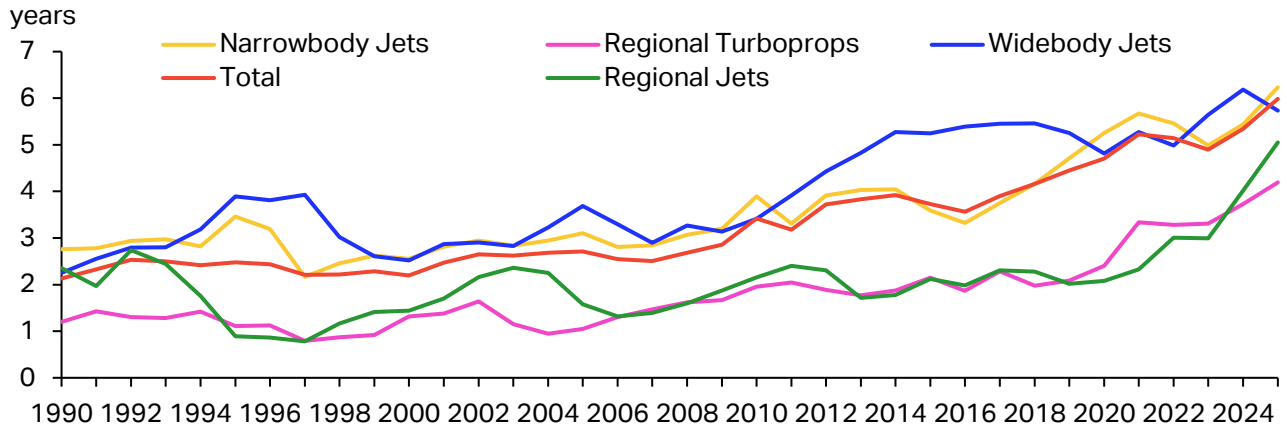
Chart of the Week

14 March 2025

The Growing Challenge of Capacity Planning

Aircraft average delivery times in years, by the year of delivery



Source: IATA Sustainability and Economics, Cirium

- Availability of aircraft continues to be constrained by supply chain challenges and production limitations. Manufacturers of both aircraft and critical components are still struggling to restore output to pre-pandemic levels following severe and lasting disruptions of global supply chains, as well as issues at the manufacturer level. As a result, despite global traffic surpassing 2019 levels last year, aircraft deliveries remained 30% below their pre-pandemic peak.
- The combination of strong demand and limited supply has extended waiting times for new aircraft significantly. Over the past three decades, lead times have ranged from 2 to 3 years, slightly longer for widebody aircraft and shorter for regional aircraft. However, this timeline has increased steadily since the late 2010s, reaching a record 5.3 years in 2024. This means that airlines are only now receiving aircraft that were ordered in or prior to 2019.
- With new aircraft in short supply, airlines are increasingly turning to the secondary market, but availability among lessors remains extremely tight, and lease rates have surged to record highs. In response, carriers have maximized fleet utilization, with average daily aircraft usage surpassing 8.5 hours for the first time ever in 2024. Passenger load factors also reached a historic high of 83.5% in 2024. These efficiency gains are critical in sustaining profitability amid supply constraints and will remain a key factor when delivery bottlenecks ease and airlines can resume capacity growth.
- By the end of 2024, the global order backlog had reached an unprecedented 17,000 aircraft, equivalent to 50% of the current fleet—far exceeding the historical norm of one-third. At current production levels, it would take 13.5 years to clear the existing backlog, meaning aircraft ordered today may not be delivered until nearly 2040—well beyond typical airline planning horizons. This makes short-term capacity planning extremely challenging, which could potentially lead to inefficiencies and higher costs.

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