

# Global Aviation Industry Trends

## for ICAO AOPSG8



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# I . Global Aviation Industry Overview



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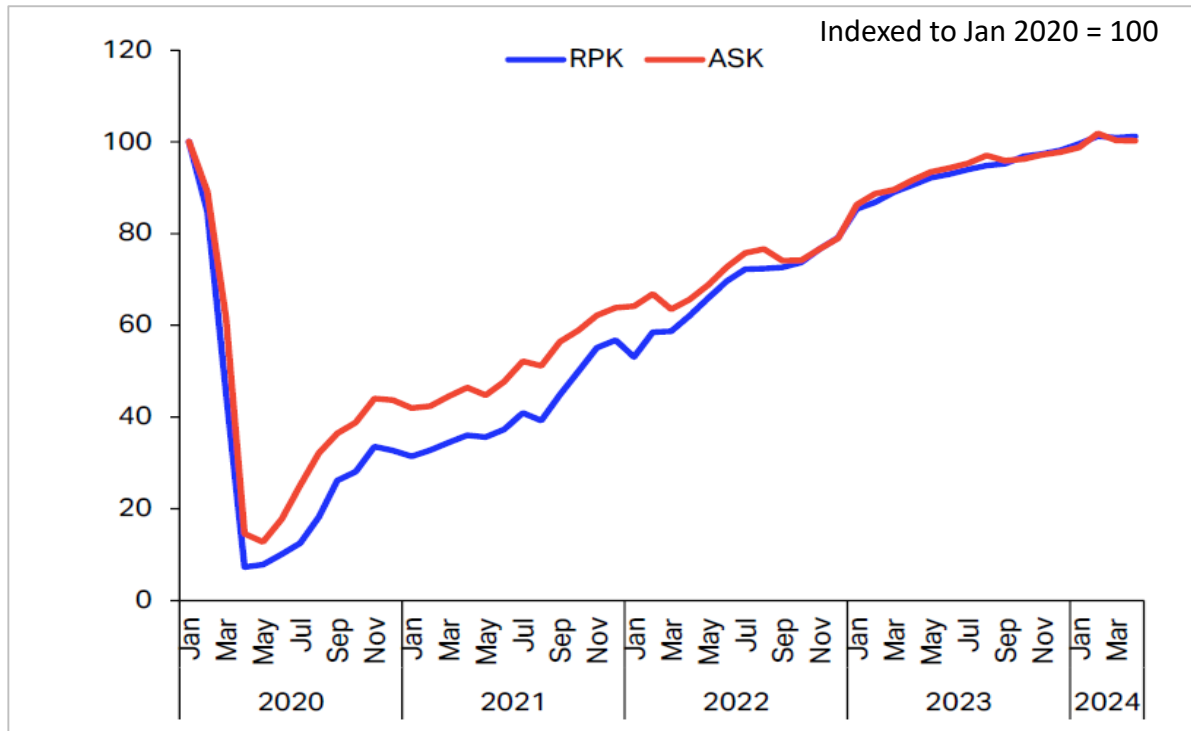


# 1. Global Air Passenger Status



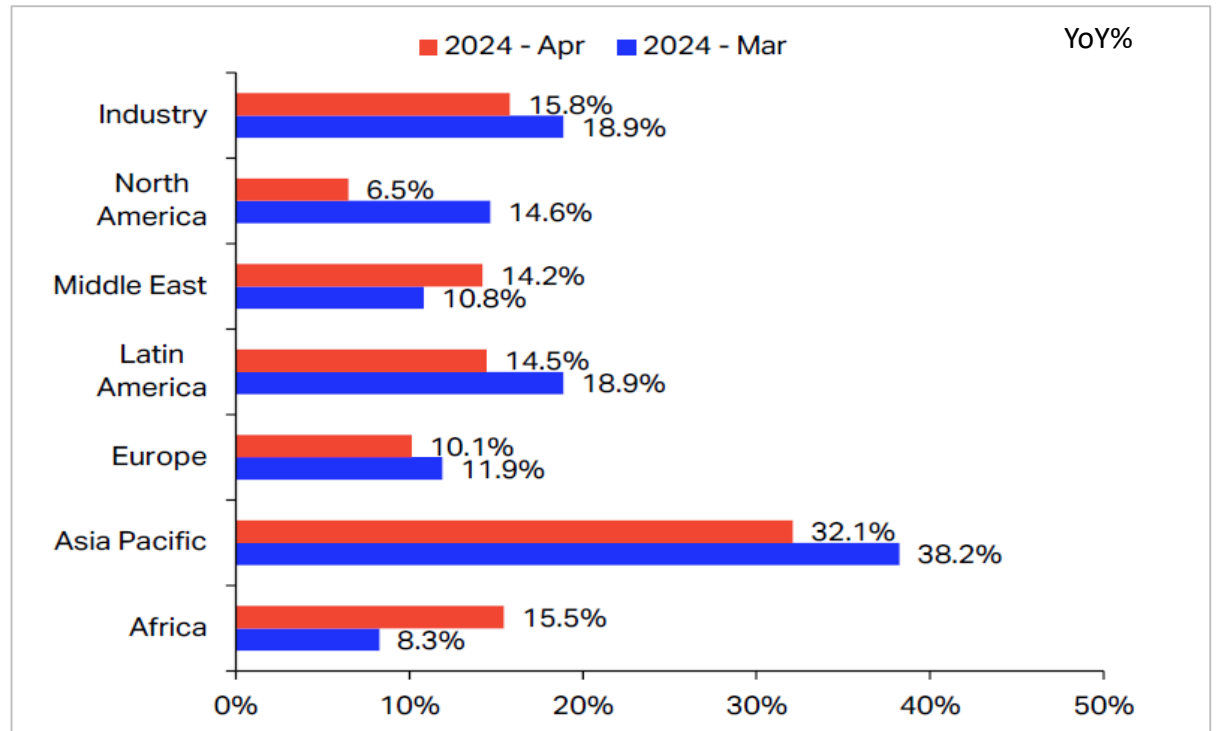
- In April 2024, **global RPK** exceeded the 2019 figures and **increased by 11.0% YoY**.
- In April 2024, **international RPK increased by 15.8% YoY**, driven by growth in the Asia-Pacific region.

