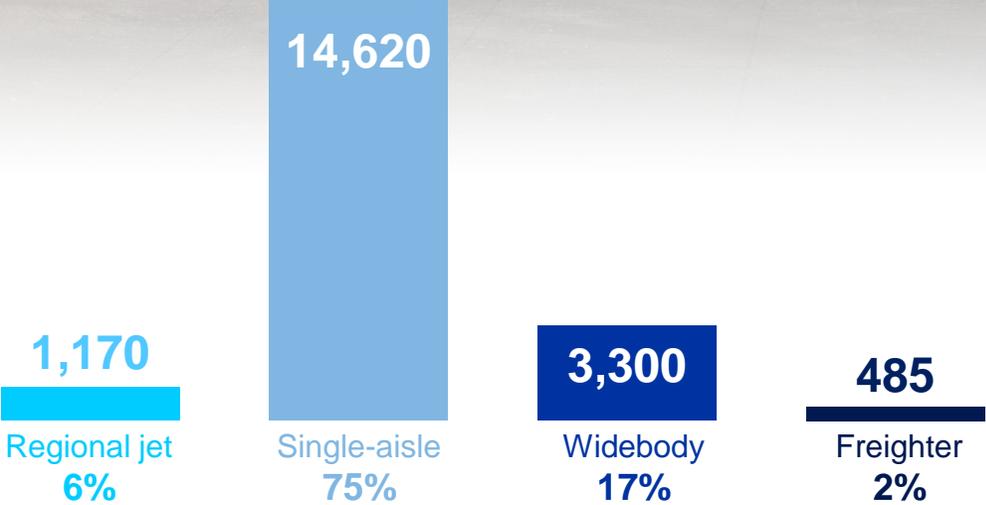


Forecast period 2022-2041, Asia Pacific does not include China

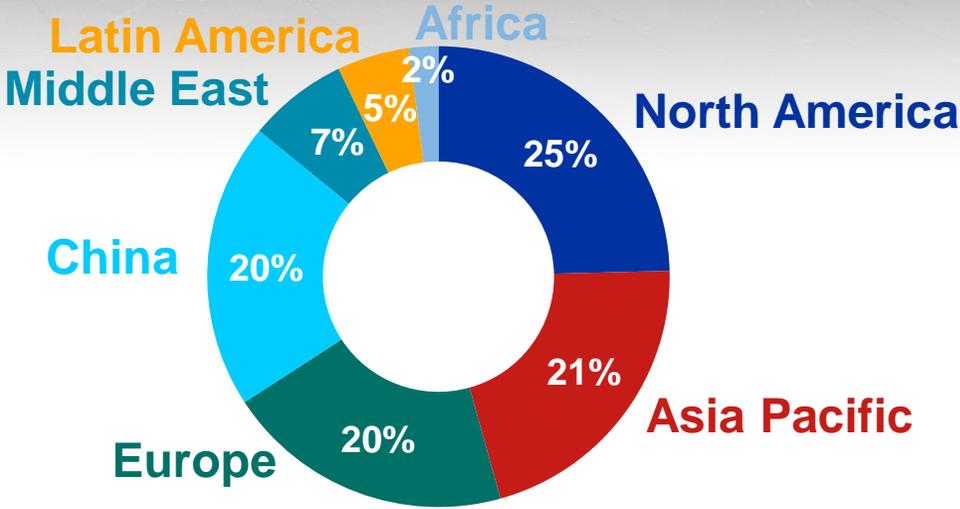
Airlines will need 19,575 new airplanes over 10 years



