

Aviation Market Snapshot Q3 2022



Key market insights

Non-linear recovery continues

The recovery in air traffic demand that began in 2021 has continued, albeit in a non-linear fashion, with pauses for new Covid variants and continued restrictions in certain countries hampering air travel, notably China. In aggregate, global air traffic figures show a close to 70% YoY growth in August, and are now 74% of pre-pandemic (August 2019) levels.

The pace of the recovery appears to be slowing with signs that the resurgence in mature markets may have peaked for now and that any further recovery will depend on the reopening of China and further improvements in Asia. Moreover, macroeconomic indicators are pointing to an increased risk of recession in many developed countries. The cost outlook for airlines is uncertain, with fuel, inflation and increasing interest rates all key drivers to increased costs.

Recently Cirium updated its global passenger recovery forecast, noting continued passenger traffic recovery and achievement of 2019 traffic volumes on a global basis to occur in October 2023. The forecast also notes that by Q2 2023, the global passenger in-service fleet will exceed 20,000 aircraft, equalling the pre-pandemic fleet. The assumptions, however, do not include the impacts of the currently gloomy global economic outlook. Hence, there is downside risk in the projection.

Significant factors influencing the recovery

Whilst the strong demand for air travel continues, airlines face a challenging mix of economic, geopolitical and environmental uncertainties. Recession fears in Europe and elsewhere present a risk for the recovery in passenger demand. Will the bounce in pent-up demand that airlines have benefited from over the summer continue into the winter or will the squeeze on disposable income result in cuts to air travel?

Economic challenges

Rising inflation in many countries took an even sharper upwards turn in 2022. This was partly a consequence of rising energy costs due to supply disruptions arising from the war in Ukraine; also wider supply-chain issues caused by the conflict and prevailing Covid issues.

Higher inflation is driving lower economic growth expectations. GDP growth expectations for 2022 have significantly weakened throughout the year. In January, global expectations were a 4% increase over 2021, whilst the latest projections have reduced this to 2.8%; likewise, expectations for 2023 are dampening, from a 3% growth forecast in January 2022 to 2.1% in October¹.

Lower economic growth typically drives lower passenger demand, as slowing GDP weakens advances in personal and corporate wealth. Coupled with the impact of inflation and increasing ticket prices, which might also dampen demand, airlines could face an uncertain demand environment.

On the positive side, the slowing economy has driven oil prices lower during 2022, with Brent crude² falling from over \$120 per barrel (Mar-2022) to below \$90 per barrel (Sep-2022), leading to declines in jet fuel prices, despite high refining costs.

Seasonal changes in Europe

European flight capacity data indicates that the drop off in the number of flights operating in September 2022 is occurring at a faster rate than pre-pandemic 2019 levels (6.7% versus 3.1%³). However, despite this decline, some European airlines report strong sales heading into the winter and project pre-pandemic capacity levels. Air France, for example, predicts to operate its entire fleet through to March 2023, with a capacity level close to that of 2019. Ryanair recently disclosed that it will add extra capacity in the winter and its December UK schedule is now ~4% higher than pre-pandemic December 2019. The carrier is offering many new winter routes that did not exist before the pandemic. British Airways, on the other hand, has slashed capacity, citing capacity constraints at airports.

1. Economist Intelligence Unit
2. Statista
3. Cirium

East Asia awakening

Many commentators are expecting a re-opening of China in Q1 2023. The region's significance is highlighted by the 74 million passenger journeys in 2019, which fell to less than 2 million in 2021⁴.

In early-October, Japan announced the reinstatement of visa-free travel to dozens of countries, ending some of the world's strictest Covid border controls. This followed its recent scrapping of daily arrival caps and the lifting of testing and self-quarantine for inbound travel. It is anticipated that this will further boost air travel in the region.

Thailand reopened borders and relaxed quarantine rules at the start of the summer, to re-ignite one of the world's largest tourism markets. Thailand attracted 40 million foreign visitors in 2019, however, only 2.1 million visited during the first half of 2022. For 2023, the Thai tourism ministry expects between 18-30 million foreign visitors (depending

mainly on China's re-opening, as Chinese tourists accounted for nearly 30% of all foreign visitors to Thailand pre-crisis). India is also expected to emerge as a growing source of tourism.

Business travel resurgence

In the Americas, airlines are reporting a return of the corporate traveller. In particular, anecdotal evidence suggests the SME segment is approaching pre-pandemic levels and in the large corporate segment: financial services; consultancy and accountancy are recovering fast, while technology companies are lagging (possibly explained by the fact that many tech companies have yet to impose a return to office policy). This strong demand has translated into higher load factors and fares.

