Global aviation outlook: Air traffic soars as supply challenges linger

Leisure travel is soaring once again, Asia is returning as a key growth driver, and air passenger traffic is now exceeding pre-pandemic levels. But the bigger picture isn't quite as positive - and as lingering supply challenges continue to throw a spanner in the works, efficiency progress isn't moving along quite as quickly as hoped

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Airline demand remains solid after revanche travelling

Airline reports and bookings indicate that air travel demand remains strong through 2024, despite serving most post-pandemic pent-up demand. Labour markets are still tight, and a positive factor for spending is that purchasing power should recover on the back of rising wages and lower inflation. Figures for the first quarter of 2024 indicate strong growth for revenue passenger kilometres (RPK) compared to the subdued start of 2023. This direction is confirmed by 10% higher global jet fuel consumption until mid-April.

Domestic traffic upfront in recovery, international traffic catches up

Index global passenger revenue kilometer (RPK) (2019 = 100)

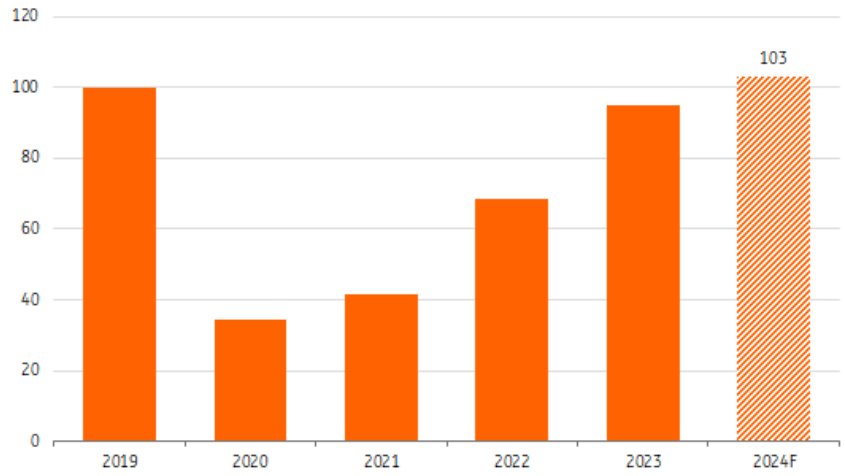
Source: IATA, ING Research

Passenger volumes exceeds pre-pandemic levels despite multiple challenges

People across the world are seemingly keen to travel and prioritise their trips despite more expensive tickets. And the global population continues to grow. The global branch of the International Air Transport Association expects global airline demand (in RPK) to grow at almost 10% in 2024 compared to the previous year, including the recovery of long-haul journeys. However, the growth figure may end up somewhat lower due to additional supply constraints at Boeing as airlines struggle to accommodate all demand with available seats. Nevertheless, passenger traffic will exceed pre-pandemic levels in the full year of 2024, as also signalled by airports.

Total global airline volume to exceed pre-pandemic levels in 2024

Index passenger revenue kilometer (2019 = 100)



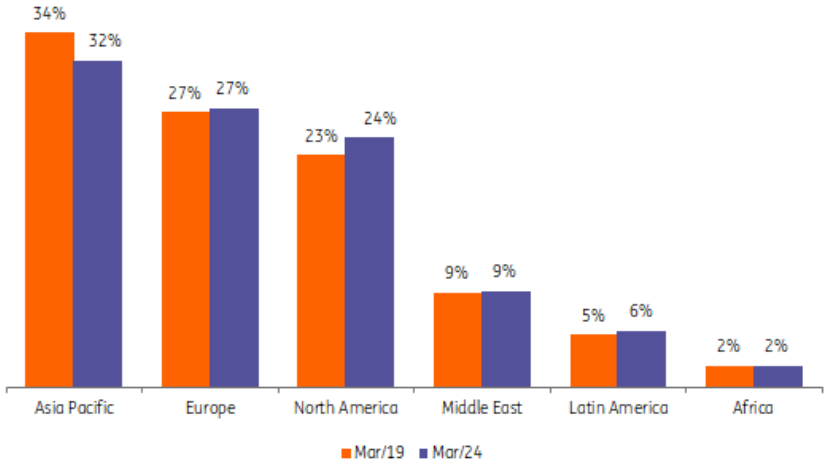
Source: IATA, ING Research

Domestic travelling leads the recovery, but international travelling drives 2024 demand

Domestic travelling within large countries (40% of the global market) was the area first to recover, with its average already hitting pre-pandemic levels last year. But differences across regions are prevalent. In the US and China, traffic figures started 2024 beyond pre-pandemic levels, while airline travelling in a few large countries – including Australia, which lifted its long-lasting travel restrictions in 2022 – are still on a recovery track. Domestic travelling in India and China will continue to push global airline growth (more on this below). But more importantly, lagging international (and intercontinental) travelling is returning with more strength, and this will propel airline mileages in 2024.

