Quarterly Air Transport Chartbook

IATA Sustainability & Economics

Q4 2023

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Note to readers: *The Airline Financial Performance section is included in the Quarterly Air Transport Chartbook for Q2 and Q4 of each year. It is excluded from the Q1 and Q3 reports as the airline financial performance review and forecast are released alongside the June and December Global Outlook reports, respectively.*

Glossary

ACTKs – Available Cargo Tonne-Kilometers

ASKs – Available Seat-Kilometers

ATJ – Alcohol-to-Jet

ATKs – Available Tonne-Kilometers

BBL – Barrel

BLF – Breakeven Load Factor

CLF – Cargo Load Factor

CORSIA – carbon offsetting and reduction scheme for international aviation

CTKs – Cargo Tonne-Kilometers

EBIT – Earnings before interest and taxes

FT – Fischer-Tropsch

GDP – Gross Domestic Product

HEFA - Hydro-processed Esters and Fatty Acids

LF – Load Factor

MoM – Month-on-month

MoUs – Memoranda of understanding

OPEC – Organization of the Petroleum Exporting Countries

O-D – Origin-Destination

PLF – Passenger Load Factor

PMI – Purchasing Managers' Index

PtL – Power-to-Liquid

PPP – Purchasing power parity

ppt - Percentage points

RPKs – Revenue Passenger-Kilometers

RTKs – Revenue Tonne-Kilometers

SA – Seasonally adjusted

SAF – Sustainable Aviation Fuel

QoQ – Quarter-on-quarter

USD – United States Dollar

YoY – Year-on-year

Table of Charts

I. The Business Cycle

- Global GDP growth stood at 3.1% in 2023 and is likely to remain in this vicinity also this year and next. This is in line with the long-term average growth rate, and it is a remarkable outperformance compared to the recession forecasts that dominated the business cycle conversation last year (Chart 1). The United States (US) in particular beat expectations in 2023, growing by 2.5% (annual level over full-year 2022). This was an acceleration from the 1.9% recorded in 2022 on the same basis. India's growth rate also exceeded expectations in 2023 and recorded one of the highest growth rates among larger economies. At 6.3%, India surpassed China's 5%, as has been the case since 2014. India's share of global GDP (on a purchasing power parity basis[1]) is estimated at 7.75% in 2024 by the IMF. This is of course much smaller than the 19% share of China or the 15.2% of the US economy on this basis. Nevertheless, if India continues to grow at this pace, its share in the global economy will increase rapidly, and its contribution to global GDP growth will become ever more important (Chart 2)[2]. Local recessions did occur though in 2023, it must be said, affecting Germany and some Eastern European countries, not to mention Argentina or Sudan, among others.

- A major factor that has protected the global economy against recessions is the unusually low unemployment rates seen around the world (Chart 3). The US stunned the world with a monthly job creation in January 2024 of 353,000, more than twice the anticipated number. The unemployment rate stood at 3.7% and has been at or below 4% since December 2021. A possible hint of forthcoming slowdown in labor growth was the small decline in the average workweek and in overtime. The EU and the euro area unemployment rates are also at historic lows, at 5.9% and 6.4% respectively in December 2023. China reported 5.2% unemployment in 2023 though youth unemployment is much higher, at 14.9%, using a new methodology. India's jobless rate was 6.6% in January 2024, down from 8.7% in December 2023.

- With such tight labor markets, it is almost surprising that inflation has eased as much as it has. Nevertheless, with respect to central banks mostly targeting 2% inflation rates, major economies are still some distance away (Chart 4). In the US, consumer price inflation (CPI) was 3.1% year-on-year (YoY) in January 2024. While 2023 was characterized by recession fears, 2024 seems to be imbued with hopes for imminent interest rate cuts. Such hopes are likely to be dashed as long as labor markets remain this tight and inflation this high.

- The year has thus globally started off on a rather positive note, and the greatest source of turbulence might come from the record-breaking number of elections that will be held around the world this year. A majority of the world population, some 4.2 billion persons, will vote this year, in around 70 countries. With polarization running high, election results can give rise to starkly different policies. Much will hinge on the US elections in November 2024, but other important elections include India's between April and May, and the Europeans voting for their European Union representatives in June. For now, the global economic policy uncertainty index is certainly below its Covid-19-related peak but at 254 it is also well above its more normal level as can be seen in Chart 5.

- Interest rate cut expectations will likely weigh on the US dollar's value against other currencies, unless elections and other sources of geopolitical stress reignite its safe-haven status. If such risks are contained, 2024 could be a year of relative US dollar stability after its strong run since 2021, which would arguably be a boon for the global economy and for all settling bills and debts in this currency (Chart 6).