## Global RPK and ASK, Seasonally Adjusted



\* Source : IATA, Air Passenger Market Analysis (April 2024)

## International RPK growth by airline region



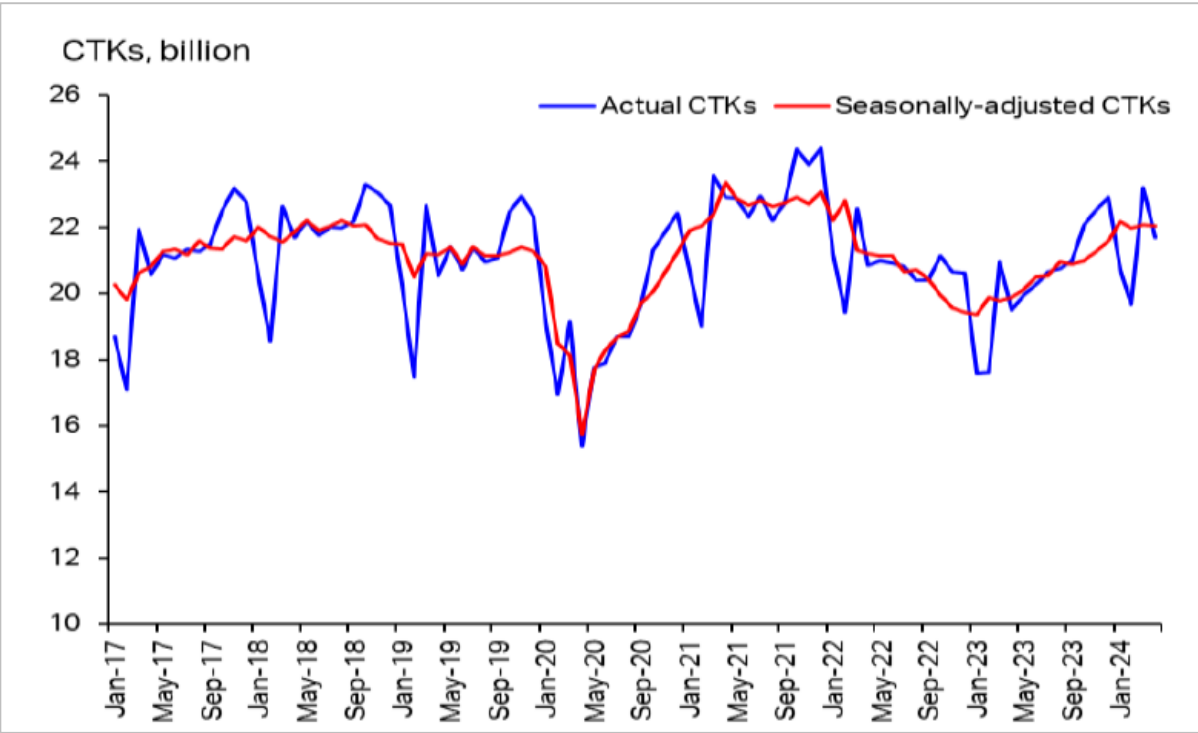
\* Source : IATA, Air Passenger Market Analysis (April 2024)

