

Near-term challenges abound, but strong industry fundamentals should power long-term growth.

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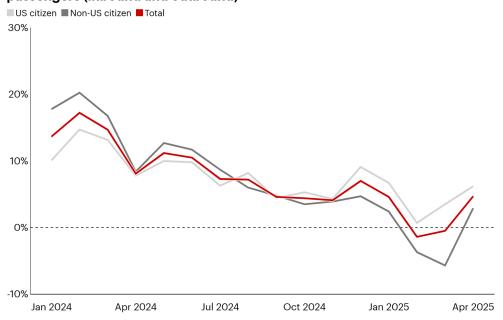
#### At a Glance

- US international passenger air travel dropped below 2024 levels in February and March after 12 months of consistent growth.
- Global revenue passenger kilometers are still forecast to grow at a compound annual rate of 4.7% through 2030 if economic growth stabilizes and supply keeps pace.
- Supply of aircraft may constrain air travel, as deliveries in 2023 and 2024 fell short of demand by 31%.
- Trade barriers and investment uncertainty will worsen current constraints on aircraft production and maintenance.

Air travel demand has bounced back fast, topping its prepandemic peak in 2024. But the industry faces new volatility from trade tensions, shifting traveler behavior, and supply constraints, particularly in the US. Air travel to and from the US has been softer in the first half of 2025, despite lower oil prices (see Figure 1).

Figure 1: International air travel to and from the US recently dropped below 2024 levels

#### Monthly year-over-year change in total US international air travel passengers (inbound and outbound)



Source: ITA



The outlook for the next five years is mixed. In the near term, unprecedented uncertainty about trade flows, macroeconomic conditions, and traveler sentiment will temper demand. Over the long run, the fundamentals for air travel remain strong. More efficient aircraft, falling real ticket prices, and rising demand in developing markets will keep air travel on a growth trajectory-if the industry can overcome significant capacity constraints.

For now, airlines are grappling with declining demand, despite lower oil prices and softening commitm, ents to sustainability initiatives. US international passenger air travel dropped below 2024 levels in February and March after 12 months of consistent growth.

And more shifts may be ahead. For example, travelers are just beginning to react to perceived travel barriers and tariffs by changing where they fly, though most of those effects have been limited to flights between the US and countries with strong immigration restrictions (e.g., Mexico and Colombia) and those with emerging anti-US sentiment.

At the same time, a weakening of the US dollar is likely to reshape both travel flows and airline costs. While it could attract more inbound travelers, a weaker dollar would raise local currency costs for major airline expenses like fuel, aircraft ownership, and maintenance.

#### Long-term air travel resilience

Air travel demand has soared for decades, with revenue passenger kilometers growing at a 5.5% compound annual rate from 2000 to 2019 -almost twice the rate of global GDP growth. Several powerful forces fueled that rise: global economic growth, expanding middle classes in developing countries, more efficient aircraft, and low-cost carrier models that made flying more affordable.

Those forces will continue to power air traffic growth. Global revenue passenger kilometers are forecast to grow at a compound annual rate of 4.7% through 2030 if economic growth stabilizes and supply keeps pace. Low-cost carriers hold just 25%-30% of the market in North America, Europe, and Asia and have room to grow as domestic and leisure travel expand. Demand from rising middle classes, especially in markets like India, continues to climb. And next-generation, increasingly efficient aircraft engines will continue to capture share of the global fleet.

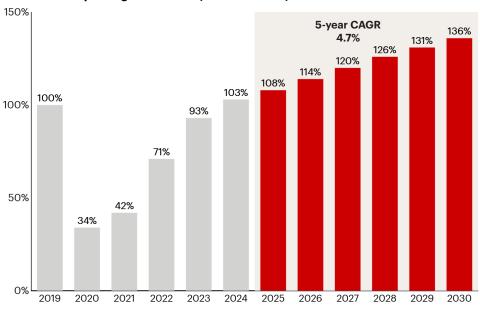
If global economic headwinds prove temporary, as they often have, demand will not be the lilniting factor in air traffic growth. In this scenario, an economic slowdown will lead to a modest weakening of near-term demand (see *Figure 2*). The main challenges in the industry will arise from the supply side.



