



Commercial Market Overview

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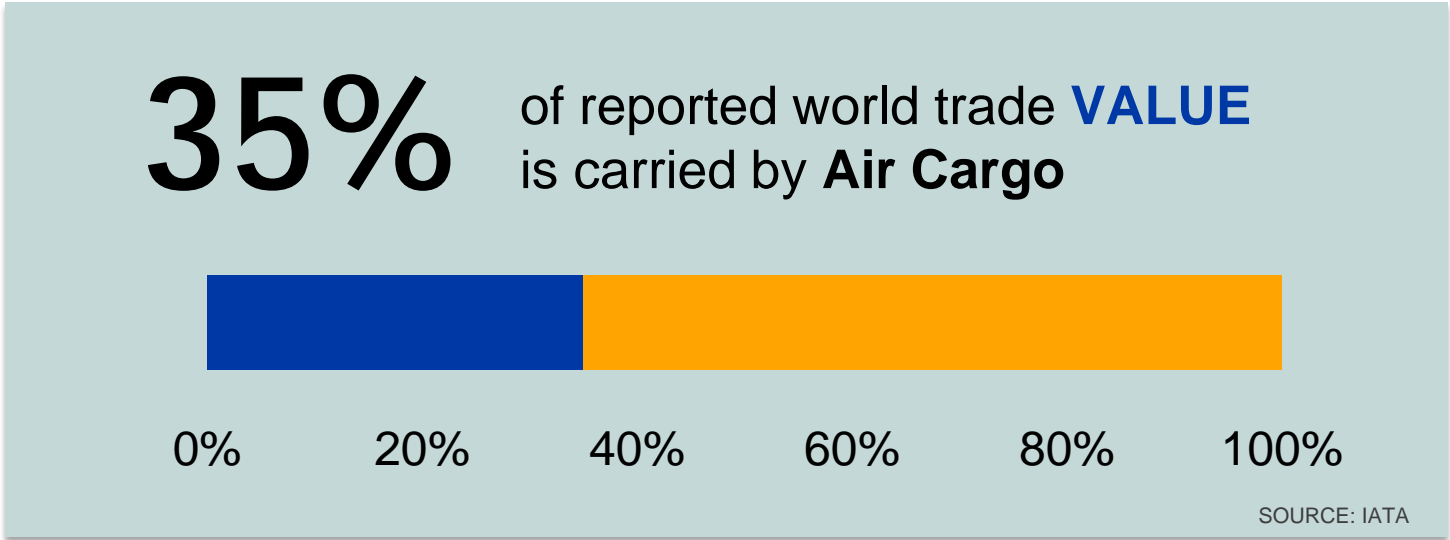
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24 hours in air cargo...



SOURCES: Boeing Market Analysis Research and IATA

Air cargo competitive advantages: speed, reliability and security



Lufthansa: 34M roses for Valentine's Day



High value: Over €1 million



Products that have a six-day shelf-life



Inventory, Just-in-Time



High-income to high-income

Agenda

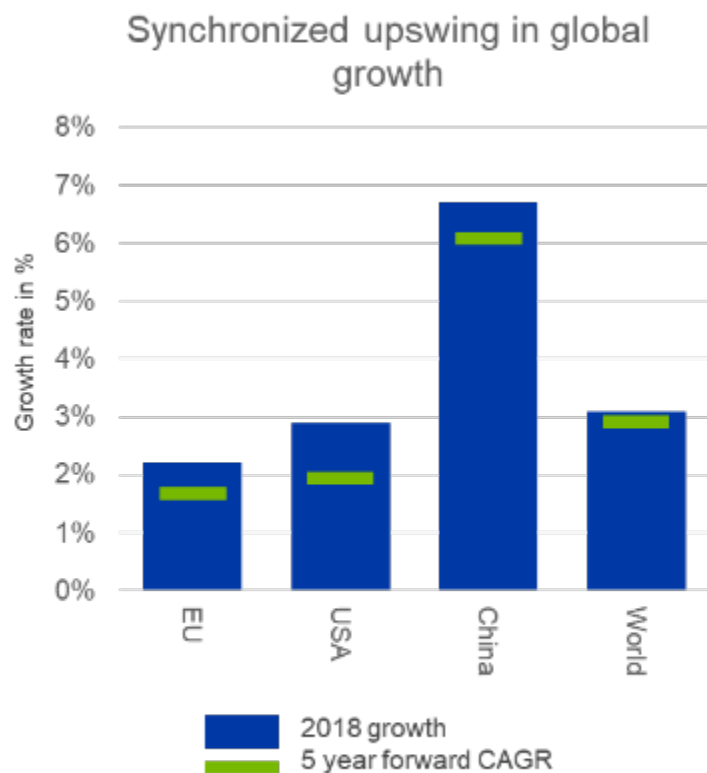


Market
drivers and
dynamics

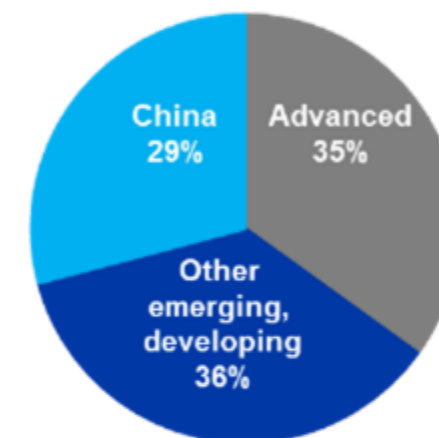
Commercial Market
Outlook (CMO)