Asia, the world's largest airline market, still has room for recovery in early 2024

Market shares global regions (passenger revenue kilometre)



Source: IATA, ING Research

The East returns: Asia set to boost global aviation growth in 2024 and beyond

As the world's largest airline market, the Asia-Pacific region was the only region about to close a noteworthy gap in passenger traffic in early 2024. But since China fully reopened in early 2023, the market has been picking up quickly and large carriers such as Qantas and Cathay Pacific are catching up. The region will be a strong driver of global development in 2024, returning with double digit growth figures as a key growth engine. Without the pandemic plunge, the Asian market would have been even more prominent – and its rebound will therefore likely continue into 2025. Meanwhile, passenger growth rates in both Europe and the US are expected to remain in the low single digits.

Eagerness to travel combined with a growing population turns India into powerhouse for future airline growth

Just 10% of the global population – in upper-middle and higher income groups – is responsible for almost 90% of passenger traffic. As such, there's a strong correlation between airline travelling and GDP and household income. Particularly in Asia, it seems a propensity for travelling is on the rise. With an expanding middle class and improving household incomes, the customer base for airline travel is swelling. This is even more important than population growth. Despite environmental concerns, younger generations appear to travel more often than older generations, which also adds to the potential in countries such as India and Indonesia.

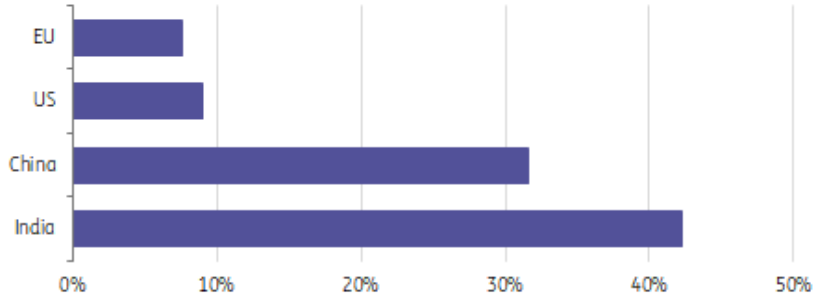
India is set to deliver strong structural growth figures, and airlines are preparing for this with historically large orders for new aircrafts from carriers Indigo and Air India. The country plans to open a range of new airports, and strategically located countries – such as the the UAE, with the world's second largest airport in terms of passenger traffic in Dubai – are

anticipating strong transit passenger growth from Asia.

The long-term global growth outlook (20 years) has generally been tempered in the post-pandemic era to a range of 3-4% annually instead of 5-6%, with Europe seeing the lowest growth figure. One of the main reasons is that flying is set to become significantly more expensive with rising costs of emissions.

People in Asia start to fly more often...

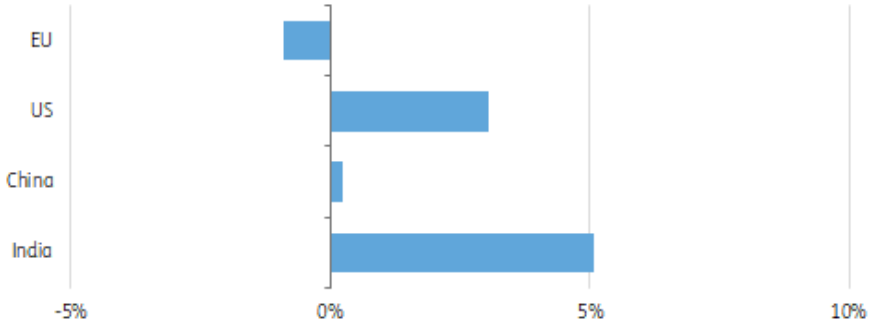
Expected growth trips per capita 2019-2025



Source: IHS, Airbus, Worldbank, ING

...and especially in India, the population is also growing quickly

Expected population growth 2019-2025



Source: Worldbank, ING

Business flying is back, but times are different

Business travelling is one of the reasons why airlines adapted their coverage and networks still look different. Corporate travelling is still highly important for flag carriers such as British Airways (IAG) and slowing their recovery. Nevertheless, its putative demise has been overrated. Video conferences have been widely adopted during the pandemic, but old business habits still return when face to face presence is deemed important. Business travelling is under review among several large corporates adopting CO_2 targets and reporting on business travel emissions, but policies differ.