**Figure 2:** Global revenue passenger kilometers are forecast to grow 4.7% annually through 2030

Actual May 2025 forecast

#### Global revenue passenger kilometers (indexed to 2019)



Source: Bain Air Traffic Demand Model

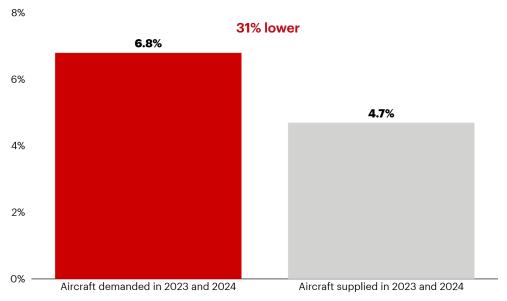
However, if a global economic slowdown sets in and traveler sentiment declines further, demand will be more constrained.

#### An overburdened supply chain

Aircraft production and maintenance continue to lag far behind demand. Legacy fleets are operating years past their intended retirement as new aircraft deliveries fall short of targets (see *Figure 3*). Adding to the squeeze, record numbers of aircraft are grounded, waiting on overdue maintenance.

**Figure 3:** Aircraft deliveries in 2023 and 2024 trailed global demand by more than 30%

#### Global deliveries as a percentage of active fleet



Note: Demanded deliveries would enable retirement of 3.5% of aircraft per year (in line with expected retirements at this stage in aircraft life cycles} while maintaining storage rates at about 15% due to high maimenance. repair, and overhead turnaround time

Sources: Bain Commercial Aviation Fleet Model; Cirium

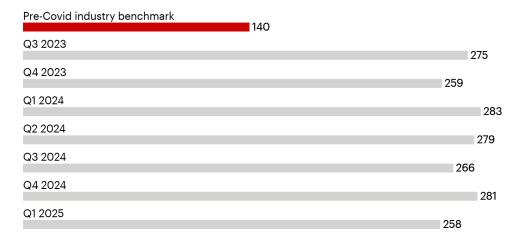
Aircraft backlogs are huge. Manufacturers are making substantial efforts to support their supply chains but are unable to close the gap. Disruptions and parts shortages persist, limiting the number of new aircraft built. In 2024, Boeing and Airbus grew their fleets by only 4.7%, well short of the 6.8% growth needed to meet demand and enable normal retirement rates, according to Bain analysis.

The maintenance sector is stretched even thinner. Deferred maintenance, reliability issues with newer engines, and persistent parts shortages have sharply increased backlogs and doubled turnaround times. Average wing-to-wing turnaround time for GTF engines has risen from 140 days before the pandemic to more than 250 days for the past seven quarters (see *Figure 4*).



**Figure 4:** The maintenance and repair turnaround time for narrowbody engines remains much higher than before the pandemic

## PW1000G (GTF) engine wing-to-wing turnaround time for standard work scope (days)



Note: Wing·to·wing turnaround time includes shop visit turnaround time plus wait time for shop visit Source: RBC Capital Markets MRO survey

There are several underlying causes: Critical raw materials are in short supply, used serviceable material (USM) is less plentiful given fewer aircraft retirements, and the industry suffers from ongoing acute skilled labor shortages. Mismatches in delivery timing at each step in the supply chain, from raw materials to final assembly, make matters worse.

#### Regulatory and trade shift challenges

Regulatory and trade uncertainties worsen supply chain constraints. The Aerospace Industries Association (AIA) has warned that new tariffs will have negative impacts on the US aerospace sector. Historically exempt under the WTO Agreement on Trade in Civil Aircraft of 1980, civil aircraft and parts have not been completely shielded from recent US tariffs, creating new frictions for original equipment manufacturers (OEMs) and suppliers trying to scale capacity.

Tariff uncertainty is creating near-term volatility in airline demand and exacerbating supply chain problems. Commercial aerospace supply chains are inherently global with complex parts flows, and any added cost or friction will likely force suppliers to raise prices.



Delta paused Airbus deliveries pending US-EU trade clarity, and China temporarily refused to accept Boeing 737s. One major US supplier, Howmet Aerospace, cited force majeure, allowing it to pause deliveries on any tariff-affected products, highlighting just how quickly trade tensions can disrupt critical supply lines. And potential Chinese

restrictions on rare earth metals could create bottlenecks in areas like coatings, critical for engine production.