Economic fundamentals support strong demand

Key economies growing, industrial production gaining strength



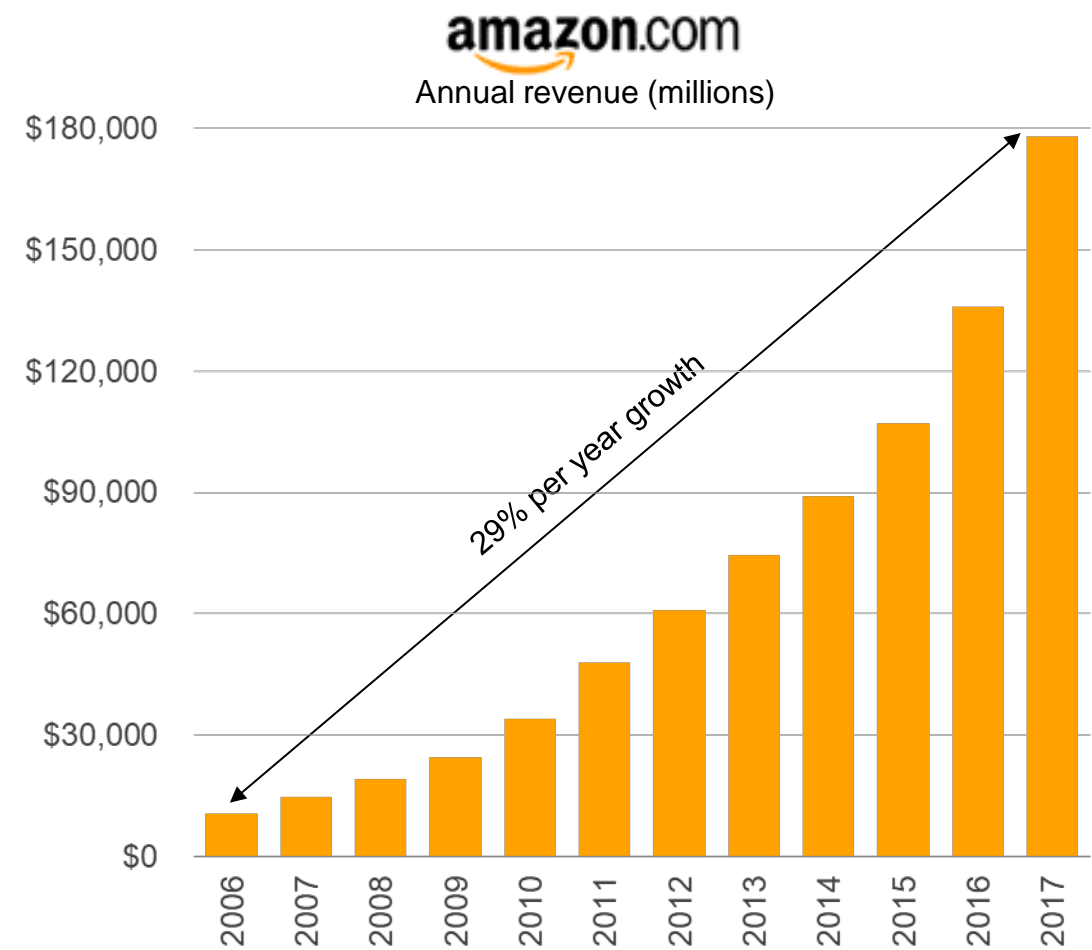
China, Emerging Markets adding most to GDP



2018-2023 contribution to global real GDP growth

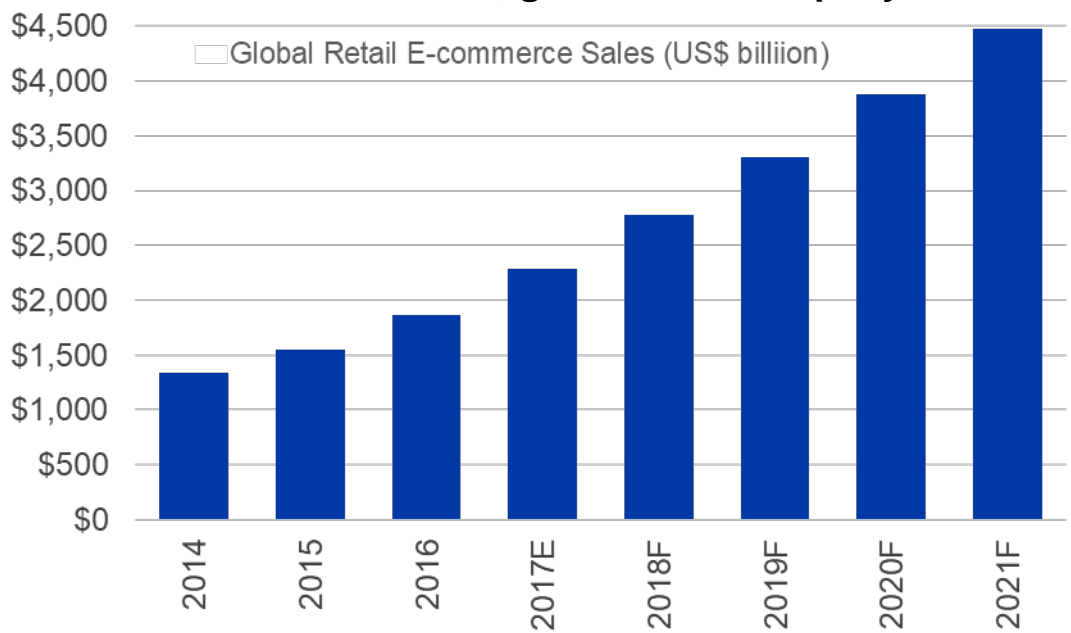
(Percentages may not add to 100 due to rounding)