Increased costs are also a point of corporate attention. Global volumes still hovered at around 70% of pre-pandemic levels in the full year of 2023 – but the recovery is still underway, as pointed out by the Delta airlines corporate survey as well as airline reports. In the meantime, several airlines have adjusted to lower business traffic by offering premium economy class tickets to private consumers to keep seats occupied.

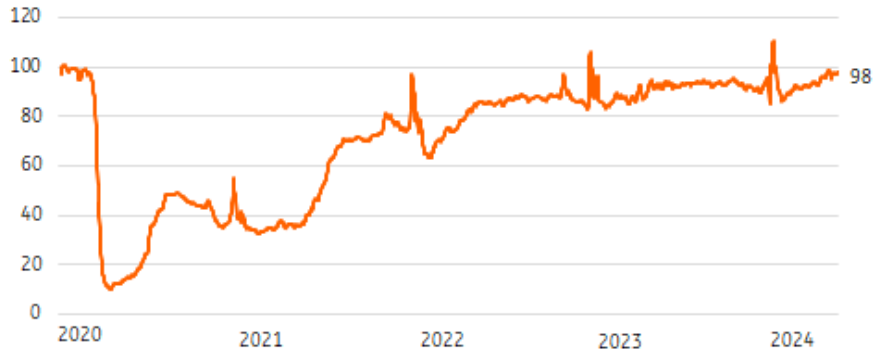
European airlines expected to see continued demand as well as threats down the line

Continental European travelling has eventually recovered faster than expected, which is reflected in passenger figures of low-cost continental carriers such as Ryanair and Wizz Air. Demand is set to remain strong through the summer season, with the Olympics in Paris and the European Championship football in Germany both providing support.

Generally, travellers seem willing to pay higher fares – but significant ticket tax increases imposed by European countries are having at least some dampening effects, especially for low-cost carriers. Germany, for instance, raised its ticket tax for short haul flights by almost a quarter in 2024 to €15.53 and €70.83 for long haul flights.

European flight traffic is crawling up, but still slightly below pre-pandemic levels

Index flights from and to European countries* (index 2019 = 100)



Source: Eurocontrol, ING Research *Eurocontrol area, 7dma, last datapoint 14/05

The number of flights in Europe still hovers below pre-pandemic levels, which illustrates the crackdown on capacity growth (more below). Against this backdrop, operational challenges also play a critical role in keeping capacity afloat. Punctuality is still relatively poor, with just over 65% of European flights departing on time in 2023 compared to almost 73% in 2019. Several European airports and carriers encountered double digit cancellation rates, which also reflects the impact of more extreme weather events.

Air travel emission concerns rise, but the say-to-do gap lingers

Despite increased climate awareness, the reality is that few people seem willing to shift away from air travelling – especially the more frequently travelling younger generation. Even in Europe, which

is often said to be leading the energy transition and pushes rail on city connections below 750km as an alternative, people don't seem to restrain their air travel very much regardless of flight shame.

In the Netherlands, for instance, 59.4% of those over 18 and under 35 have travelled by air in 2023, compared to 31.6% of people over 55 and under 75. Just 6.6% of the first group is willing to stop flying, compared to 14.5% of the latter. And those who say they'd reduce air travelling not always do so, a phenomenon known as the 'say to do gap'. Pricing in the GHG impact could eventually force people to pay for emissions and include this in their decisionmaking. But on a global scale, full emissions pricing (comparable to Europe's ETS) is still far away.

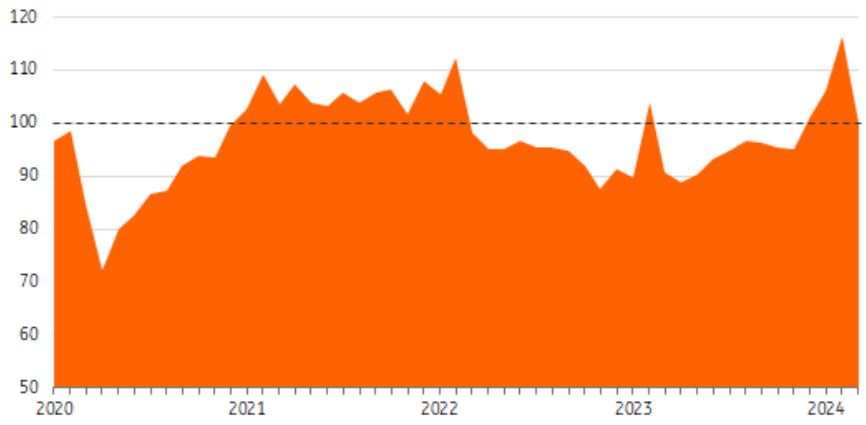
Air cargo volumes benefit from trade and e-commerce recovery