In Europe the return of corporate travel is slower paced. During Q1 2022, Lufthansa's carried circa 20% of its pre-pandemic level of corporate passengers. That doubled to ~40%

by June and based on bookings is heading towards 50-60% in Q3 2022. Management is targeting a 60-70% recovery by year-end, and a new normal of ~80%, factoring in expectations that some corporate demand will be permanently lost to video conferencing and other new work practices⁴.

4. Cirium

"The aviation industry has demonstrated remarkable resilience post-Covid as the recovery trend has continued throughout 2022. Macroeconomic storm clouds are gathering as all eyes turn to a reawakening East Asia to continue to fuel the resurgence. Meanwhile production, supply chain and regulatory issues at Boeing and Airbus have insured supply-side discipline. Parked aircraft are returning to the skies, with the single aisle parked inventory at 14% of the total fleet, only 5 points higher than at the start of the crisis."

Nick Cowney Aviation Finance



"The aviation sector enters Q4 facing strong headwinds. The simultaneous increase in inflation, jet fuel and the strength of the dollar place further stress on airline balance sheets. While passenger numbers and air traffic are expected to continue their recovery from the pandemic lows, airline yields are likely to suffer as carriers find it harder to pass on increased costs. US-based carriers and others with a high proportion of USD revenues are less exposed to pressures caused by the strong dollar."

Aircraft lessors must adapt to higher cost of financing and the public ABS market remains closed. In time, we expect the rise in rates and inflation to filter through to higher aircraft rentals and value for new built aircraft. Investec continues to be selective in deploying capital, focusing on airlines with robust financials and business models, and opportunities with optimised risk-return profile in the current environment."

Derek Wong Head of Aviation Debt Fund



Trends

Global air travel continued its strong recovery trend in August, despite recessionary fears, the squeeze on disposable income and travel restrictions in China. Air traffic, as measured by Revenue Passenger Kilometres (RPKs), an indicator of global passenger demand, grew by 68% YoY. Passenger numbers are now ~74% of pre-pandemic August 2019 levels, an improvement of ~11% from April.

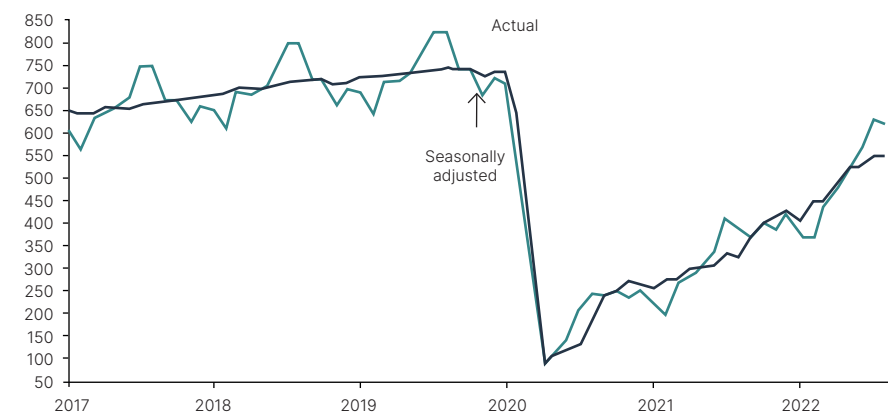
Domestic air travel has seen RPKs accelerate during the quarter, driven by increasing traffic in Asia Pacific, particularly China. Domestic traffic in August is now 85% of pre-pandemic (August 2019). The performance of key domestic markets accelerated across regions. China ramped up during the period with traffic increasing 45% YoY in August, however it remains 38% below its pre-pandemic (August 2019). Post restrictions easing a swift recovery in the Chinese market is anticipated, mirroring prior trends. US domestic traffic remains stable and close to full pre-pandemic levels. In Brazil domestic traffic was up 26% YoY and has now exceeded pre-pandemic levels. RPK growth accelerated in Japan and Australia reflecting the lifting of travel restrictions and rising consumer confidence*.

International air travel recovery remains strong across all regions, with RPKs increasing 116% YoY in August. Regionally, airlines in Asia Pacific recorded the strongest YoY growth, albeit coming off a low base. However, the recovery is still lagging in this region. Airlines based in Europe have reached 79% of pre-pandemic levels and travel within Europe exceeded 2019 levels in May and June. North American airlines are the best performers at 85% of 2019 traffic*.