## 2. Global Air Cargo Status



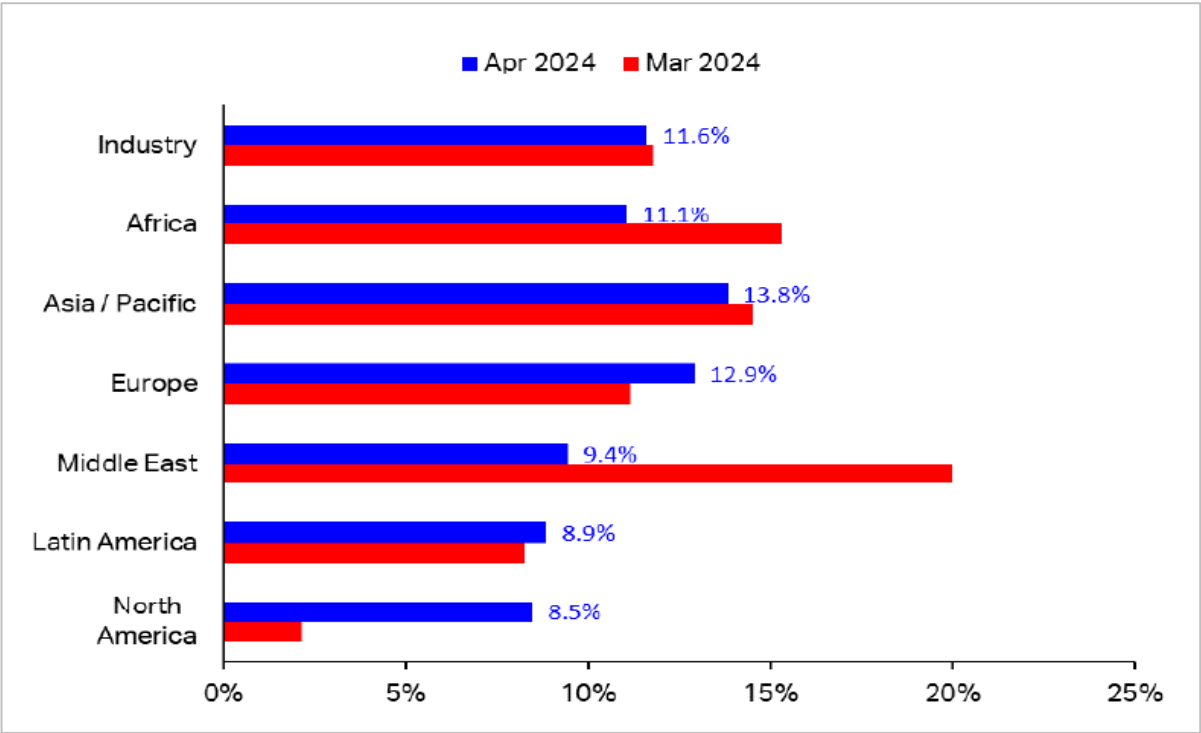
- In April 2024, **global CTK** showed double-digit growth for the fifth consecutive month, **increased by 11.1% YoY**.
- In April 2024, **international CTK** increased by **11.6% YoY**, driven by a surge in e-commerce demand.

Global CTKs (billion per month)



\* Source : IATA, Air Cargo Market Analysis(April 2024)

International CTKs Growth by airline region



\*Source: IATA, Air Cargo Market Analysis(April 2024)

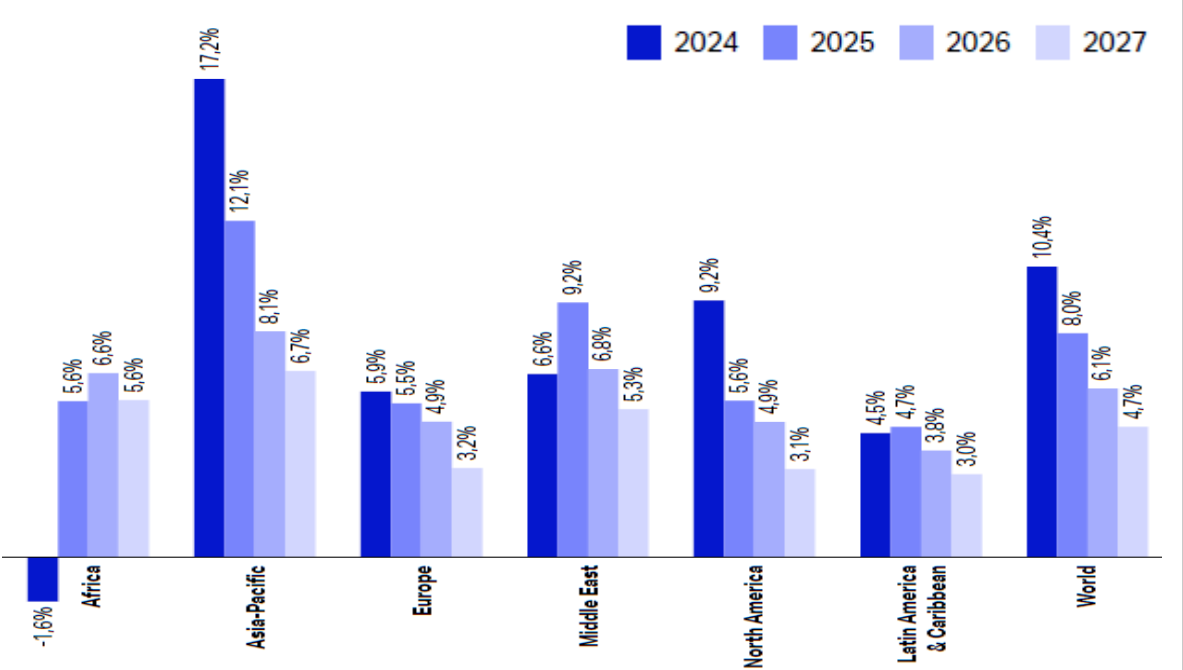
# 3. Global Aviation Industry Outlook



## 3.1 Air passenger demand outlook

- Global air passenger number: 4.54 billion(2019)→4.96 billion(2024) with 3.8% CAGR(2023-2043).
- 5.3% CAGR(2023-2043) in the Asia-Pacific region, accounting for 66.2% of the global passenger number growth.