Airlines ordered new freighters and opted to turn passenger aircrafts into freighters amid soaring demand during the pandemic. It even triggered new players such as container liners CMA CGM, Maersk and MSC to enter the airfreight market. This turned into overcapacity when consumers shifted spending back to services, and intercontinental passenger traffic returned to the market in the run up to 2023 (belly capacity). This also forced highly elevated freight rates to came down. In April 2024, Asia eastbound and westbound rates (Baltic Exchange) still traded 50-70% higher at $4.5-5.5 compared to April 2019. On the other hand, transatlantic rates have slipped below pre-pandemic levels despite years of high inflation. After an extraordinary period, the contribution of aircargo to airlines' profitability dropped, but combining passengers and freight efficiently could still lift profitability in 2024.

The outlook for cyclical airfreight has turned brighter as world trade has picked up. Fast-growing cross border e-commerce (such as via webshops like Alibaba and Temu) supports growth more structurally. Another factor in play is supply chain frictions. As container shipping routes avoided the Red Sea region at the end of 2023, shippers turned to air cargo as a work-around for sensitive shipments. Although this is temporary, supply chains remain vulnerable, meaning that shippers of higher valued containerised products require air cargo as back-up.

Aircargo volume rebounds early 2024 signaling trade recovery, but also role as alternative option for particular seafreight

Index global development of aircargo volume in ton/km (CTK) (2019 = 100)



Source: IATA, ING Research

Solid demand, but supply issues are still causing headaches

Airline demand remains strong all in all. Capacity constraints do continue to provide an ongoing concern for airlines, curbing growth plans and putting operations to the test.

How do selected airlines perform?

Lufthansa

In 2023, Lufthansa achieved improvements in both revenue and operating profits, which were driven primarily by the continued high demand for air travel. Throughout the year, Lufthansa Group's airlines carried a total of 122.5m passengers, up 20.4% year-on-year. On average in 2023, the airline offered 84% of its 2019 capacity. The load factor increased by 3.1 percentage points to approximately 83%.

In 2023, Lufthansa's revenues reached €35,422m, up 14.7% YoY. Its adjusted EBIT was €2,682m, up 76.4% YoY. The company's adjusted EBIT margin improved to 7.6% in the full-year 2023 from 4.9% in the previous year. The results also benefitted from a strong performance from Lufthansa Technik, with demand for maintenance, overhaul and repair services remaining high. In the full-year 2023, Lufthansa generated adjusted free cash flow of €1.8bn, down from €2.5bn in the year prior.

In the first quarter of 2024, the company had a total revenue of €7,392m, up 5.3% YoY, and an adjusted EBIT loss of €849m (higher than -€273m in the first quarter of last year). During the reported quarter, Lufthansa's operating expenses reached €9,011m, up 13.4% YoY, including staff costs of €2,254m, up 17.5% YoY. The airline mentioned that strikes weighed on its first quarter performance but that the outlook for the important summer season remains positive.

Lufthansa plans to increase available capacity in the second quarter of 2024 to 92% of its pre-Covid levels, which is lower than originally planned due to further investments in operational stability and delayed aircraft deliveries. In the second quarter of 2024, the company expects that adjusted EBIT will be below that of the comparable quarter in the previous year. For the full-year 2024, Lufthansa aims to achieve a capacity level of around 92% of its 2019 level. The company expects an improvement in operating profits year-on-year in the second half of 2024, with the full-year 2024 adjusted EBIT target at €2.2bn. During the current year, Lufthansa expects to generate adjusted free cash flow of at least €1bn.

IAG

In 2023, IAG experienced strong and sustained demand for air travel, in particular in the leisure and premium leisure travel segment. In 2023, the airline group had a capacity growth of 22.6% YoY, focused on the company's core North Atlantic and South Atlantic markets. Overall capacity was at 95.7% of pre-Covid levels in 2019, including at 98.6% of the 2019 levels in the fourth quarter of last year. In the reported year, IAG's passenger unit revenue was up 8.2% YoY, supported by the strong leisure and premium leisure traffic recovery, while business traffic saw a somewhat slower recovery. Non-fuel unit costs declined by 4.4% YoY due to the passenger capacity increase and cost saving initiatives, offsetting ongoing cost inflation and investments in customer offerings and systems, while

fuel unit costs were up 0.7% YoY.

In 2023, the airline group had a total revenue of €29,453m, up 27.7% YoY, and an operating profit before exceptional items of €3,507m, up 181.2% YoY. The respective adjusted operating profit margin was 11.9% in the full-year 2023, up from 5.4% in the previous year. In the full-year 2023, IAG reported free cash flow of €1,320m, up from €979m in the full-year 2022.