By type

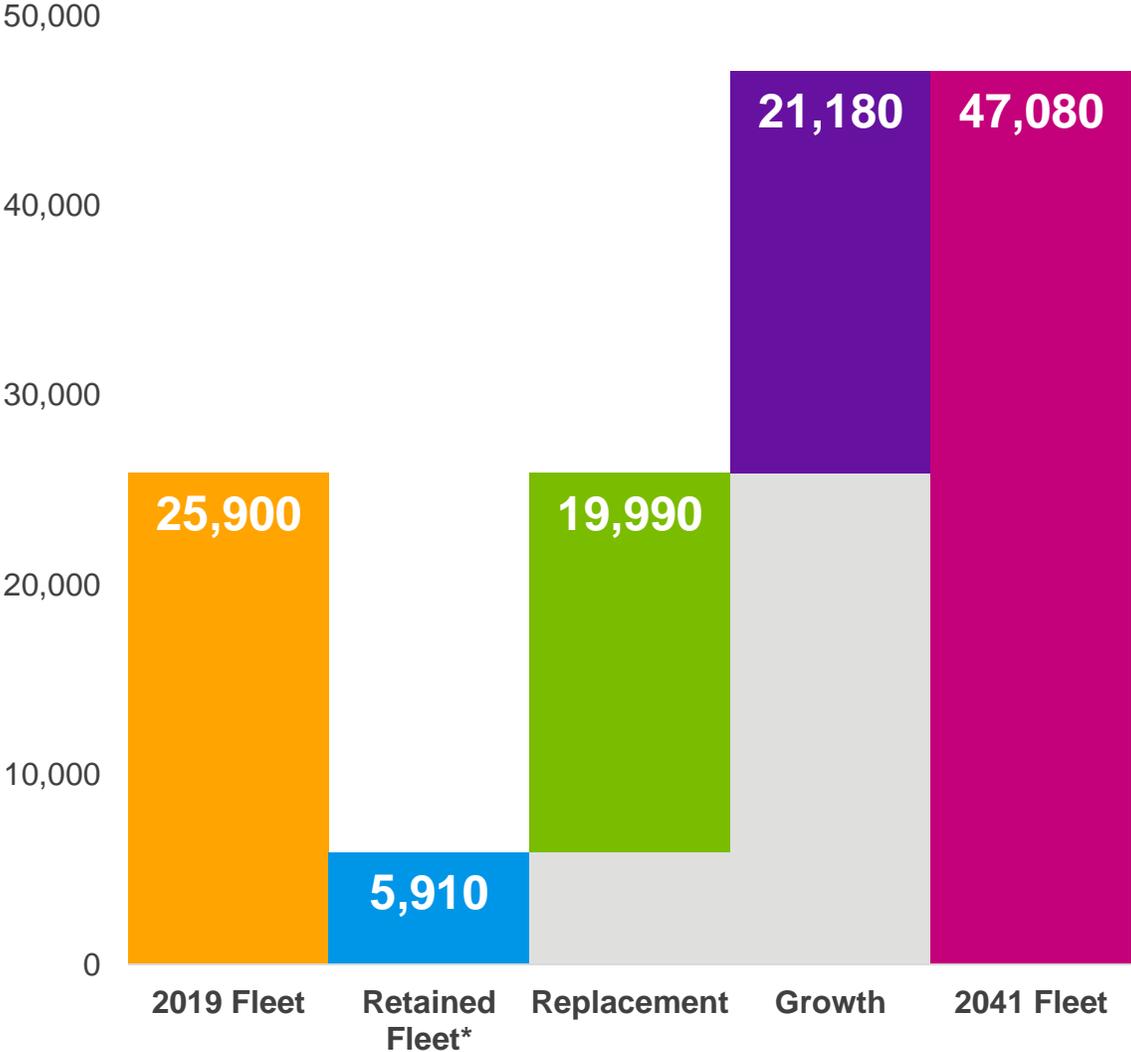


By region



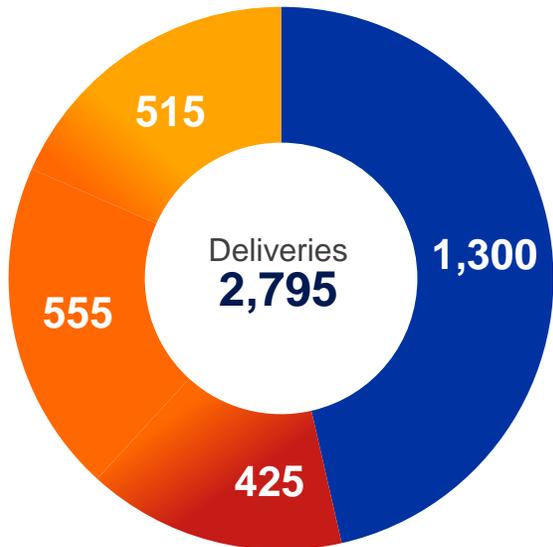
Forecast period 2022-2041, Asia Pacific does not include China