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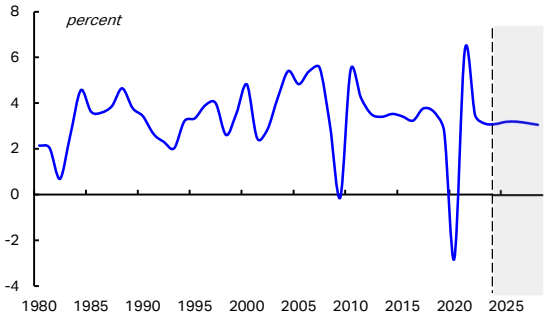
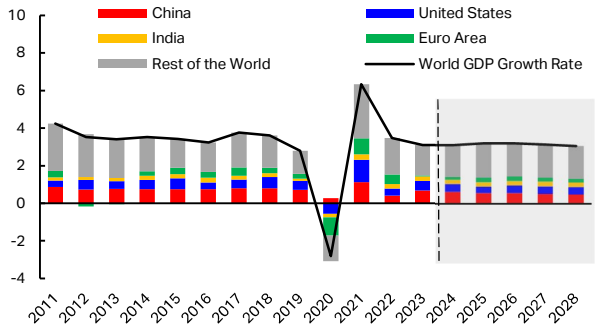
[1] Purchasing power parity (PPP) is a better gauge for comparing countries' performance than current USD which obviously reflects exchange rate fluctuations to a greater extent. PPP comparisons yield greater weights for emerging economies in terms of shares of global GDP than current USD.
[2] Contributions to world GDP growth are calculated by multiplying a country's GDP growth rate by its share in the global economy.

Chart 1: Global gross domestic product (constant USD), annual % change



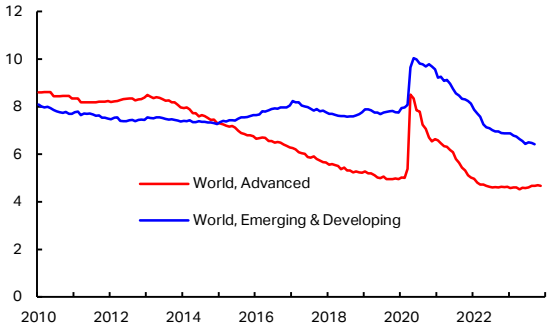
Source: IMF World Economic Outlook

Chart 2: Contribution from large economies to world GDP growth in %



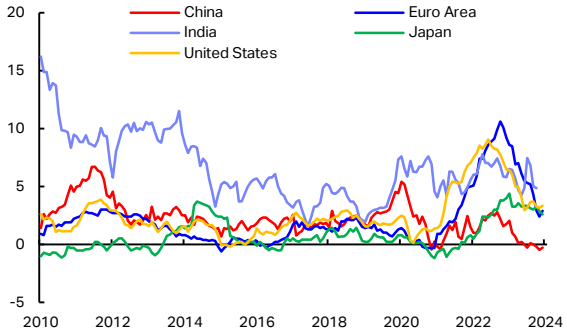
Source: IATA Sustainability & Economics, based on data from IMF World Economic Outlook.

Chart 3: Unemployment, total by country group, % of total labor force



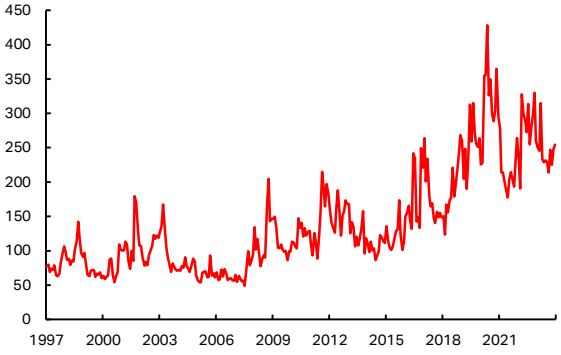
Source: World Bank, Global Economic Monitor