In the first quarter of this year, IAG had total revenues of €6,429m, up 9.2% YoY, and operating profit before exceptional items of €68m (up from €9m in the first quarter of last year). The company noted that the first quarter results were underpinned by strong demand across the group's airlines over the Easter holidays and in the core markets of North Atlantic, South Atlantic and intra-Europe. IAG's management commented that the company was well-positioned for the summer, with high demand for travel remaining a continuing trend.

In terms of the outlook for 2024, IAG aims to continue to grow capacity by around 7% YoY and expects its non-fuel costs to increase slightly during the current year. The company also aims to generate significant underlying free cash flow during the year.

Ryanair

In late January, Ryanair released its results for its third quarter and nine months ending 31 December 2023. During the first nine months of its financial year, the airline's traffic increased by 9.9% YoY, and its load factor was 94%, flat YoY. During the nine months to 31 December 2023, Ryanair had revenue of €11.3bn, up 26.2% YoY, and profit after tax of €2.2bn, up 38.6% YoY. The company had net cash of €0.15bn as of 31 December 2023.

In terms of outlook, the airline continues to target passenger traffic of approximately 183.5m customers in its full-year 2024 (ended 31 March 2024). Ryanair also noted that delays in aircraft deliveries cut its full-year 2025 traffic expectations to 200m (from 205m previously). The company targets profit after tax of between €1.85bn and €1.95bn for the full-year 2024.

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Why supply constraints are clouding the skies for airlines

Our take on the impact of ongoing supply issues in limiting growth and slowing sustainability progress

A partially disassembled Pratt Whitney PW1500G engine of the Airbaltic Airbus A220 aircraft

Global airline fleet hasn't managed to keep up with demand and that's not over yet

Global airline demand has outpaced fleet capacity development, which puts growth plans for airlines under strain. This is reflected in the number of parked aircrafts, which is continuously sliding. Aircraft capacity struggles are expected to drag on through 2024 and its peak season. Capacity constraints force airlines to adjust flight schedules – Ryanair, for instance, announced that it is planning to serve 200m instead of 205m passengers in 2024. This is still around 10% growth, though less than previously anticipated. The constraints also limit the ability to restore and grow intercontinental networks. Flag carriers such as Lufthansa and KLM (including Transavia) revised available seat capacity downward for the full-year 2024.

The nature of aviation understandably puts safety above everything else, and multiple supply chain issues and incidents currently limit aircraft availability. A complicating factor for airlines is the limited flexibility across the aviation sector as pilots, cabin crew and maintenance personnel are also educated for a specific type of aircraft.

Connectivity lags as airline volume recovered in a different style

Airlines across the world downsized their networks throughout the pandemic, and this hasn't been fully restored yet. This means that current air traffic is concentrated within less routes. In Europe, the number of direct and indirect destinations at airports ended up 13 percentage points higher in 2023, but still lagged behind its 2019 figure (at 84% of this level). This put a drag on flight activity (sitting at 91.5% in 2023).

Moving forward, networks will gradually recover further as flag carriers re-introduce more long-haul destinations, but a full recovery will take more time amid current supply and demand dynamics. And of course, the geopolitical environment has also changed the map of airlines, with flights to Russia from the West suspended and flights to Israel and Iran affected by cancellations.

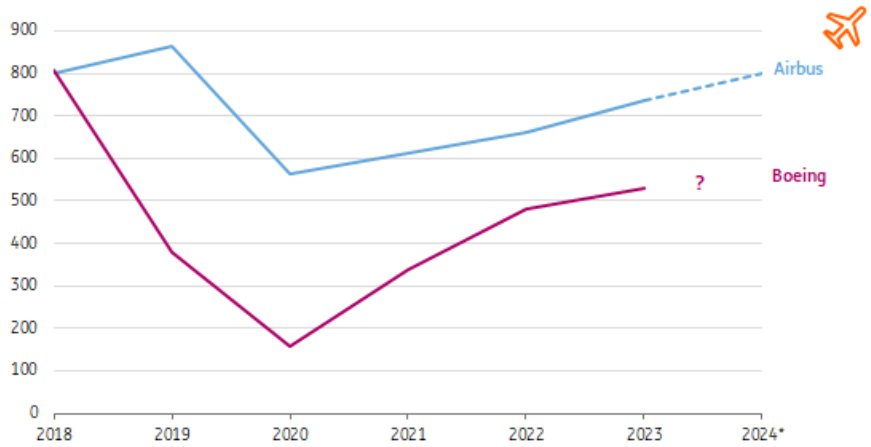
Unlike other sectors, supply chain shortages remain prominent in the highly regulated aerospace industry

The complex aircraft production supply chain involves highly specialised certified players. Therefore, diversification or switching suppliers in case of bottlenecks often isn't possible. On top of that, supply chain partners scaled back massively during the first phase of the pandemic, when the future was highly uncertain. The so-called bull-whip effect accelerated the downturn across the supply chain, and as a result, rescaling is now much more time consuming than it is in other sectors.