Global fleet will nearly double; half of deliveries for replacement

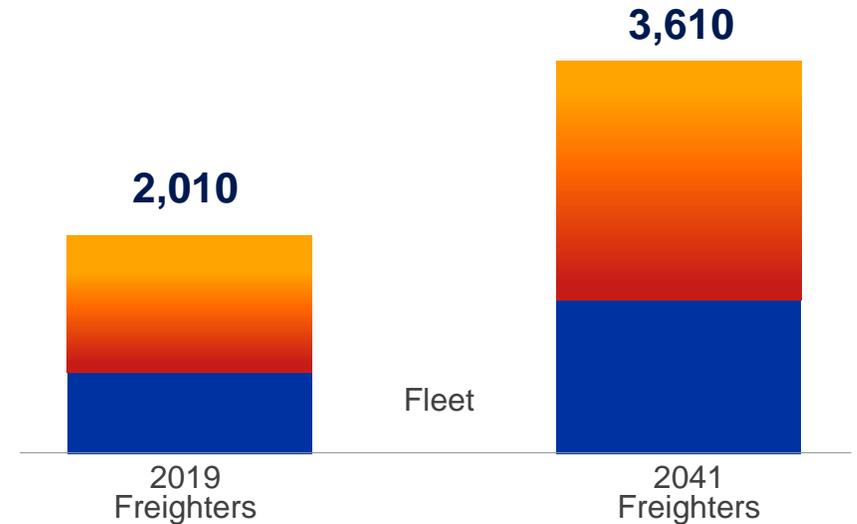


*Retained fleet includes 2020-21 deliveries

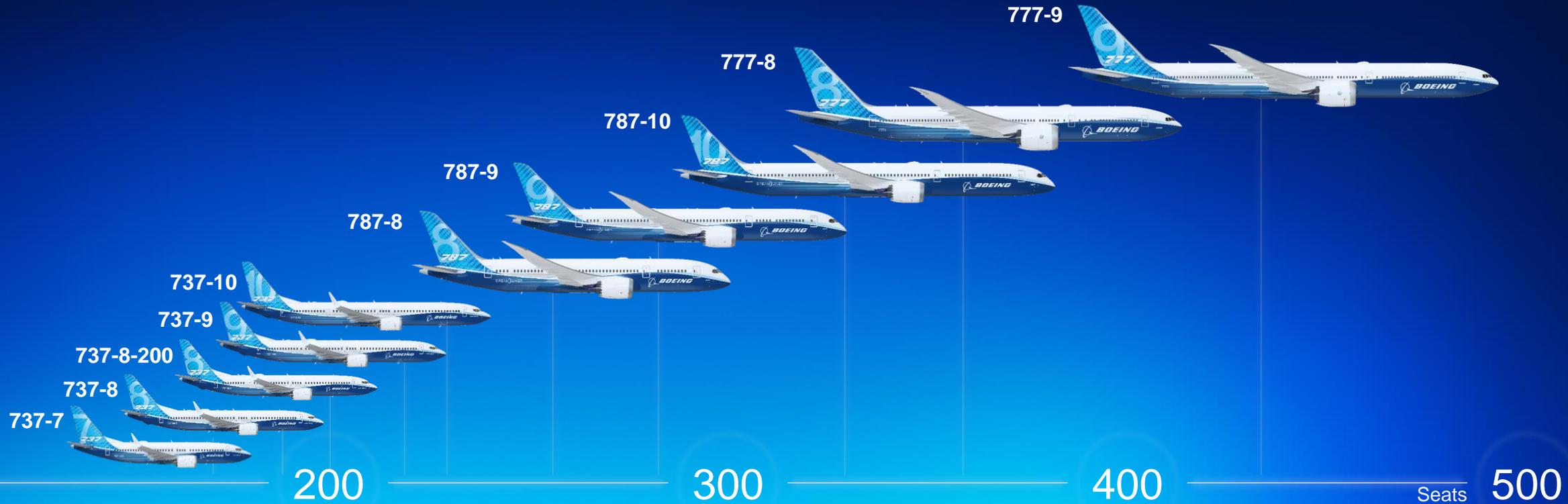
Freighter fleet to grow 80% by 2041



- New large widebodies
- Widebody conversions
- New medium widebodies
- Standard-body conversions