Chart 4: Inflation in major economies in %



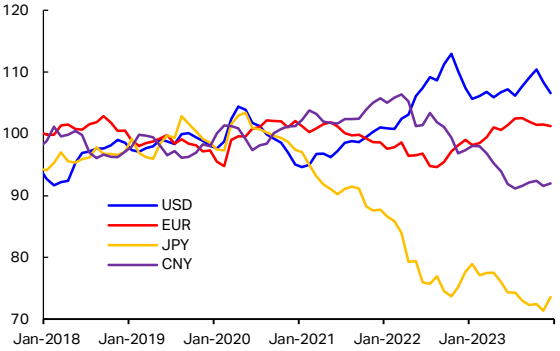
Source: Macrobond

Chart 5: Global economic policy uncertainty index



Source: Federal Reserve Bank of St. Louis

Chart 6: Real Effective Exchange Rate Index, Broad



Source: BIS

II. Energy Transition

Conventional Aviation Fuel

- Amid the continued recovery in air travel, jet fuel demand remained high in 2023, with the global average price consistently above USD 100 per barrel during the fourth quarter (Chart 7). Geopolitical tensions, such as the war in the Middle East, could impede supply, while Organization of the Petroleum Exporting Countries (OPEC)'s production curbs put further upward pressure on the price. Coupled with limited refining capacity, the jet fuel crack spread stayed around USD 30 per barrel in Q4. This is well above pre-pandemic levels, when the crack spread was bounded between USD 9-22 per barrel over a three-year range from 2017-2019 (Chart 8).

- Supply constraints have been exacerbated by attacks on tankers in the Red Sea, and this has generated regional disparities in the jet fuel price (Chart 9). With Europe relying significantly on jet fuel imports from East of Suez (mainly India and the Arab Gulf), its price level almost caught up with the Americas in Q4. The latter region has seen comparatively high prices as a result of the combination of disrupted local production and strong air travel demand. In the meantime, a sluggish recovery in demand for international air travel in China put a lid on the regional jet fuel price in Asia, where refined products are comparably well supplied.

Sustainable Aviation Fuel

- Over the course of the past two years, the airline industry has signed a total of 75 offtake agreements (these are agreements between a Sustainable Aviation Fuel (SAF) producer and an airline to purchase a quantity of the producer's future SAF production). This includes 53 binding and 22 non-binding agreements, the latter of which covers both memoranda of understanding (MoUs) and letters of intent (Chart 10).

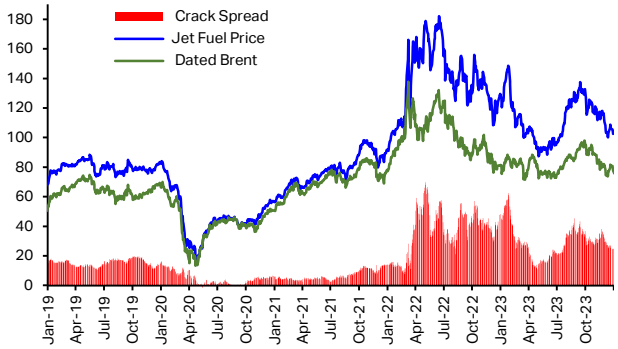
- Out of the total 75 SAF offtake agreements, 64 are based on bio-SAFs from four primary pathways: Hydro-processed Esters and Fatty Acids (HEFA), HEFA Co-Processing, Syngas Fischer-Tropsch (Syngas-FT), and Alcohol-to-Jet (AtJ). The remaining eleven agreements are associated with e-fuel SAF, derived from various Power-to-Liquid (PtL) projects. HEFA and HEFA Co-Processing are the most mature and commercially viable SAF technologies currently in use, and they account for the majority of SAF offtake agreements.

- Over 160 renewable fuel projects spanning more than 110 producers in 37 countries have been announced to date, which made various levels of commitment to including SAF in their product slate. The estimated global renewable fuel capacity by 2029 has risen from a projected 59 million tonnes in Q3 to 64 million tonnes in Q4 2023 (Chart 11). There is a three to five-year lag between project announcement and commercialization, and further capacity announcements for 2027 and beyond can be expected.

- In 2029, the HEFA pathway is expected to contribute over 82% of total SAF production, followed by AtJ at around 8% (Chart 12). A further 4.2% will likely come from HEFA Co-Processing according to the latest Q4 projections, with the remainder from the other pathways.

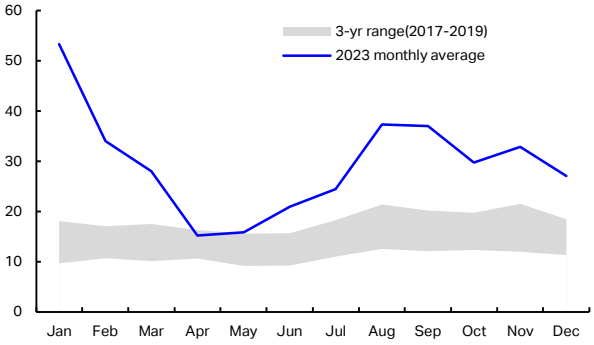
- The development of biorefining facilities is being accelerated by the growing trend of fossil refineries being retrofitted (e.g., Phillips 66 announced the retrofitting of their Rodeo plant in San Francisco) or decommissioned and sold in the second-hand market. The advantage with these options is the lower capital intensity compared to building a new plant from scratch. While many new biorefining facilities will be required to achieve decarbonization in aviation, the urgent scaling up of production capacity can be greatly helped by prioritizing the retrofitting of old fossil refineries into biofuel production facilities.