Global yearly forecast growth rates by region



Regional and global CAGR and net growth(2023-2043)

Region	CAGR (2023 - 2043)	Additional passengers by 2043, million
Africa	3.7%	179
Asia Pacific	5.3%	2,750
Europe	2.3%	656
Middle East	3.9%	282
North America	2.7%	659
Latin America & Caribbean	2.9%	311
World	3.8%	4,154

\* Source : IATA, Global Outlook for Air transport(June 2024)



# 3. Global Aviation Industry Outlook

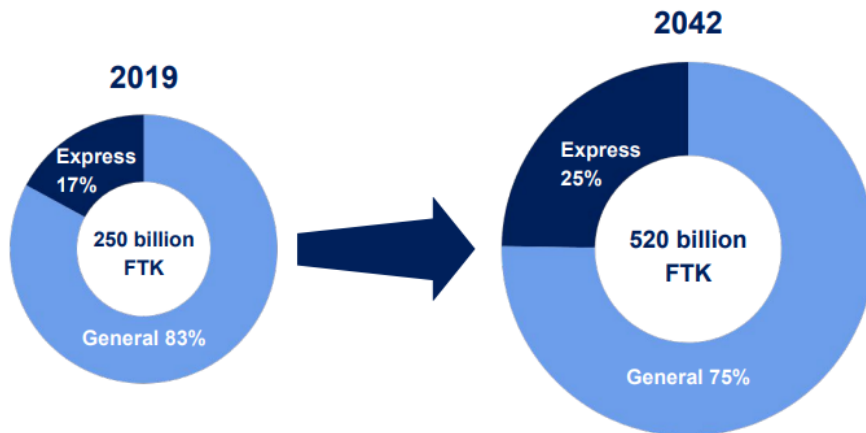


## 3.2 Air cargo outlook

- **Global air cargo:** 250 billion FTK(2019)→520 billion FTK(2042) with **3.2% CAGR**.
- **Freighter:** 1,990 units(2020)→3,230 units(2042) with **2.2% CAGR**.

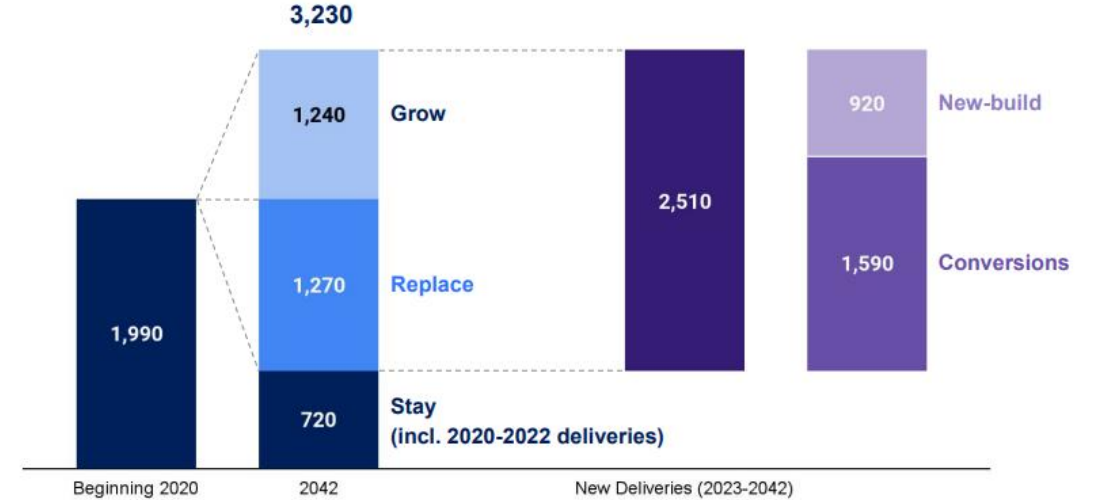
### Global air cargo outlook(2019-2042)