E-commerce continues rapid expansion



SOURCE: Statista (www.statista.com)

Global retail e-commerce sales to grow to \$4.48 trillion in 2021, growth of 19.2% per year



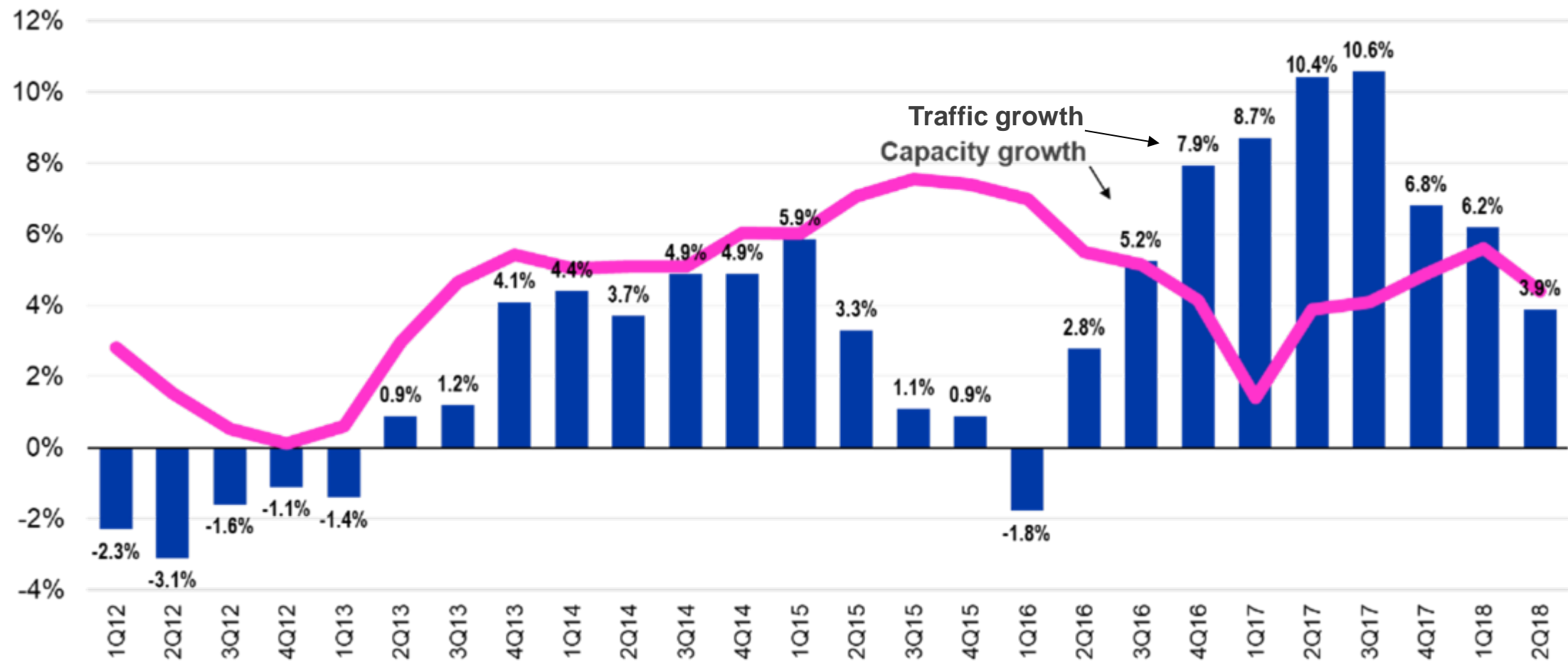
By 2020 China's e-commerce market is forecast to be bigger than the existing markets in America, Britain, Japan, Germany and France combined.