Chart 7: Jet fuel price, USD/bbl



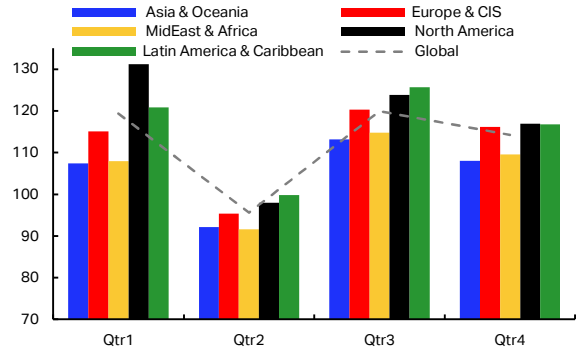
Sources: S&P Global Commodity InsightsS&P Global`

Chart 8: Jet fuel crack against crude oil, USD/bbl



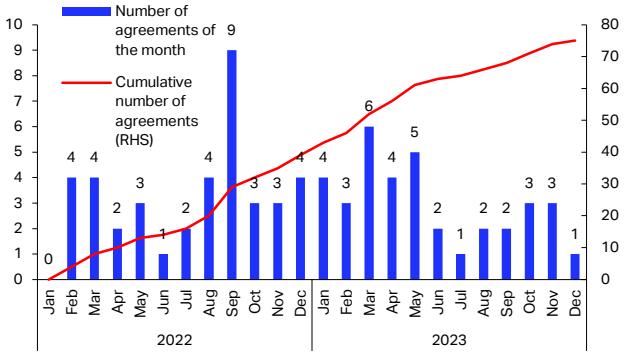
Source: IATA Sustainability and Economics, S&P Global Commodity Insights.

Chart 9: Quarterly jet fuel prices in 2023 by region, USD/bbl



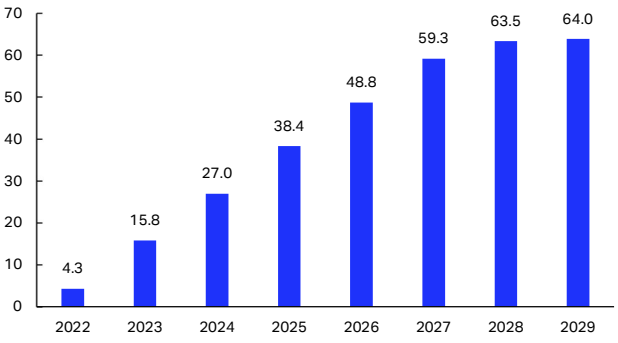
Source: IATA Sustainability and Economics, S&P Global Commodity Iinsights

Chart 10: Number of SAF offtake agreements, as of Dec 2023



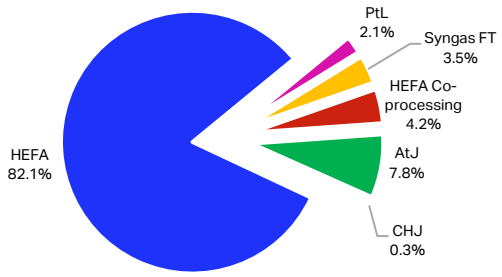
Source: IATA Sustainability and Economics

Chart 11: Cumulative renewable fuel capacity in million tonnes



Source: IATA Sustainability & Economics

Chart 12: Total renewable fuel capacity by 2029, % share by pathway



Source: IATA Sustainability and Economics

III. Passenger and Cargo Traffic

Passenger Traffic

- In the fourth quarter of 2023, the aviation sector continued to recover while navigating economic and geopolitical tensions.

- Global air passenger traffic experienced a significant upswing of 28.6% year-on-year (YoY) in the final quarter of 2023, as measured by Revenue Passenger Kilometers (RPKs, Chart 13). Airlines expanded their seat offerings by 27.1% compared to the previous year to meet the rising demand (Chart 14). This impressive recovery notwithstanding, both passenger numbers and seat availability did not quite reach the levels observed in the last quarter of 2019.