The industry also facing shortages of highly qualified skilled personnel. Both engines and other components such as seats with digital devices still have long lead-times. This means that engine makers such as CFM (GE/Safran), Pratt & Whitney and Rolls-Royce, but also parts suppliers such as RTX are struggling to keep up with demand. This limits growth potential for production of new aircrafts, but retrofitting and refurbishing programmes for older aircraft are also impacted next to regular maintanance progammes.

Deliveries of new airplanes at Boeing still way below pre-pandemic levels, while Airbus is still in recovery

Number of delivered commercial airplanes by manufacturers Airbus & Boeing



Source: Company reports, ING Research *forecast

Which specific supply side hiccups will weigh on available capacity in 2024 and 2025?

- Pratt & Whitney engine checks and retrofits

In late 2023, engine manufacturer Pratt & Whitney announced extra inspections for turbofan engines installed in Airbus A320NEOs after a risk of cracks in the engine appeared. This will include a total of 600-700 aircrafts in operation each being grounded for up to ten months in batches. This will take out an expected 350 units in 2024 alone, which affects airlines operating aircrafts powered with these engines, such as Jetblue, Wizzair and Air New Zealand. In total, at least 1.5% of the global fleet capacity will be taken out of service, but for the individual airlines affected, it's going to be much more. The impact of this issue will also spill over into 2025, keeping maintenance personnel scarce and the engine company busy, limiting the ability to ramp up new production.

- Boeing production limitations

Accidents with the B737 MAX 8 aircraft in 2018 and 2019 led to a steep production decline at Boeing in 2019, which accelerated during the pandemic. The breakaway of a door panel on a Max 9 flight early 2024 created another setback and forced the US Federal Aviation Authority (FAA) to require production limitation of the B737 Max aircraft to 38 per month. Supplier issues have also kept deliveries low in the first part of 2024. On top of this, B787 quality controls are also being investigated. Consequently, upscaling production isn't possible and instead, production almost halved again in the first quarter of 2024. For airlines such as United Airlines, Southwest and Ryanair, with significant ranges of the aircraft on order, this means that deliveries are being postponed. This disrupts flight schedules and dents growth potential in 2024, especially during the peak season. Southwest, for example, expects just 20 of the previously scheduled 46 aircraft deliveries in 2024. With production at Boeing have been subdued for four to five years, the production backlog has already hit 3.000 aircraft and continues to mount, while orderbooks have swelled.

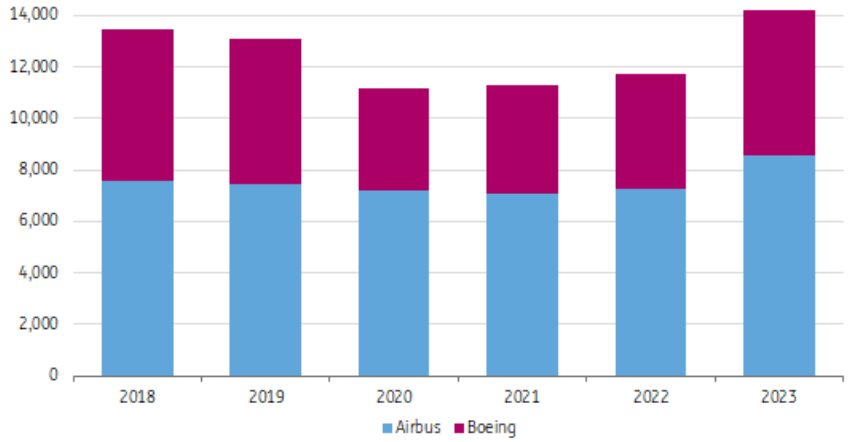
- Boeing groundings in the US (FAA)

Another capacity factor is the immediate operational impact of incidents at Boeing. United Airlines, Southwest, Alaska Airlines are among the airlines hit by the Max 9 issue in 2024. Other incidents and concerns about quality and security procedures of 787 Dreamliner production added to the scrutiny of the aviation authority. But so far, this isn't impacting airlines outside of the US.

Commercial aviation industry is largely dominated by Airbus and Boeing. Embraer is making regional aircraft up to 146 pax. Russia produces its own aircraft within de UAC and Chinese Comac has delivered a larger civil aircraft (C919), and large domestic orders from Air China and China Southern.