World air cargo traffic +3.2% CAGR 2019-2042



### Global freighter outlook(2020-2042)

Number of freighter aircraft



\* Source : Airbus, Global Market Forecast 2023

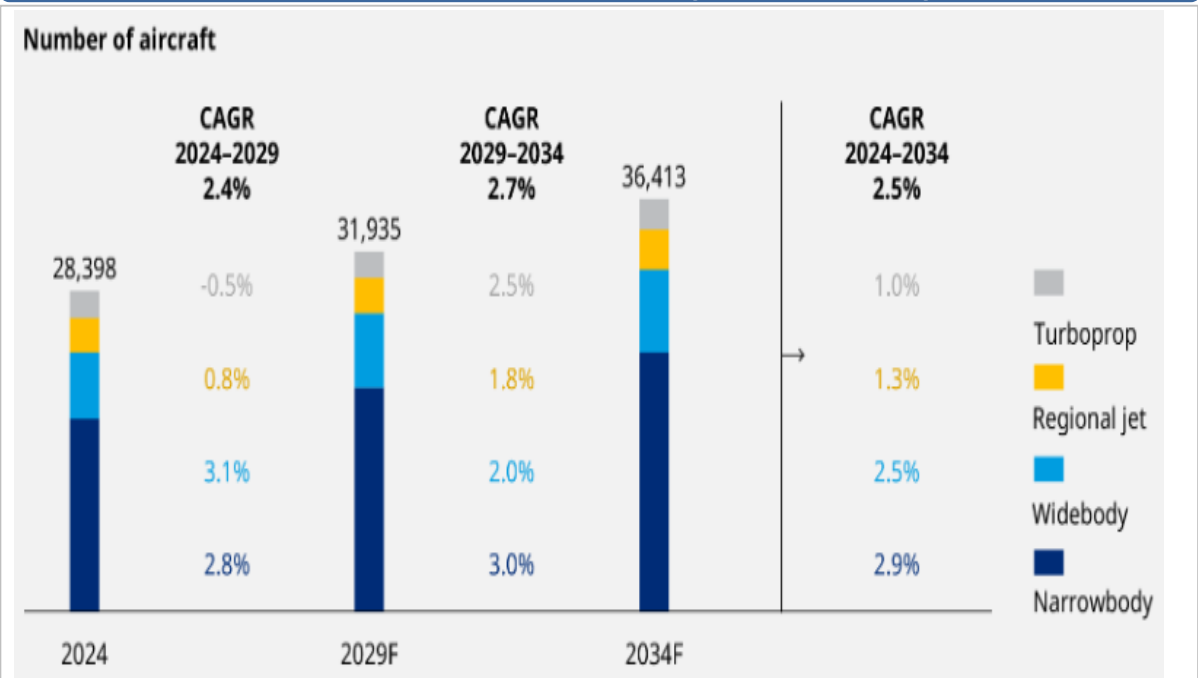
# 3. Global Aviation Industry Outlook



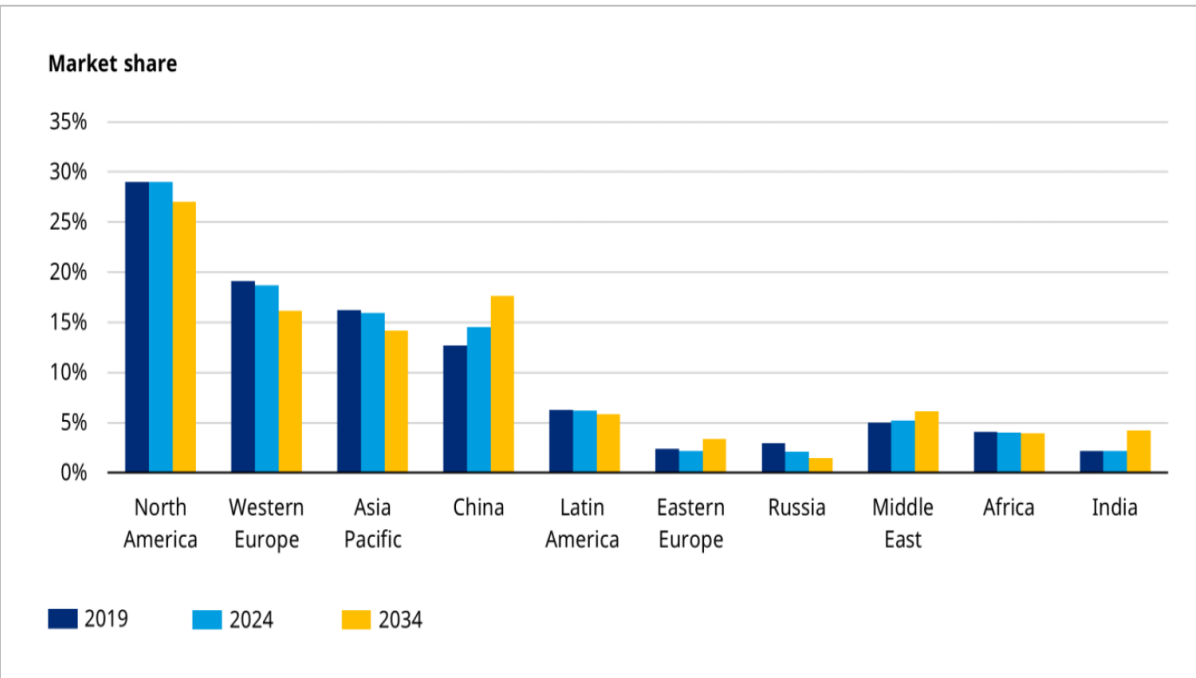
## 3.3 Global fleet outlook

- **Global fleet:** 28,398 units(2024) → **36,413 units(2034)** with 2.5% CAGR.
- **Asia-Pacific region's share:** 15.9%(2024) → **14.2%(2034)**
- On the other hand, **China's(14.5% → 17.7%)** and **India's (2.1% → 4.2%) shares** are expected to rise.