*Sources: IATA Economics, IATA Monthly Statistics

AIR PASSENGER TRAFFIC (RPKs)

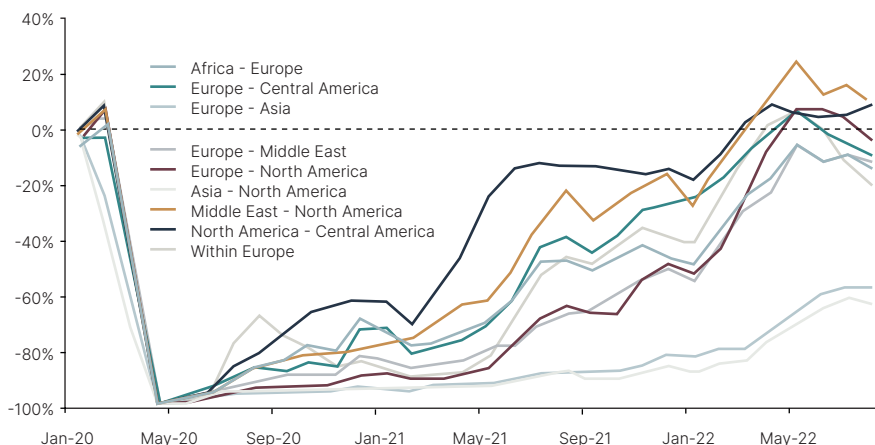
Industry RPKs (billion per month)



Sources: IATA Economics

INTERNATIONAL RPKs BY ROUTE, FROM PRE-COVID 2019

Seasonally adjusted international RPKs YoY% change v2019



Sources: IATA Monthly route area statistics

IATA noted that the recovery has proceeded at a similar pace for both premium and economy (including premium economy) classes. Seat capacity, as measured by Available Seat Kilometres (ASKs), has continued to ramp-up, increasing 44% YoY in August, following the demand recovery. Capacity is now 23% below pre-pandemic levels. Regionally, North and Latin America lead the capacity charts, 9% below pre-pandemic levels. Industry wide passenger load factors are up too, reaching 82% in August 2022, 95% of pre-pandemic (August 2019 levels). International load factors at 83% have now exceed domestic load factors at 80%.

IATA has reported a slight increase in international forward bookings and noted that the willingness to travel remains strong despite high energy prices, traffic disruption and other economic headwinds. The eventual easing of travel restrictions in Asia Pacific is anticipated to unleash pent-up demand and boost bookings further.



In the news this quarter

- During August, Boeing resumed deliveries of its flagship 787 Dreamliner aircraft, with American Airlines taking the first delivery in over a year, after delays associated with production quality issues. Deliveries were first paused between November 2020 and March 2021 after Boeing identified quality issues and then stopped again in May 2021 to allow the FAA to agree to an inspection plan. In the 15 months since then further manufacturing issues were discovered and Boeing built up an inventory of 120 undelivered aircraft. Boeing's order book for the aircraft stands at ~480 aircraft across 50 announced airlines.
- Boeing's 737Max aircraft is attracting more unwanted news.

Boeing must achieve regulatory approval for the larger Max 10 and the smaller Max 7 variants by December, or it must meet new modern cockpit-alerting requirements that could significantly delay approvals. Congress could opt to waive the requirements that were adopted as part of certification reform legislation that was passed in 2020 after two catastrophic Max accidents. However, the delayed recertification has not stopped Canadian WestJet from announcing a major new order of up to 64 737Max 10 (42 firm and options for a further 22 aircraft) in early October. The Max 10, seating up to 230 passengers with a range of 3,215 nautical miles (nm), has one of the lowest cost per seat mile among mid-range aircraft.

- In August, Airbus reported that it had delivered 39 aircraft to 22 customers, increasing its year-to-date deliveries to 382 aircraft across 62 operators. The 39 deliveries comprised 33 A320neo-family, four A350 and two A330neo aircraft. Airbus did not record any gross orders in August, the net order figure for 2022 has decreased by 19 units to 637 aircraft. In September, Airbus confirmed that it had cancelled all 19 outstanding A350-1000s for Qatar Airways raising the stakes in a safety and contractual dispute with the Gulf carrier. The move comes as the two parties continue to battle over surface paint issues on the carrier's A350 aircraft. Qatar says the degraded paint poses a threat to safety, whereas Airbus has repeatedly called the problem cosmetic.