The Economist, The Alibaba Phenomenon



Air cargo capacity exceeding capacity growth in 2Q18

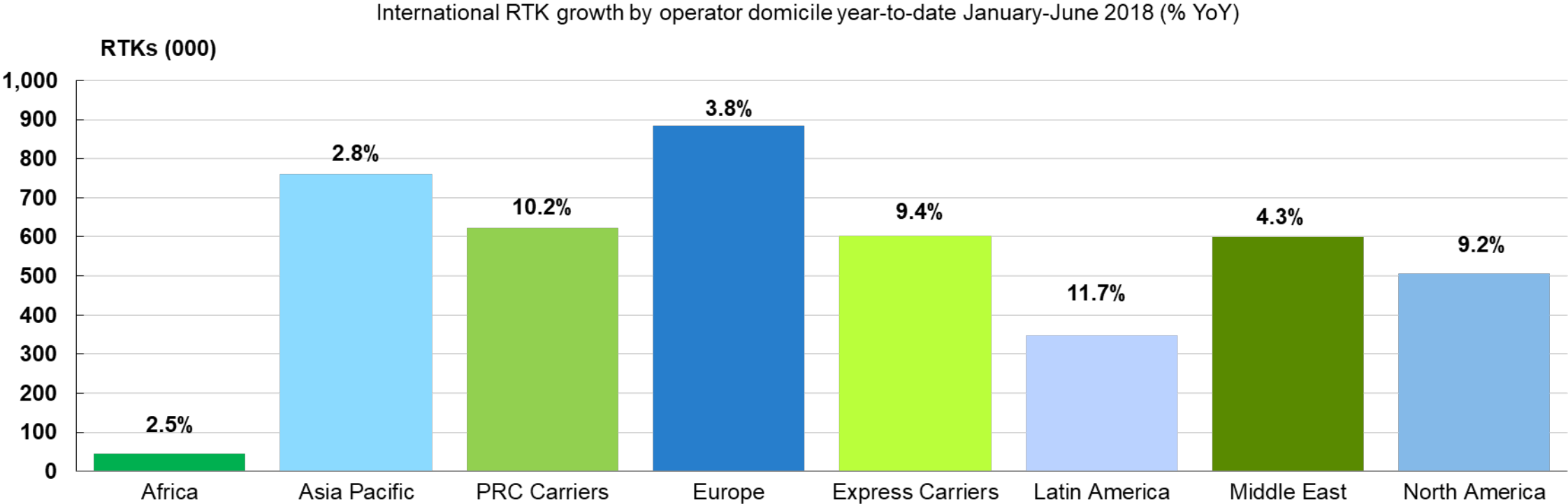
Year-over-year RTK (traffic) and AFTK (capacity) growth settling in, with more balance



Source: IATA Carrier Tracker

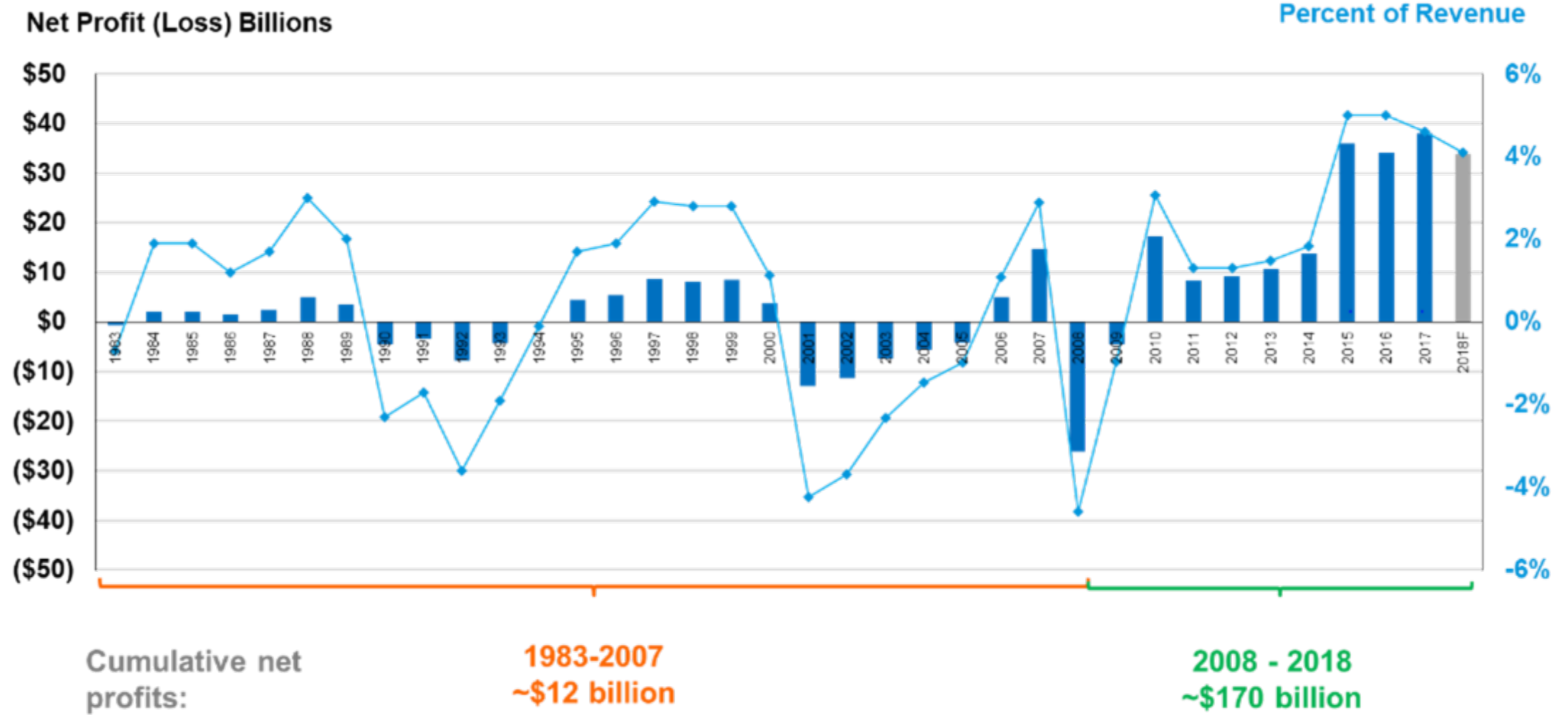
International air cargo growth continuing after spectacular expansion in 2017