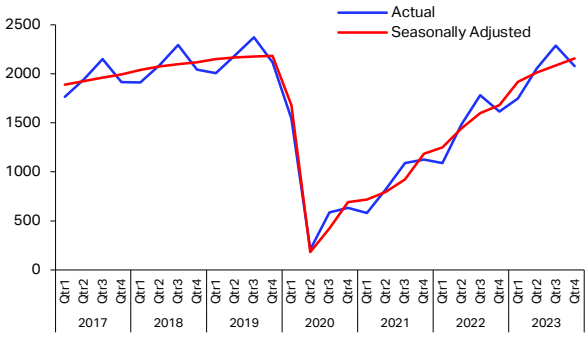
- The growth in passenger demand had a slight edge over the increase in flight capacity, which resulted in a passenger load factor (PLF) of an impressive 82.4% on average. This figure is up 1.0 and 0.7 percentage points (ppt) respectively compared to 2022 and 2019 and is the highest fourth quarter PLF recorded since 2010 (Chart 15). This trend of heightened load factors was observed across regions, with the exception of Africa and North America. Specifically, African carriers reported a seat occupancy rate of 72.0%, 0.9 ppt above the 2019 figures though 3.8 ppt below the Q4 2022 figure which marked a decade peak. North America's load factor was 83.4% and while in line with its pre-pandemic average, it was 1.0 ppt lower than in 2022.

- Approximately 40% of all air travel, considering both the distance and the volume of travelers, occurs within domestic markets. In the fourth quarter, domestic air traffic continued to grow YoY, and stood 4.4% over pre-pandemic levels on average, with mixed performances between countries (Chart 16). Growth was mainly led by the three largest markets, namely the US, India, and China. China's performance was particularly striking, with its air travel more than tripling on a YoY basis in Q4, following a more-than-tripling in Q2 and a doubling in Q3. This significant upturn is from a low base, but nevertheless marks an impressive and historic achievement. It highlights the persistent demand for travel, even in periods of slow economic growth. The US and India also surpassed their pre-pandemic levels of air traffic, with India reaching a historic high of 37.8 million RPKs in the fourth quarter. Brazil continued to increase more than 5% YoY in Q4, but the momentum is not strong enough to remain above pre-pandemic levels. Other major domestic markets, such as Australia and Japan remain slightly behind despite more than 5% growth from the previous year.

- International traffic has not yet completely recuperated its 2019 levels across the board either, though international RPKs saw substantial growth in the fourth quarter, increasing 26.7% YoY and reaching 94.5% of Q4 2019 levels on average (Chart 17). North American carriers still champion the industry with RPKs at 105.9% of Q4 2019, the third consecutive quarter of surpassing pre-pandemic levels. Latin American and Middle Eastern carriers also outperformed their pre-pandemic quarterly benchmarks for the first time in international traffic since the onset of the pandemic. The Asia Pacific region showcased the most rapid YoY growth at an extraordinary 67.1%, significantly narrowing the gap to Q4 2019 figures.

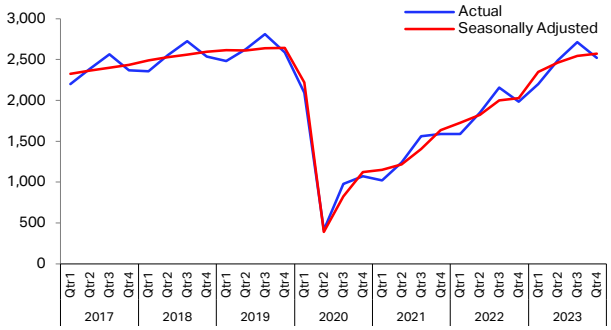
- Globally, premium class traffic (first and business class), nearly reached pre-Covid levels in Q4 2023 (and a share of total international RPKs of 8%), falling just 0.9% short. Economy-class travel (all other than first and business), on the other hand, lagged at 5.9% below 2019 levels (Chart 18). This underlines a key trend in favor of premium-class travel in the current market dynamics. Notably, North American carriers experienced a remarkable 36.1% surge in premium traffic compared to pre-pandemic levels. This increase underscores the segment's significant contribution to airlines' revenue strategies. Conversely, Europe carriers flew 17.1% below Q4 2019 levels in premium class and Europe's economy class traffic was only 1.3% short of that level.