- In August, it was reported that American Airlines has committed to purchase up to 20 Boom Overture aircraft, with an option for an additional 40, paying a non-refundable deposit on the initial 20 aircraft. Under the terms of the agreement, Boom must meet industry-standard operating performance and safety requirements before delivery of any Overtures. American's CFO, Derek Kerr commented "Looking to the future, supersonic travel will be an important part of our ability to deliver for our customers". In July, Boom revealed the final production design of Overture, which is set to roll out in 2025 and carry its first passengers by 2029. The Overture is being designed to carry 65-80 passengers at Mach 1.7 over water (twice the speed of today's fastest commercial aircraft) with a range of 4,250 nm.
- In September, UK low-cost carrier EasyJet announced plans to purchase descent-optimising technology for its fleet of over 300 A320 aircraft in order to cut fuel use and emissions in support of their sustainability goals. The airline reported that the multimillion-pound investment in descent profile optimisation (DPO) and continuous descent approach (CDA) technology will deliver permanent fuel savings of 1%, in addition to cutting noise. The project is estimated to realise annual CO2 savings of 88,600 metric tonnes. DPO and CDA allow aircraft to descend from cruise altitude using only idle engine thrust, reducing fuel consumption and thus CO2 and nitrogen oxide emissions, as well as noise. As such, it enables aircraft to maximise the time spent at cruise level and removes the pre-landing level-off stage during which the aircraft's engines generate thrust to maintain level flight in dense air at low altitude. Other measures that the airline is looking to deploy as part of its roadmap to net-zero carbon emissions by 2050, include: single-engine taxiing on arrival and departure; deployment of advanced weather information to improve navigational performance; and engine washing to remove debris and boost air turbine performance.
- In September, more than two years after entering bankruptcy protection, Thai Airways creditors voted 79% in favour of the revised rehabilitation plan. The rehabilitation plan includes new borrowings of THB25 billion spread over six years, as well as THB37 billion of debt-for-equity swaps. Thailand is now largely reopened to fully vaccinated travellers, following closure for most of 2020 and 2021. Thai Airways reported a narrowed second-quarter operating loss of THB1.3 billion (\$37 million), down from THB4.4 billion in Q2 2021. Revenue excluding one-time items for the quarter ended 30 June increased almost three-fold to THB21.5 billion, as the airline carried almost seven times more passengers year on year.
- In September, Finnair announced plans to draw €110 million under its hybrid loan facility obtained from the government. The funds are part of a €400 million government loan secured in April which was subsequently converted to equity. The financial measures are part of a new strategy which will see the flag carrier further reduce its fleet size to counter the weakening of its Asian route network (curtailed by Finnair's inability to use Russian airspace). CFO Mika Strikkinen commented: "We will be reducing our size according to the needs. One factor impacting the size will be demand, especially the timetable of the re-opening of China. We are planning that during Q4, we will fly 80-85% of the pre-pandemic capacity". Finnair plans to increase its presence in India and the Middle East but will cut back on secondary cities in Asia.
- After 696 days in deep storage, Air New Zealand is bringing its first B777-300ER aircraft out of the Mojave Desert. Due to its warm and dry conditions the desert is an ideal environment to store aircraft and the airline noted that the aircraft are exiting long-term parking in good condition. The first of four B777-300ER aircraft left Mojave in late August for Auckland where it underwent scheduled maintenance before re-joining the operating fleet late in September. The remaining three aircraft will be reactivated over the next year. Three B777-300ERs stored in Auckland are already back in service.