Year-over-year growth at 5.0%



Sources: IATA Carrier Tracker, A4A, and Boeing analysis

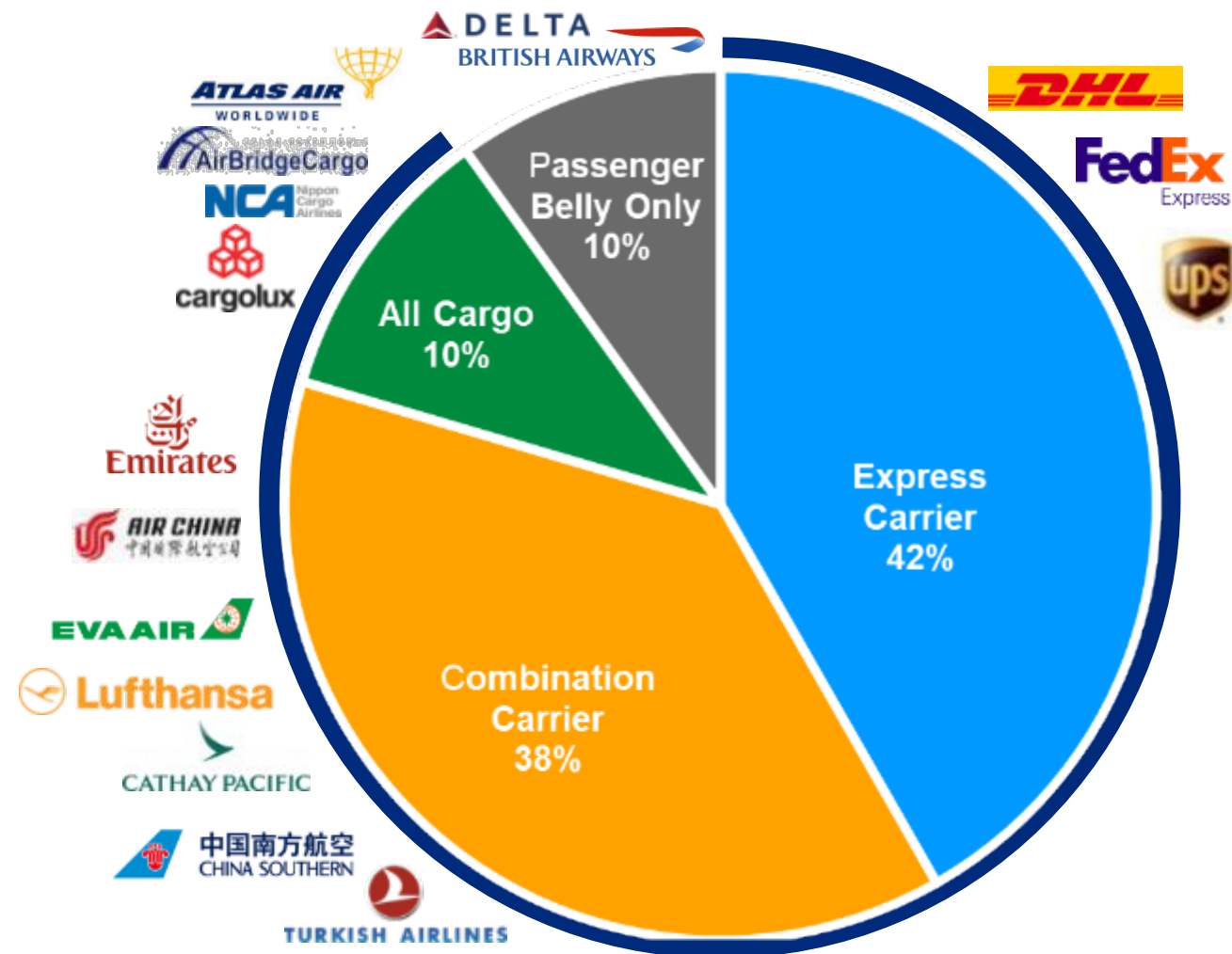
Sustained global airline profits, 3 years of above \$30 billion



Source: ICAO (1983 – 2013) and IATA June 2018 (2015-18)