The most versatile and efficient aircraft family



737

the most versatile
single-aisle family

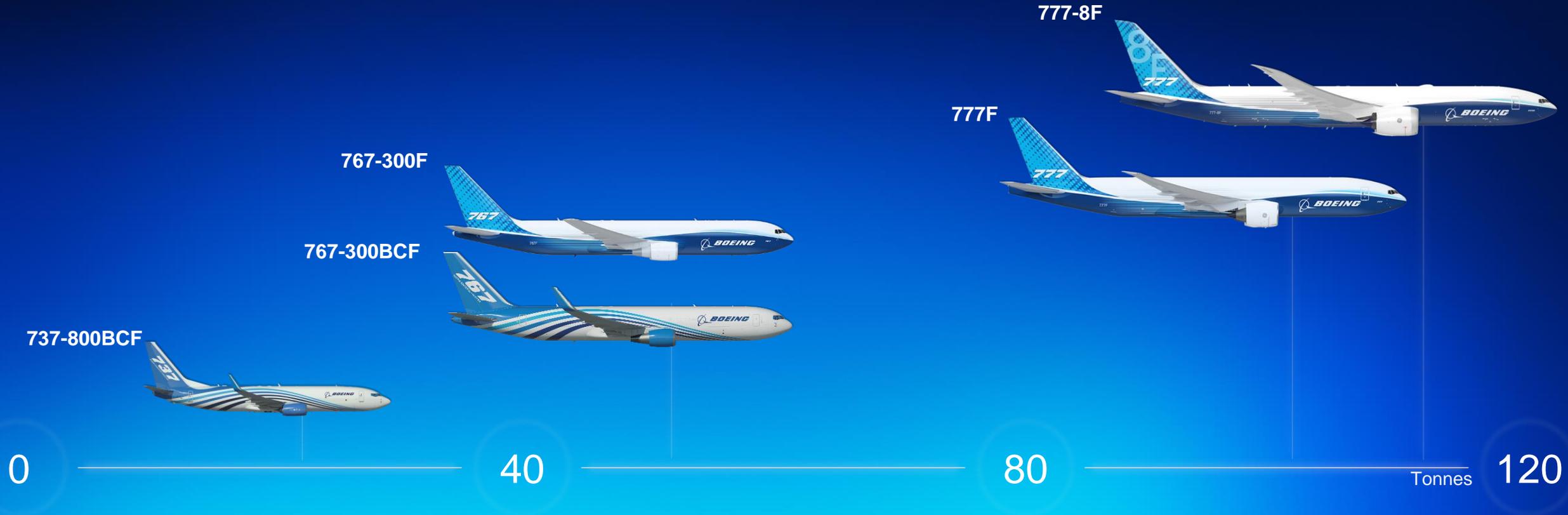
787

the only complete
widebody family

777X

the next long-haul
market leader

Boeing freighters are proven and preferred



Payload and range for every market

Industry-leading reliability and performance

Most sustainable and most capable

Decarbonizing aviation



**Fleet
Renewal**

**Operational
Efficiency**

**Renewable
Energy**

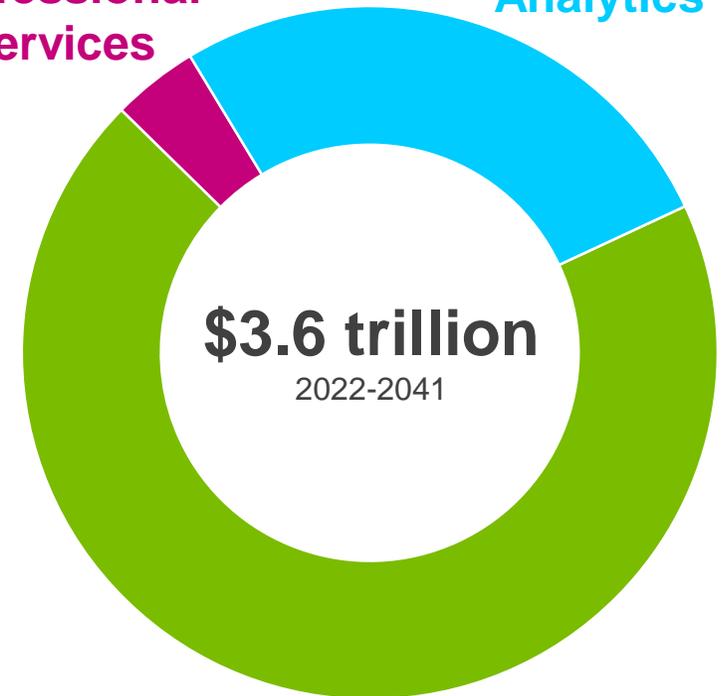
**Advanced
Technology**



Commercial Services Market Outlook

Training & Professional Services

Digital Solutions & Analytics



Maintenance, Repair, Overhaul & Modifications



Global & Regional Outlook

Global

Overview



41,170
Deliveries



3.8%
Traffic Growth



2,111K
Personnel Demand



2.8%
Fleet Growth



2.6%
GDP Growth