Market responses

- At the start of the quarter, on 5th July, the Nordic's region largest airline, SAS, filed for bankruptcy protection. In anticipation of heavy losses, the option of Chapter 11 bankruptcy protection will enable the airline to accelerate restructuring plans, without shutting down its day-to-day business. The airline commented: "Through this process, SAS aims to reach agreements with key stakeholders, restructure the company's debt obligations, reconfigure its aircraft fleet, and emerge with a significant capital injection".
- On 11th July, Strategic Value Partners Global (SVPGlobal), a global investment firm with over \$18 billion of assets under management, announced that it had acquired the remaining 50% ownership of Deucalion Aviation from EnTrust Global. Deucalion manages more than 180 aircraft on lease to over 80 airlines globally. SVPGlobal commented that over the last 18 months, it has taken advantage of the dislocation in the aviation market by deploying over \$2.5 billion in aircraft-related investments and that the move strengthens its aircraft investment capabilities.
- On 28th July, JetBlue announced the acquisition of ultra-low-cost carrier Spirit Airlines for at least \$3.8 billion in cash in a takeover that would create the fifth-largest airline in the US. The deal ends a fierce month's long bidding war for Spirit and came hours after Spirit called off a planned merger with Frontier Airlines. JetBlue will pay \$33.50 per share for Spirit, increasing to \$34.15 depending on timing. JetBlue executives say that buying Spirit would fast-track its growth by giving it access to more Airbus aircraft and pilots and help it compete with the large US carriers.
- Recent debt capital market deals include:
 - 28 September, SMBC Aviation Capital received a \$1.3bn 5-year secured term loan provided by a syndicate of banks led by ANZ Banking and Citigroup
 - 27 September, CCB Leasing received a \$100m secured loan provided by Credit Agricole CIB. This issuance is being used to purchase two A321neo aircraft on lease to Volaris
 - 15 September, Starlux received a NT\$3.8bn secured loan provided by a syndicate of ten banks led by Taiwan Cooperative Bank. The issuance is being used to finance the delivery of an A350-900 aircraft
 - 13 September, Skyco Leasing priced a RMB350m 3-year unsecured bond. The coupon on the issuance is 3.480%. The issuance is for general corporate purposes
 - 6 September, KLM received a \$142m export credit agency-backed loan provided by Credit Agricole CIB and guaranteed by the Export-Import Bank of the United States. The loan is being used to finance a Boeing 777-300ER aircraft
 - 17 August, Allegiant Travel Company priced \$550m 5-year senior secured notes. The issuance has a coupon of 7.250% and is rated BB+, Ba3, and BB- by Fitch, Moody's, and S&P, respectively
 - 27 July, AVIC International Leasing priced \$450m 3-year senior unsecured bonds. The issuance has a coupon of 4.05% and is unrated
 - 20 July, Air New Zealand priced A\$550m medium-term notes. The issuance has two tranches, \$300m of bonds with a 5.7% four-year fixed rate coupon and \$250m of bonds with a 6.5% seven-year fixed rate coupon. Both tranches are rated Baa2 by Moody's

Investec Aviation Debt Funds

\$5 bn

aircraft assets under management on behalf of large institutional investors

Strong alignment of interest

Investec co-invests in all managed platforms

7-year

track record delivering consistent returns above a defined hurdle rate to Investors across two core debt platforms

Proven track record

Strong technical capabilities and proven track record originating, releasing and remarketing aircraft

25+ people

number of professionals that support Investec's dedicated Aviation Funds team

This presentation and any attachments (including any e-mail that accompanies it) (together "this presentation") is for general information only and is the property of Investec Bank plc ("Investec"). It is of a confidential nature and all information disclosed herein should be treated accordingly.

Making this presentation available in no circumstances whatsoever implies the existence of an offer or commitment or contract by or with Investec, or any of its affiliated entities, or any of its or their respective subsidiaries, directors, officers, representatives, employees, advisers or agents ("Affiliates") for any purpose.

This presentation as well as any other related documents or information do not purport to be all inclusive or to contain all the information that you may need. There is no obligation of any kind on Investec or its Affiliates to update this presentation. No representation or warranty, express or implied, is or will be made in relation to, and no responsibility or liability is or will be accepted by Investec or its Affiliates as to, or in relation to, the accuracy, reliability, or completeness of any information contained in this presentation and Investec (for itself and on behalf of its Affiliates) hereby expressly disclaims any and all responsibility or liability (other than in respect of a fraudulent misrepresentation) for the accuracy, reliability and completeness of such information. All projections, estimations, forecasts, budgets and the like in this presentation are illustrative exercises involving significant elements of judgement and analysis and using the assumptions described herein, which assumptions, judgements and analyses may or may not prove to be correct. The actual outcome may be materially affected by changes in e.g. economic and/or other circumstances. Therefore, in particular, but without prejudice to the generality of the foregoing, no representation or warranty is given as to the achievability or reasonableness or any projection of the future, budgets, forecasts, management targets or estimates, prospects or returns. You should not do anything (including entry into any transaction of any kind) or forebear to do anything on the basis of this presentation. Before entering into any arrangement, commitment or transaction you should take steps to ensure that you understand the transaction and have made an independent assessment of the appropriateness of the transaction in light of your own objectives and circumstances, including the possible risks and benefits of entering into such a transaction. No information, representations or opinions set out or expressed in this presentation will form the basis of any contract. You will have been required to acknowledge in an engagement letter, or will be required to acknowledge in any eventual engagement letter, (as applicable) that you have not relied on or been induced to enter into engaging Investec by any representation or warranty, except as expressly provided in such engagement letter. Investec expressly reserve the right, without giving reasons therefore, at any time and in any respect, to amend or terminate discussions with you without prior notice and disclaim hereby expressly any liability for any losses, costs or expenses incurred by that client.

Investec Bank plc whose registered office is at 30 Gresham Street, London EC2V 7QP is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority, registered no.172330.