Global fleet outlook(2019-2033)



Fleet market share outlook by region



\* Source : Oliver Wyman, Global Fleet and MRO Market Forecast 2024-2034



## II. Key Issues in Aviation Industry

1 Challenges facing the global aviation industry

2 Aircraft Deliveries

3 Trends in Airfare

4 Airport Technology Trends

5 2050 Net zero and SAF

6 Growth of E-commerce Market



# 1. Challenges facing the global aviation industry



- World Health Organization(WHO) declared **the end of pandemic phase of COVID-19(May 5<sup>th</sup>, 2023)**.
- Focus Areas: Securing human resources, Enhancing aviation security, Reducing carbon emissions



## Black Swan

; The unexpected crisis in the global economy

**COVID-19** Assessed by WHO **as pandemic**. (Mar 11<sup>th</sup>, 2020)

- Drop in pax demand
- Catastrophic impact on the global aviation industry
- Global economic downturn

- Pandemic continued
- Increased uncertainty

Reopening era  
(Resumption of economic activity)

## Aviation industry's

### Back on track

- ✓ Labor shortage
- ✓ Aircraft deliveries
- ✓ Airfare
- ✓ Airport Technology
- ✓ ESG(Net zero 2050)

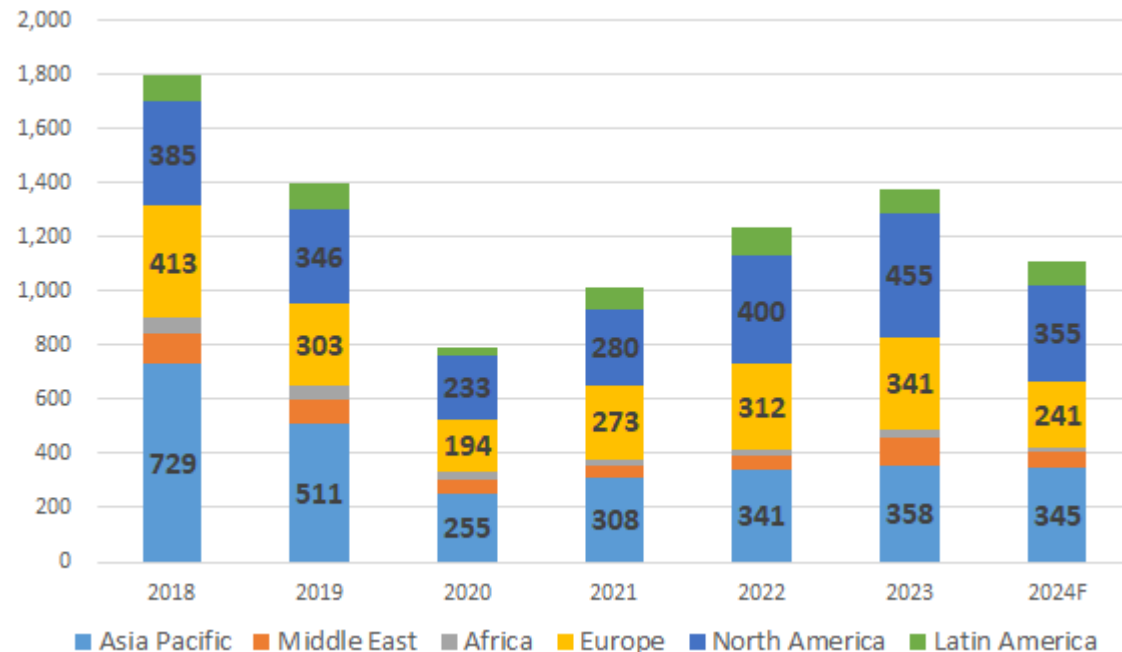


## 2. Aircraft Deliveries



- In 2024, **the number of aircraft deliveries** is expected to record **1,109 units**(decreased 19.5% YoY, **79.4%** of the pre-COVID-19).
- Aircraft delivered by region: North America(32.0%), **\*Asia-Pacific(31.1%)**, Europe(21.7%) **\*36.6% in 2019**
- Boeing 737 MAX safety issues are expected to cause **delays in aircraft manufacturing and deliveries**.

### Yearly and region-wise aircraft delivery



### Boeing Timeline in 2024

- Jan 5<sup>th</sup> • Alaska Airlines' **Boeing 737 Max 9** lost a **door plug** at 16,000 feet.
- Feb 6<sup>th</sup> • The NTSB said that the incident was down to **four crucial bolts being missing** from the panel.
- Feb 27<sup>th</sup> • The FAA gave Boeing 90 days to come up with a plan to fix problems.  
• And **barred Boeing from expanding 737 Max production**.
- Mar 25<sup>th</sup> • Boeing announced that CEO Dave Calhoun will leave the company at the end of the year.
- May 30<sup>th</sup> • **Cap remains** on 737 MAX production at **38 units per month**, and it will likely take a few more months before it can be increased again.