Freighters critical in air cargo markets

Airlines operating freighters generate 90% of industry revenues



Express Carriers

\$33.7B

Combination Carriers

\$30.6B

All Cargo

\$8.5B

Passenger Belly Only

\$8.0B

TOTAL

\$80.8B

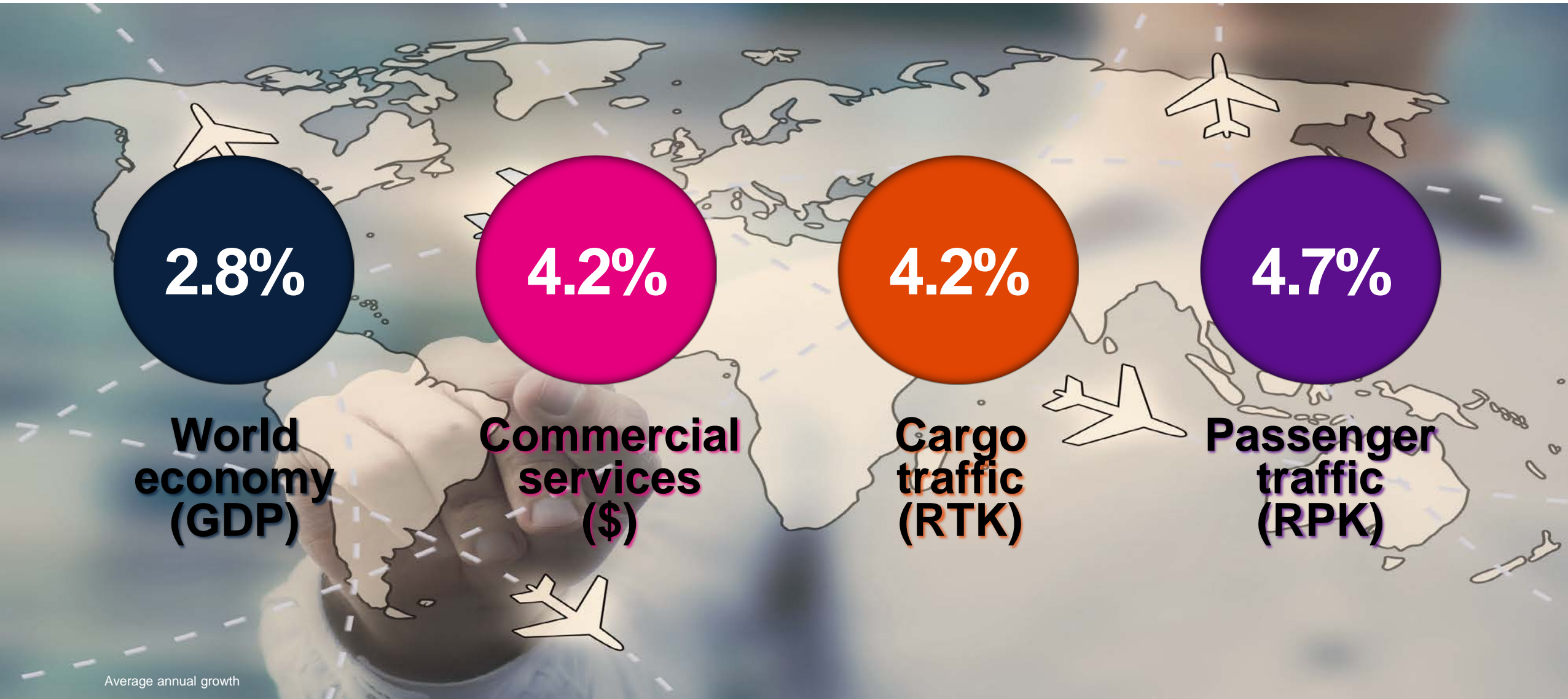
SOURCES: FlightGlobal, U.S. DOT F41, airline reports, and Boeing estimates (2016 data)

Agenda



Commercial Market Outlook (CMO)