#### Constraints on air travel

This combination of challenges could alter demand, constrain capacity, and change the underlying nature of airline fleets. The shortfall of new aircraft deliveries means airlines and lessors must extend the life of mid- and late-stage aircraft to meet demand. That means more investment in older fleets.

The result of these added costs will be rising prices, longer wait times, and more aircraft stuck on the ground. Aging aircraft require more maintenance and spare parts, increasing maintenance, repair, and overhaul (MRO) demand when capacity is already stretched thin. Many MRO providers are transitioning to next-generation platforms but must now support older systems longer than planned.

#### Winners and losers

Airlines and their suppliers will face different challenges based on their specific geographies, suppliers, customers, and fleet mix. This environment will benefit some while creating acute challenges for others.

#### **Potential winners:**

**Narrowbody aircraft** will become increasingly important to suppliers and airlines as demand shifts to shorter-haul domestic and leisure travel. These aircraft are less affected by tariffs, cheaper to operate, and better aligned with rising low-cost carrier traffic.

**Non-US suppliers** gain a pricing advantage as tariffs inflate the cost of US-made equipment. European aircraft and engine makers-like Airbus and Rolls-Royce-will become more competitive, especially in Asia. The Commercial Aircraft Corporation of China (Comae) will benefit in the long term from US aircraft challenges in China due to tariff escalation, though Comae aircraft today feature many US-made systems and components.

**Aircraft lessors with midlife fleets** will benefit from increased demand. With fewer new deliveries, airlines will rely more heavily on extending current assets, boosting the relative value of midlife aircraft.



**Low-cost carriers** remain best positioned for long-term share gain in an environment in which cost pressure increases and demand shifts toward shorter-haul domestic and leisure travel, especially in Europe.

**Global MRO providers** with scale and flexible, geographically diverse capacity will win on turnaround times and price.

**Aftermarket suppliers** will benefit from rising demand and higher values for USM and PMA parts as operators work to keep older aircraft in the air.

#### At risk:

**Passengers** will feel the effects of reduced aircraft supply. Airlines will offer fewer routes, operate fuller planes, and face higher aircraft and maintenance costs, likely buoying ticket prices. Overall, air travel could become less accessible in terms of both availability and affordability.

**Carriers with wide body fleets and US-centric route structures** face pressure from rising costs, potentially lasting decreases in passenger travel demand, and reduced cargo demand.

**US-centric OEMs and suppliers** are more vulnerable to trade friction and retaliatory tariffs.

Operators with delayed aircraft deliveries or limited maintenance slots risk capacity shortfalls and higher operating costs.

#### A path forward

For airlines and suppliers, these are no easy answers for dealing with rising pressures and disruption. Companies can take four "no-regret" actions to help build resilience for the journey ahead.

**Assess exposure.** Airlines and suppliers must first understand the magnitude of their exposure to both supply chain dismptions alld tariffs, on a customer-by-customer and facility-by-facility basis. Leaders do in-depth analysis before making changes to capacity plans, supplier negotiations, and pricing.

**Plan for a range of scenarios.** Airlines should pressure-test fleet plans against a range of delivery delays and trade scenarios. Aircraft and component suppliers must prepare for varying production ramp-ups and shifts in customer demand. MRO providers should consider capacity plans in light of potential trade barriers and delayed nextgeneration platforms and engine production. Scenario planning identifies actions and investments that increase resilience under a range of market and regulatory outcomes.

**Invest in supply chain resilience and talent.** To bring supply back in line with demand, OEMs will need to prioritize strategic supplier diversification, digital transformation, and workforce hiring and upskilling. For example, digital tools can provide real-time visibility into Tier-2 and Tier-3 supplier risks. Investments in sourcing changes, design changes, and insourcing can help solve production bottlenecks.



**Stay on top of public policy.** Leadership teams need to develop a detailed awareness of trade policies, regulations, and infrastructure investments, and they should incorporate these issues into strategic decision making.

In a constrained sector, resilience becomes a powerful competitive advantage. Strengthened supply chains will help the industry continue its robust growth, delivering value to passengers, economies, and shareholders alike.

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