\*Source : CAPA

### 3. Trends in Airfare

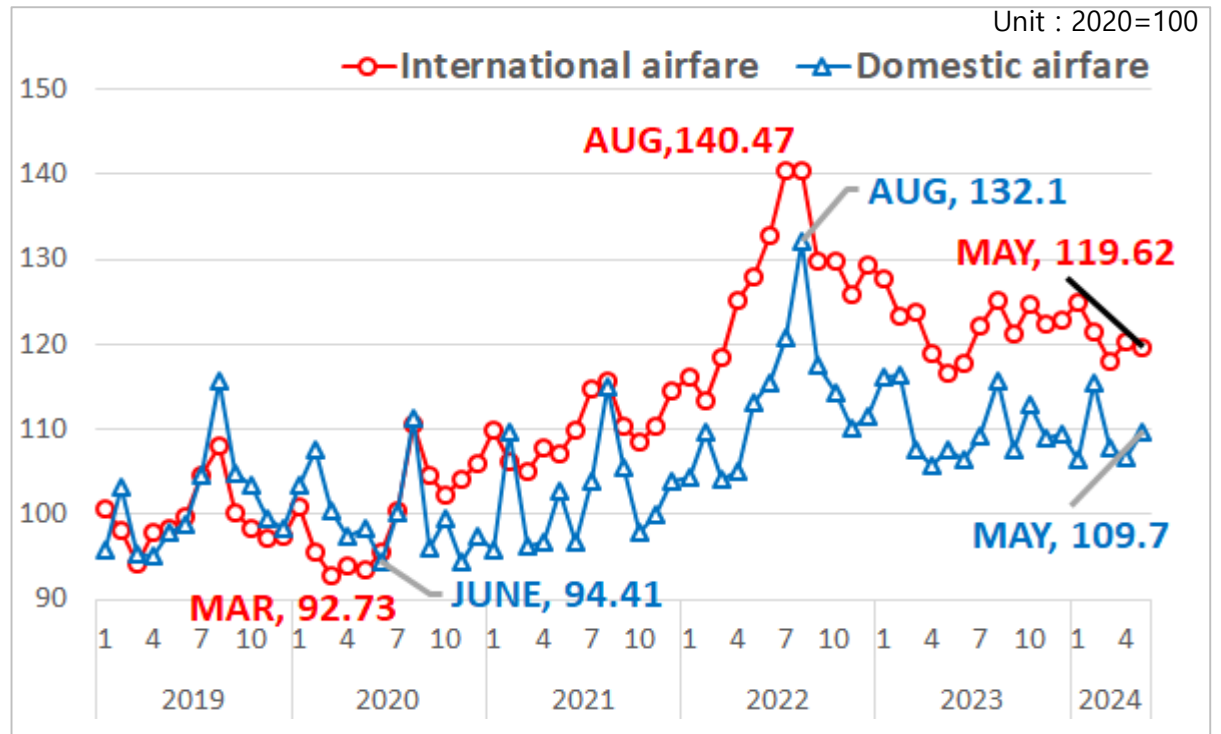
- Border restrictions lifted ► Air passenger demand increased ► Limited airline seats capacity ► **Imbalance between supply and demand** ► Airfare increased (fuel surcharges, labor costs)

#### Factors of the Potential Continuation of High Airfares in 2024

- ➔ Sustainable Air Travel
- ➔ Limited capacity
- ➔ Strong demand
- ➔ High oil prices
- ➔ Geopolitical tensions
- ➔ Labor shortages

\* Source : The national news

#### CPI for International and Domestic Korea Airfares



\* Source : Statistics Korea



## 4. Airport Technology Trends



- In 2023, **airport IT-related expenditures** reached approximately **\$10.8 billion**, and many airport operators anticipate that IT-related spending will continue to increase through 2024. (2023 IT Insight, SITA)
- Primary investing areas: **Enhancing passenger experience, biometric technology, AI, ML, autonomous driving technology, security technology** and so on.

### Passenger experience

- ➔ **Tokyo-Haneda Airport:** Updating AI chatbot 'Bebot' to provide multilingual guidance services.
- ➔ **Changi International Airport:** Launching a virtual reality experience service 'ChangiVerse', based on the metaverse concept.
- ➔ **19 airports in North America and Europe:** Operating reservation services for security screening lanes by CLEAR.

\* Source : KCA, Annual Issues Reviews: 2023(GAT)

### Biometric technology

- ➔ **Incheon International Airport:** Introduction of 'Smart Pass' service allowing departure using facial recognition.
- ➔ **Changi International Airport:** A possibility of introducing an automated biometric entry immigration system in the first half of 2024.
- ➔ **Frankfurt Airport:** Introducing a biometric recognition system for all travelers.

\* Source : KCA, Annual Issues Reviews: 2023(GAT)

### AI, ML technology

- ➔ **Chek Lap Kok Airport:** Introduction of patrol robots to enhance cargo terminal security.
- ➔ **Hongqiao International Airport:** Introduction of AI and ML technologies for predicting estimated arrival times (ETA) of aircraft.
- ➔ **Changi International Airport:** Reduction of security screening time by 50% through baggage inspection using AI and ML technologies.

\* Source : KCA, Annual Issues Reviews: 2023(GAT)