Chart 13: Industry monthly RPKs in billions



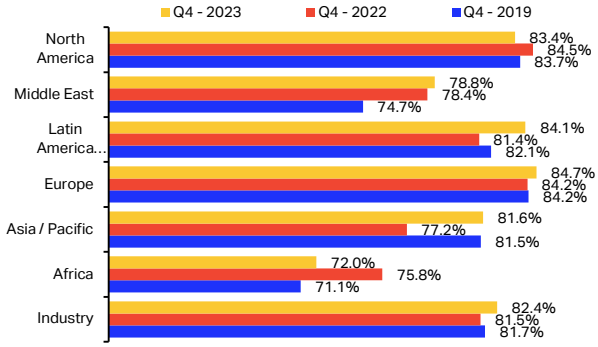
Sources: IATA Sustainability and Economics, IATA Monthly Statistics

Chart 14: Industry monthly ASKs in billions



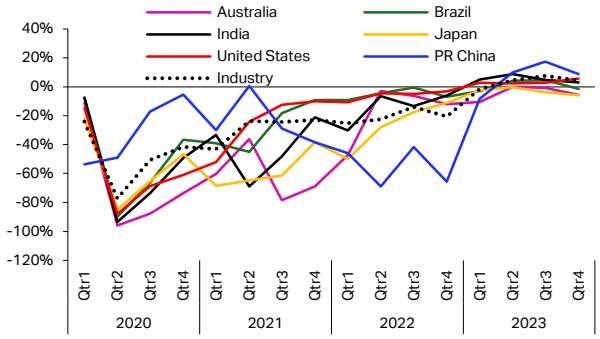
Sources: IATA Sustainability and Economics, IATA Monthly Statistics

Chart 15: Passenger load factor, % share of ASK



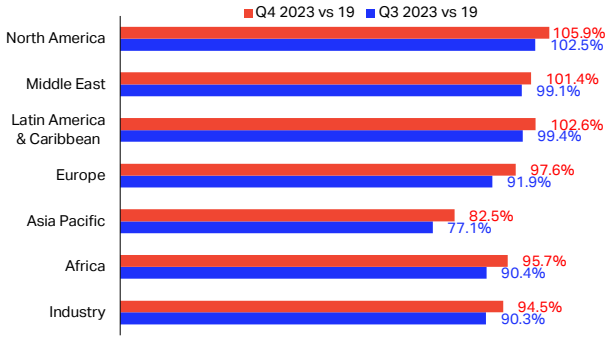
Sources: IATA Sustainability and Economics, IATA Monthly Statistics

Chart 16: Domestic RPKs by country market, % change versus the same quarter in 2019



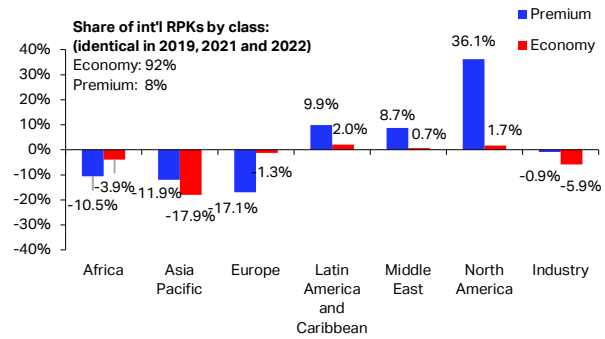
Sources: IATA Sustainability and Economics, IATA Monthly Statistics

Chart 17: International RPKs by airline region of registration, % share of the same period in 2019



Source: IATA Sustainability and Economics, IATA Monthly Statistics

Chart 18: International RPKs by cabin class, % change vs the same period in 2019 (Q4)



Source: IATA Sustainability and Economics, IATA Monthly Statistics

Air Connectivity

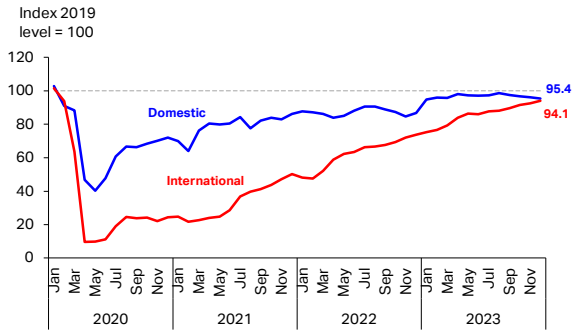
- Air transport is a vital form of connectivity in the modern age. It provides the city-pair connections that support the flows of goods and people between markets, enabling world trade, investment, tourism, innovation, and the spreading of ideas, among other key economic activities. Reassuringly, the ongoing recovery in air traffic volumes is accompanied by network growth and increased connectivity, which drive improved economic outcomes for all countries and communities.

- IATA's Global Air Connectivity Index measures air connectivity as scheduled passenger capacity weighted by the relative economic size of the destinations served. The recovery in international air connectivity continued through the fourth quarter, while domestic recovery levels seem to have peaked in Q3. In particular, at the end of Q4 2023, international air connectivity recovered to 94.1% of its pre-pandemic level, up a notable 20.3 ppt compared to 2022. Domestic air connectivity achieved 95.4% of its 2019 level by the end of the fourth quarter, having increased by a more modest 8.6 ppt compared to the previous year (Chart 19).