20-year forecast: continued long-term growth

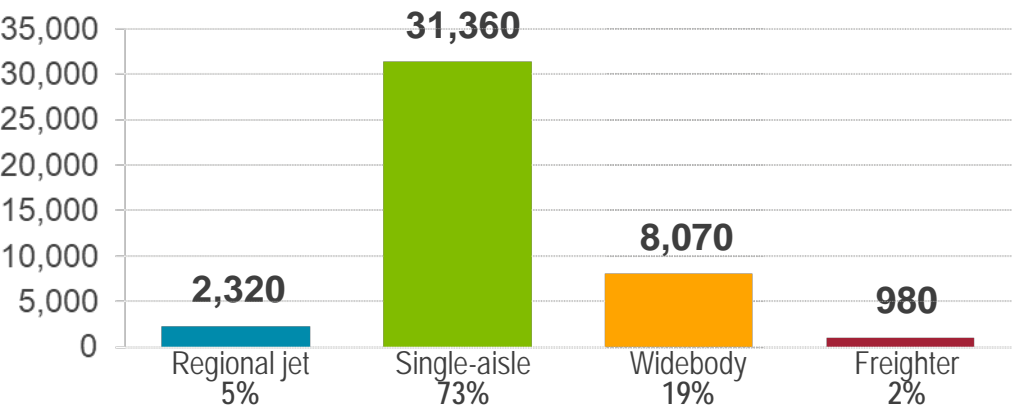


Airlines will need 42,700 new airplanes valued at \$6.3 trillion



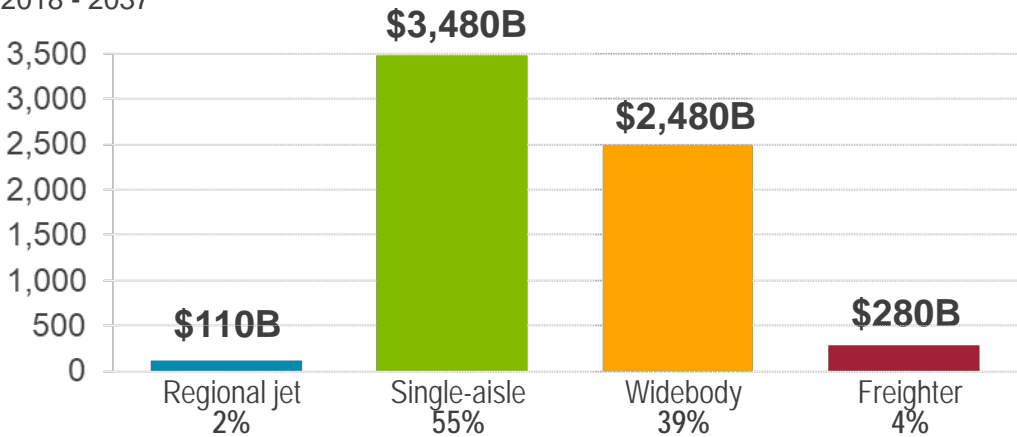
Airplane deliveries: 42,700

2018 - 2037



New airplane values: \$6.3T

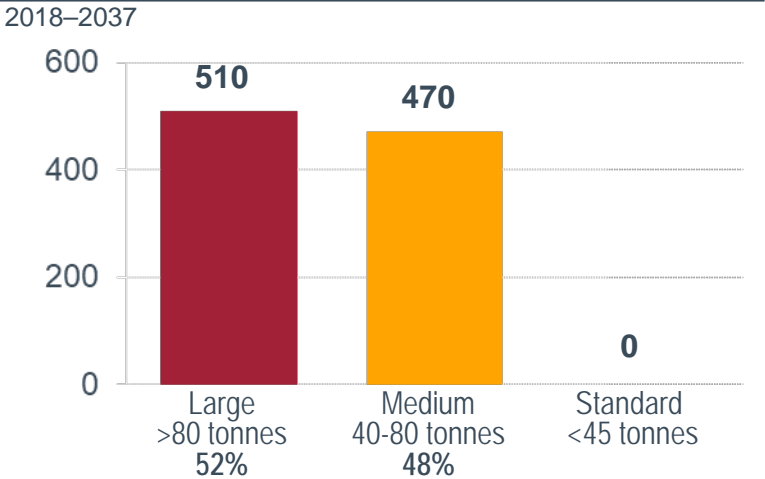
2018 - 2037



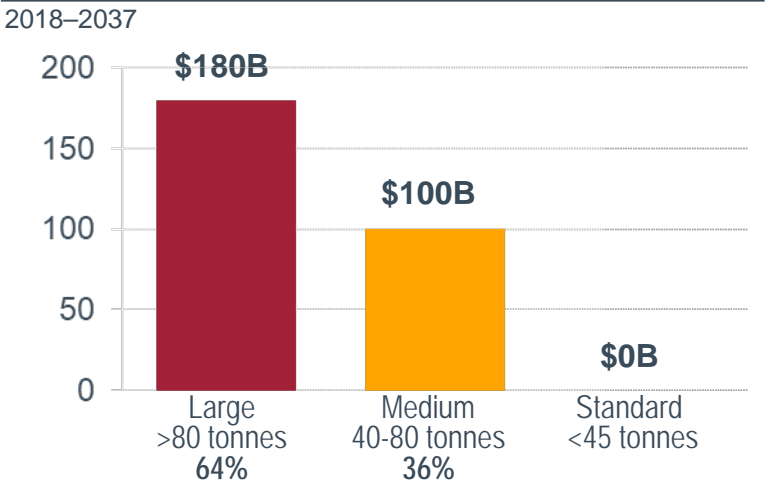
New freighter deliveries will be led by demand for large widebodies