The combined backlog of Airbus and Boeing has hit a record high

Orderbook Airbus & Boeing: number of commercial airplanes, end of year



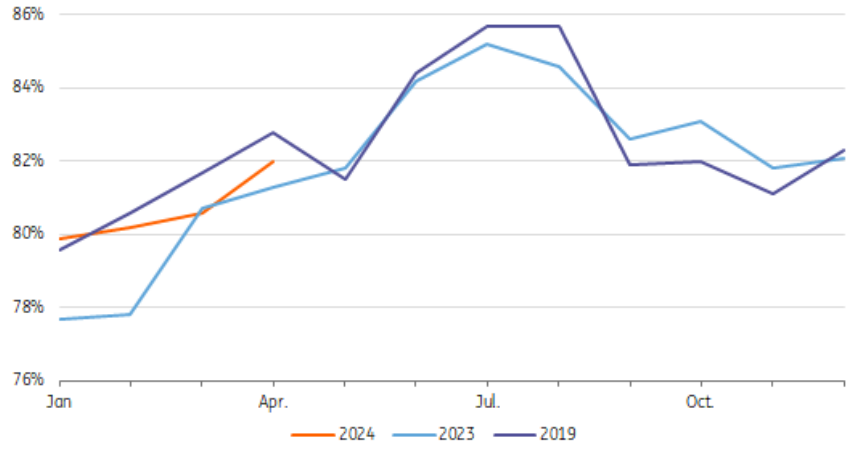
Source: Company reports, ING Research

Load factors are hitting pre-pandemic levels and airlines are challenged to raise the bar

Aircraft load factors have returned to their 2019 seasonal highs and provide an indication of capacity tightness. Load factors for long haul flights are usually lower than on short haul trips. Strong passenger figures of low-cost carriers helped to raise this figure. In Europe, EasyJet's load factor already neared 90% in the full-year 2023, and is inching closer to the 93% seen in 2019. Ryanair hit 93%, which is close to its natural max. Nevertheless, airlines are challenged to further raise the bar, especially flag carriers. But in practice, this is also a game of price dynamics. Especially in the US and Europe, where load factors are already relatively high, it will be challenging to further increase occupation rates.

Passenger load factors returned close to historical highs (2019)

Average monthly global passenger load factors (PLF) in %



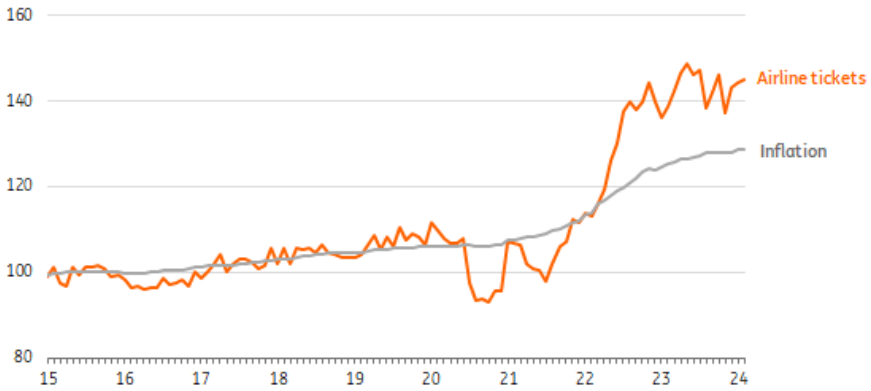
Source: IATA, ING Research

Run on aircraft capacity send lease and rental rates up

Close to 60% of the global aircraft fleet is leased out and owned by companies such as Aercap, SMBC and Avolon. Airlines are currently looking look into lifetime extension and many lease terms are extended to keep flying schemes afloat. Demand for older, used aircrafts is also going up. On the back of this, used market prices and lease rates have risen significantly, especially for narrowbodies. As such, rates of the A321 have risen some 18% in early 2024 compared to a year earlier and rates for a B737 MAX 8 have also surged 19% to $400,000 a month. This direction is expected to continue in 2024. With a delay, leasing rates for widebody aircraft such as A350/B787 have also recovered.

Air fares in the EU outpace inflation amid ongoing aircraft availability constraints, taxes and sustained demand

Index ticket prices vs consumer prices (HICP) in the EU (2015 = 100), seasonally adjusted



Source: Eurostat, ING Research

Air fares to remain elevated amid supply constraints

Weak demand pushed air fares development below figure inflation in 2020 – but this quickly turned around in 2022 as the world emerged from the pandemic. The combination of subdued capacity and strong demand fuelled ticket prices, and higher jet fuel prices added to that.

