

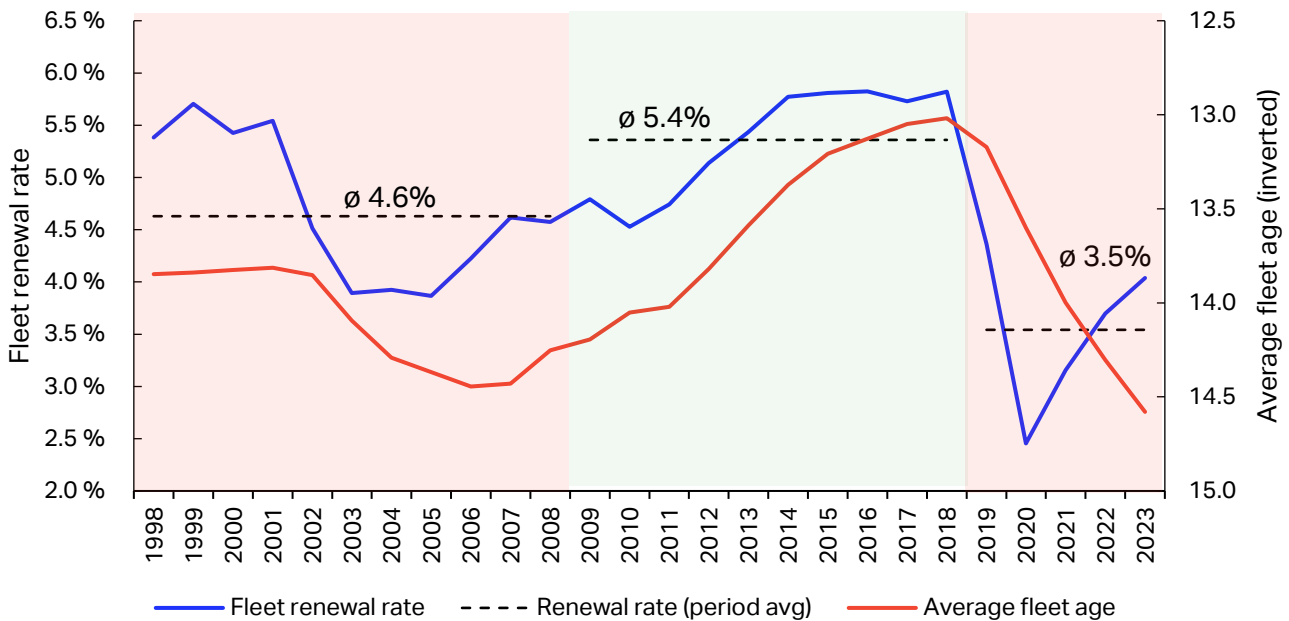


Chart of the Week

10 May 2024

Slow aircraft deliveries delay renewal benefits to airlines

World fleet renewal rate* (left, %), and average fleet age (right, inverted, years)



Source: IATA Sustainability and Economics, Cirium

Note*: renewal rate refers the value of number of delivered aircraft divided by the total number of fleet at the beginning of applicable calendar year.

- The pace at which new aircraft are delivered has slowed dramatically, firstly during the Covid-19 pandemic and since then, because of ongoing supply chain challenges. Deliveries plummeted by 50% in 2020 compared to the peak seen in 2018, and the global backlog climbed to 17,000 aircraft in 2023. As a result, the average age of the global fleet increased by over 18 months over the past 5 years, from just over 13 years in 2018 to 14.6 years in 2023.
- The drop in deliveries is in stark contrast to the orders placed for new aircraft, which have risen sharply. In the single year of 2023, as many as 4,745 aircraft were added to order books. However, given the bottle necks in the supply chain, these purchases will take longer to impact the average age of the global fleet, and by the same token, delay the benefits to the airlines in terms of lower fuel consumption and CO2 emissions.
- The renewal rate is the number of delivered aircraft over the total fleet size (in service and in storage, see blue line in chart). That rate rose from 3.9% in 2005 to 5.8% in 2018, allowing the fleet to rejuvenate apace over that period. Most of the new aircraft went to Asia Pacific, the Middle East, and Latin America, which airlines received three times more aircraft than in the previous decade. A younger fleet, new engine options, and higher seat density led to improved fuel efficiency. During this period, fuel consumption per available tonne kilometer (ATK) decreased by 15%.
- Had the renewal rate stayed above 5% also during the 2019–2023 period, around 3,000 additional aircraft would have been delivered. This theoretical shortfall will only be partially met by the 1,600 aircraft deliveries expected in 2024, equal to just 4.6% of the global fleet. As big a role as fleet renewal can play in the decarbonization of air transportation, it cannot produce results any faster than the aircraft can be delivered.

Sustainability & Economics

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