New freighter deliveries: 980

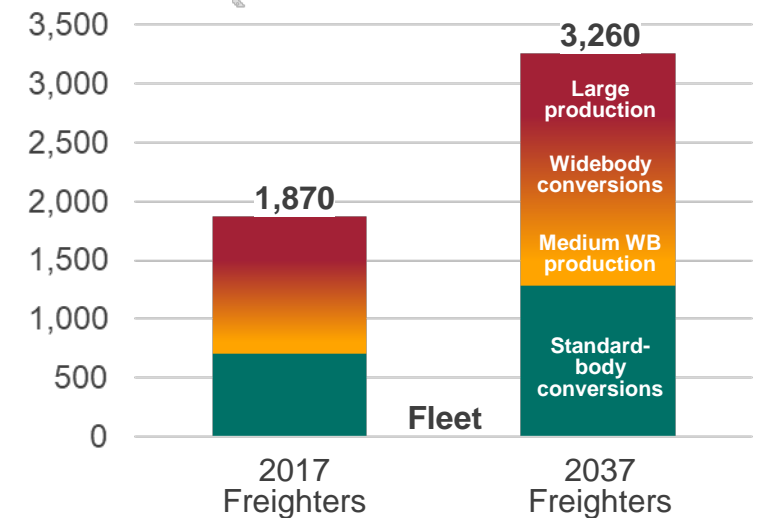
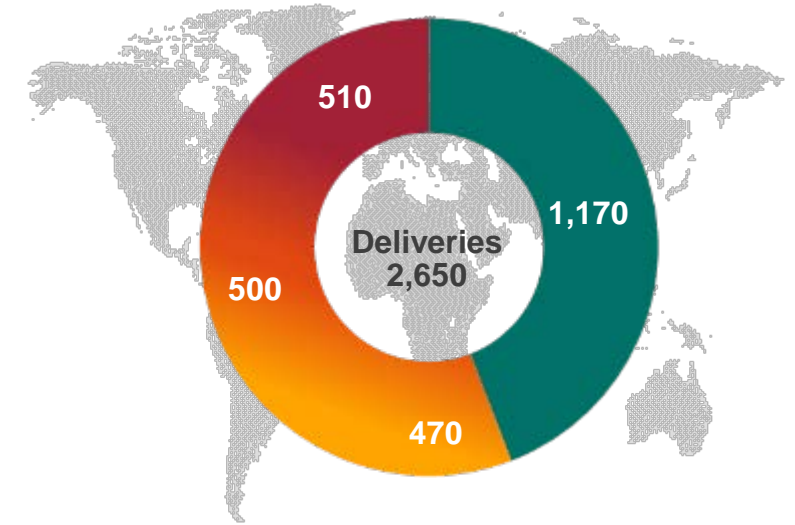


Market value: \$280 billion



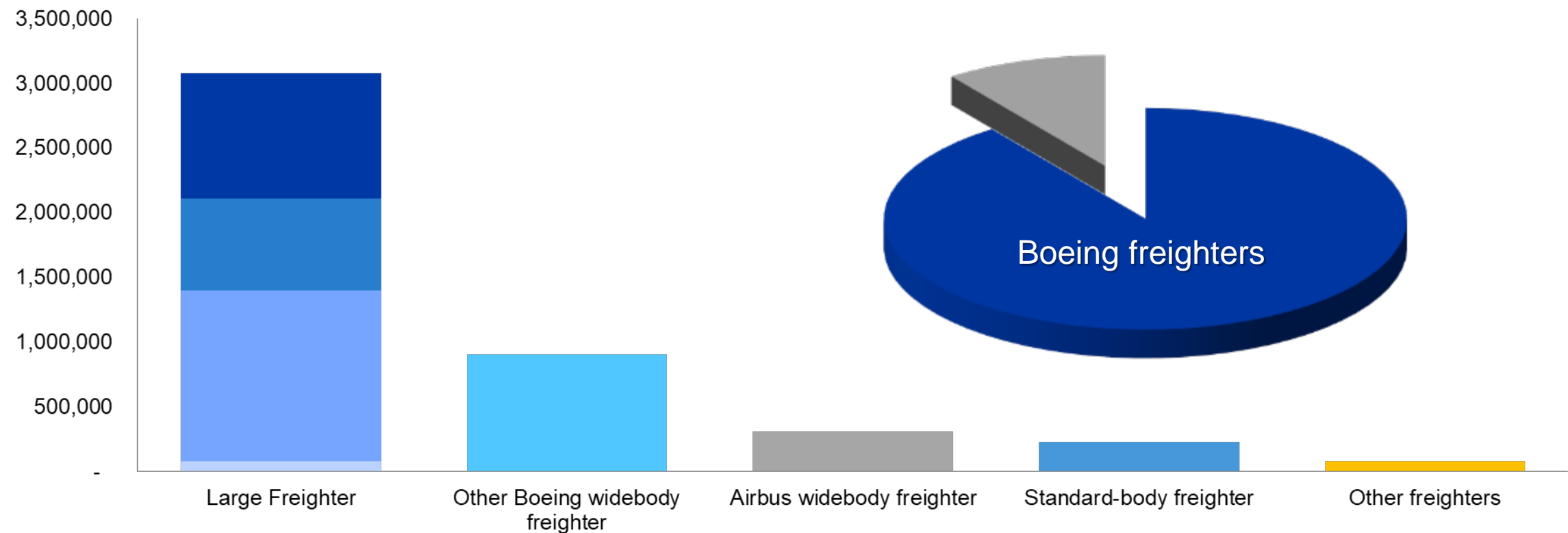
More than 2,600 freighters needed by 2037

Freighter demand = 980 new + 1,670 converted



More than 90% of world's freighter capacity are Boeing

Weekly freighter ATKs (000)



Products and services that deliver value



Things to remember

An aerial, high-angle view of an airport tarmac. Several Boeing 747-400 freighters are parked at gates or on the apron. The aircraft are white with blue accents on the tail and engines. Ground support equipment, including cargo loaders and service vehicles, are visible around the planes. The tarmac is marked with yellow lines. The background shows a hazy sky and distant airport buildings.

World air cargo traffic has rebounded

World air cargo traffic forecast to grow 4.2% per year through 2037

World freighter fleet will expand to 3,260 airplanes over the next 20 years

Boeing is the air freight leader