- The post-pandemic recovery in air connectivity is geographically widespread (Chart 21). For the second quarter in a row, Latin America & the Caribbean was the strongest-performing region. At the end of Q4 2023, international air connectivity in the area reached 116.7% of the level in 2019; a 9.7 ppt increase compared to the previous quarter. Africa, the Middle East, and North America followed with 109.5%, 99.8%, and 99.4% of their respective pre-Covid levels. Europe has yet to reach its 2019 level of connectivity, standing at 95.9% at the year-end. Asia Pacific continued to lag the other regions in terms of its recovery trajectory, as it settled at 84.6% of the 2019 level at the end of Q4 (up from 79.1% in September 2023). However, the region experienced a remarkable increase of 32.1 ppt in international air connectivity over the past twelve months, thereby narrowing the gap to the global average to 9.5 ppt at the end of Q4 2023.

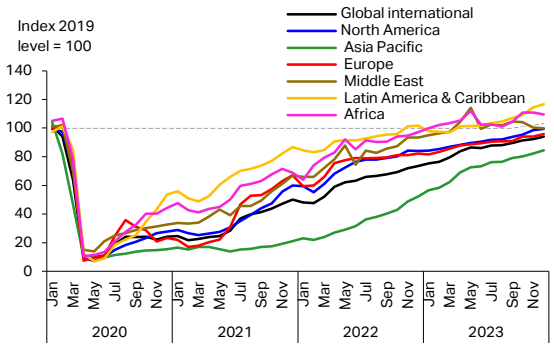
- Air connectivity can also be examined by looking at flight frequency and the number of airport pairs served. Flight frequency on international routes rose to 93.9% of the 2019 level at the end of Q4 2023 (up from 89.8% in Q3), outpacing the recovery in domestic flight frequency for the first time. The latter stood at 90.8% in Q4 2023. The number of domestic airport pairs served reached pre-pandemic levels already in December 2021. Q4 matched that number perfectly, at 100% of the 2019 number (down from 102% in Q3). International airport pairs still lag at 92.6% of 2019 at the end of Q4 (Chart 20).

Chart 19: IATA Global Air Connectivity Index, Jan 2020-Dec 2023



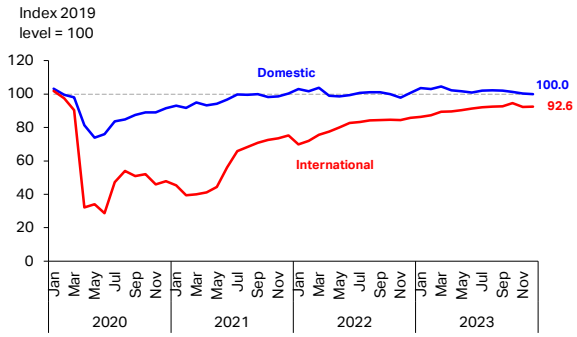
Source: IATA Connectivity Index using data from OAG

Chart 20: Recovery in international connectivity by region through Dec 2023



Source: IATA Connectivity Index using data from OAG

Chart 21: Global airport pairs, Jan 2020-Dec 2023



Source: IATA Connectivity Index using data from OAG

Cargo Traffic

- Inflation, troubled supply chains, geopolitical tensions and a shift towards more inward-looking economic environment have put pressure on global trade in 2023. Despite this challenging environment, the air cargo sector ended the year on a positive note. Indeed, global air cargo demand experienced a remarkable revival in the course of 2023, with a strong fourth-quarter performance despite weak demand drivers.

- In fact, the airline industry experienced a significant upswing in cargo traffic during the fourth quarter of 2023, with cargo tonne-kilometers (CTKs) reaching 67.3 billion, an 8.1% increase compared to the preceding quarter. This period traditionally witnesses a surge in global cargo demand, yet the final quarter of 2023 stood out not only for this seasonal uptick but also for a 7.8% YoY growth. This marks a notable improvement from the third quarter's 0.9% annual growth in cargo traffic, which recorded the industry's first positive annual growth rate since late 2021. Moreover, the quarter's performance brought the industry extremely close to pre-pandemic volumes, falling just 0.7% short of the 2019 levels (Chart 22).