## 5. 2050 Net zero and SAF

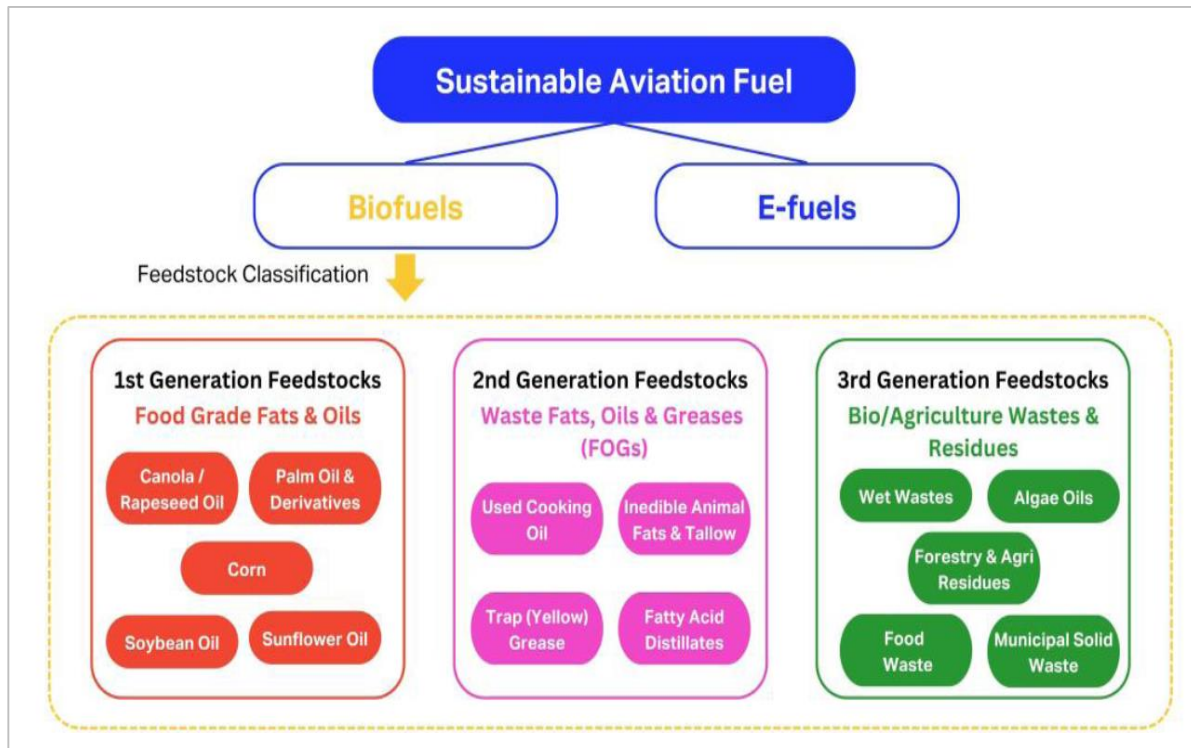


➤ IATA foresees the following ways to achieve Net Zero by 2050:

① SAF 65% ② Carbon Capture and Offsetting 19% ③ New Technologies (e.g., Electric, hydrogen) 13% ④ Infra and flight operations 3%

➤ But, the **price of SAF** is approximately **3 to 5 times higher** than jet fuel and its production is also limited.

### Broad SAF Classification



\* Source : IATA

### Countries' Policy Trends on Sustainable Aviation Fuel (SAF)

- ➔ United States: Grand Challenge, Inflation Reduction Act
- ➔ EU: ReFuelEU Aviation
- ➔ United Kingdom: Jet zero Strategy
- ➔ Canada: Clean Fuel Standard
- ➔ Singapore: Singapore Sustainable Air Hub Blueprint
- ➔ Japan: ACT FOR SKY, Green Innovation Fund Projects
- ➔ Republic of Korea: "Petroleum and Petroleum Substitute Fuel Business Act" Amendment

\* Source: KCA, Global Aviation Trends 2024



## 6. Growth of E-commerce Market

- E-commerce market revenue is projected to continue growing, reaching an estimated **\$6.9 trillion in 2024**.
- Rapid growth in e-commerce from China-based platforms has contributed to the improvement of air cargo performance.

\*e.g., AliExpress, TEMU, SHEIN

### Global E-commerce Market Growth

trillions, % change, and % of total retail sales



Note: includes products or services ordered using the internet, regardless of the method of payment or fulfillment; excludes travel and event tickets, payments such as bill pay, taxes, or money transfers, restaurant sales, food services and drinking place sales, gambling and other vice goods sales

Source: Insider Intelligence | eMarketer Forecast, Jan 2024

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Insider Intelligence | eMarketer

\* Source: eMarketer Jan 2024

### Ranking of Countries by E-commerce Market Size in 2023

with each country's top 3 e-commerce brands and 2023 earnings (\$ billions)

	Share	Sales (\$ billions)	Top e-commerce brands	2nd top e-commerce brands	3rd top e-commerce brands
China	52.1%	3,024	JD.com \$132.76	Tmall \$22.19	VIP.com \$16.38
United States	20.1%	1,163	Amazon \$130.27	Walmart \$52.40	Apple \$30.99
United Kingdom	3.4%	196	Amazon UK \$15.36	Sainsbury's \$7.04	Tesco \$7.04
Japan	3.3%	193	Amazon Japan \$12.83	Apple \$3.61	Yodobashi Camera \$2.50
South Korea	2.5%	147	Coupang \$18.25	Lotte Hi-Mart \$1.34	SSG \$1.33
India	2.0%	119	AJIO \$2.15	Reliance Digital \$1.37	JioMart \$1.24
Germany	1.7%	97	Amazon DE \$16.10	OTTO \$5.06	Zalando \$2.92
Indonesia	1.6%	97	JD \$1.02	Bilibili \$697.4 million annual sales	Orami \$372.0 million annual sales
Canada	1.4%	83	Amazon CA \$11.51	Walmart \$4.15	Costco \$2.55
France	1.4%	79	Amazon FR \$5.14	Shein \$1.75	Veepee \$1.57

\* Source: USA TODAY Blueprint via eMarketer



THANK YOU