In Europe, prices are still outpacing inflation by some 15% in early 2024. Air fares are globally under upward pressure, but higher duties also play their part (especially in Europe). This dynamic marks a different era, as increased competition of low-cost carriers previously weighed on rates for a long time.

Ticket taxes and climate policy pushes ticket prices permanently higher

In several European countries, (higher) ticket taxes and an increased application of the Emissions Trading Scheme (from 25% in 2024 to 100% in 2026 for intra-European flights) will continue to add to higher prices, with fares already moving far beyond inflation figures. The internalisation of external factors will likely continue to grow moving forward, which will lead to structurally higher fares and more real pricing.

SAF blending adds to costs and ticket prices

An increasing number of airlines secured sustainable aviation fuel (SAF) for blending, and this will continue in 2024. Frontrunning airlines target a blend ratio of 10% in 2030 and the EU, the UK and several individual countries require a minimum of 6%-10%. KLM was ahead globally with a blend rate of 1% in 2023 while the global average was just 0.2%. This has to increase rapidly to reach target levels.

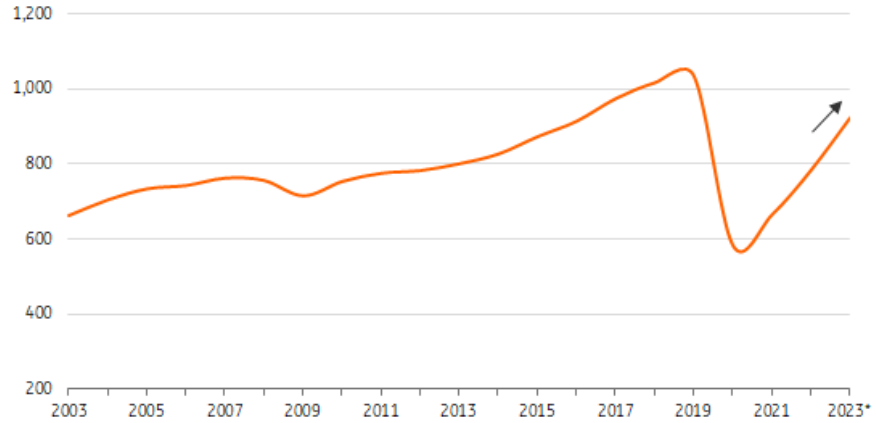
SAF trades around 2.7 times the price of conventional jet fuel in March, and fuel consumption usually covers 15-25% of total costs. We don't expect that the cost of SAF will drop to jet fuel levels anytime soon, which means a targeted blend rate of 10% in 2030 being aimed for by airline coalitions Oneworld group and Clean Skies for Tomorrow eventually adds 3-4% to ticket prices.

Operational struggles challenges airlines finances, but demand still provides momentum

The world's leading airlines roughly returned to pre-pandemic operating profits levels in 2023. And against the backdrop of capacity constraints, pricing power remains with carriers. At the same time, cost pressure remains high, with wage costs (often the largest cost fraction) likely continue rising in 2024-2025 as collective wage increases at Lufthansa suggest. Operational challenges due to delivery delays and extra maintenance – as well as more cancellations due to extreme weather, geopolitics and labour tensions – will also weigh on profitability in 2024. Nevertheless, we may see a slight uptick in operational margins.

Global CO2 emissions in aviation continue to bounce back

CO_2 emissions in global aviation (in MT)



Source: IEA, ING Research *preliminary

Fleet renewal delays drives emissions further up in 2024

Global GHG emissions in aviation fell steeply over the pandemic plunge, but have seen a rapid reversal since demand returned. In 2024, emissions will likely end up close to pre-pandemic levels. SAF blending has kicked off, and operational efficiency draws more attention to decarbonisation strategies – but the most important pillar for airlines, accelerated fleet renewal, is severely lagging. This slows the reduction of emissions per seat/kilometre.

The new generation A350 and B787 Dreamliner, for instance, have significantly lower fuel burn specifics than their predecessors A340 and B777. Airlines are now forced to keep older aircrafts in the skies, which impacts sustainability progress as the fuel consumption of new generation aircrafts is usually 10-25% lower.

Geopolitical tensions lead to inefficiency and extra emissions

The global skies continue to face inefficiencies due to sanctions and political tensions. Airline trips are hardly ever executed in a straight line from A to B, but avoiding various air spaces increasingly complicates things. Continued detours around the massive Russian airspace (with a fifth of Europe's sky effectively closed) extend flight durations between Asia and Europe by up to four hours between Amsterdam and Tokyo. Tensions in the Middle East have also forced additional rerouting. Altogether, this leads to longer miles and higher emissions than seen previously.

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