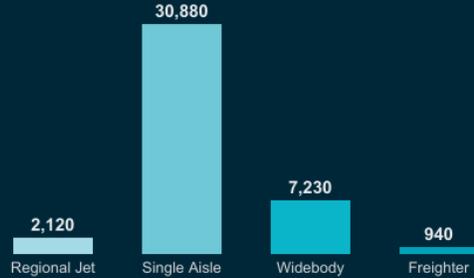


\$3,615B
Services Market Value



Select Region

- Global
- Africa
- China
- Europe
- Latin America
- Middle East
- North America
- Northeast Asia
- Oceania
- South Asia
- Southeast Asia



Freighter
Widebody
Single Aisle
Regional Jet

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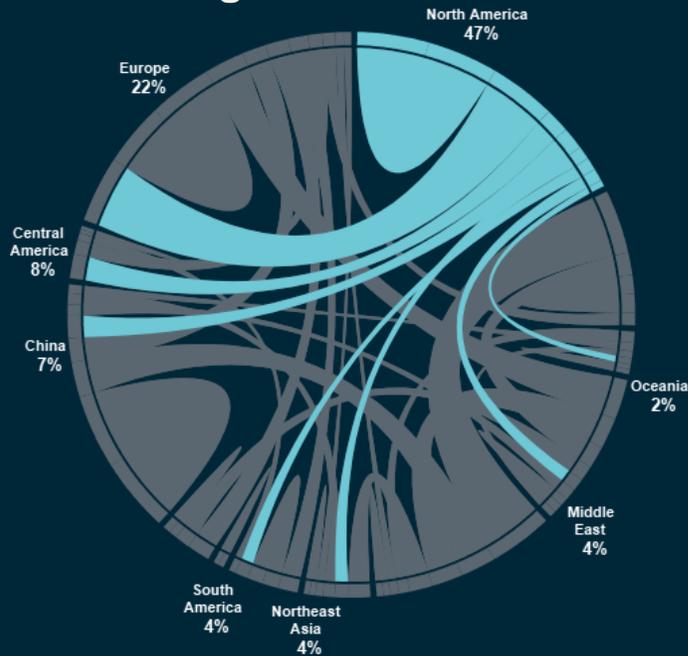
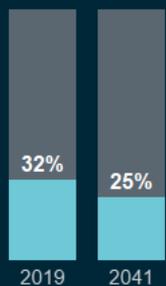


Regional Passenger Traffic Growth

Region: North A...
Year: 2041



North America Share of global traffic



Air Cargo Outlook

Air Cargo



Overview



2,795
Freighter Delivery Units



940
New Widebody Deliveries



1,855
Conversions



4.1%
Air Cargo Growth



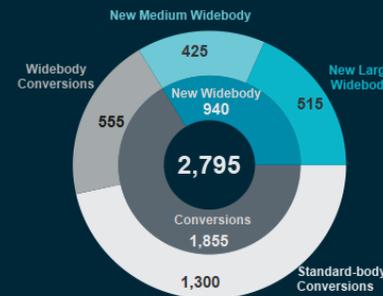
2.7%
Freighter Fleet Growth



2.8%
World Trade Growth



Freighter Delivery Units



Total Freighter Fleet



Large Widebody
Medium Widebody
Standard Body