- Closely mirroring the trend in total air cargo traffic, industry-wide international CTKs stood at 58.2 billion in Q4 2023, marking a 7.8% YoY increase (Chart 23). However, the growth was not uniform across regions. Airlines registered in the Middle East, Asia Pacific, and Europe led the growth. Middle Eastern carriers continued their upward trajectory, achieving the highest annual growth in international CTKs during Q4 with an impressive 14.7% increase. Meanwhile, airlines in the Asia Pacific region demonstrated resilience, gaining 9.7% YoY in Q4. European carriers also played a pivotal role, posting a respectable 5.7% YoY increase in international CTKs. Carriers from the Americas followed suit: Latin America managed 4.6% YoY growth, while North America achieved 3.4%. Another noteworthy development in Q4 occurred in Africa, where international traffic saw the first annual growth since early 2022 with 2.2% YoY. The African aviation sector's resurgence is a promising sign for the industry as a whole.

- On the supply side, global air cargo capacity reached 146.4 billion available cargo tonne-kilometers (ACTKs) during Q4 2023 (Chart 24). While this figure represents a mere 0.5% increase compared to Q3, it carries additional implications. Notably, air cargo supply maintained double-digit annual growth for the third consecutive quarter, with a robust 13.5% YoY increase in Q4. The rapid expansion of global capacity primarily stems from the restoration of belly cargo capacity across various markets. In comparison to Q4 2019, the industry's ACTKs have surged by 4.3%. In Year-to-Date (YTD) terms, industry ACTKs remained above pre-pandemic levels since Q2, and hovered above 2022 levels throughout all four quarters of 2023 (Chart 25).

- The strong annual growth in industry-wide air cargo capacity throughout 2023 can largely be attributed to international routes. With a solid 12.3% YoY growth in Q4, international ACTKs also sustained double-digit growth for the third quarter in a row (Chart 26). The primary driver for this is the returning international passenger belly-hold capacity, which was up an impressive 29.3% YoY during the fourth quarter. In contrast, international capacity on dedicated freighters grew by only 1.5% YoY in Q4; the first positive annual growth since 2021. Overall, the share of international ACTKs provided by passenger belly capacity continued to normalize in 2023, adjusting from 45% in Q4 2022 to 52% in Q4 2023, and thereby moving closer to the pre-pandemic share of around 60% (Chart 27).

- True to the solid upward trend in demand, the industry-wide air cargo load factor (CLF) increased from 48.1% in Q3 to 51.5% in Q4 2023. This is in line with pre-pandemic seasonality trends, as CLF typically trend upwards towards the end of the year (partly driven by the holiday season, inventory management and other business year-end transactions). Inspecting the major trade lanes displayed in Chart 28, it is evident that the recent upsurge is primarily driven by the relatively potent Europe-North America route, which registered 46.5% in the fourth quarter, up 8.8 ppt from Q3. A secondary driver of said increase was traffic across the comparatively smaller Europe-Middle East trade lane, which recorded a CLF of 55.5% in Q4 (up 7.3 ppt from the third quarter).

- The highest cargo load factors in Q4 2023 were observed across the Asia Pacific-Europe (68.2%) and North America-Asia Pacific (63.6%) routes, the latter of which represents the largest trade lane by volume. The remaining two of the major trade lanes on Chart 28, i.e., within Asia and Middle East-Asia Pacific, recorded only minor upticks in CLF towards the year-end to settle at 52.4% and 44.4%, respectively.

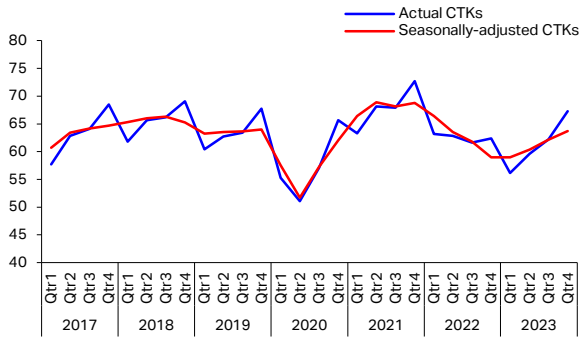
- To put the strong fourth-quarter performance of the air cargo industry into proper context, it is useful to examine the evolution of specific demand drivers. The Purchasing Managers' Index (PMI), for instance, which gauges economic trends in manufacturing and services, is a key indicator of air cargo demand. A PMI above 50 suggests that more purchasing managers expect their business to grow compared to the previous month, while a figure below 50 indicates fewer managers with that outlook (Chart 29).

- The PMIs for both global manufacturing output and new export orders stayed below 50, at 49.5 and 48.0 respectively in December (Chart 29). The manufacturing output PMI was lower than both the previous month and the previous quarter-end. The new export orders PMI also fell from November, but by less than compared to the end of Q3. In spite of the weak PMI numbers, seasonally adjusted industry CTKs actually trended upwards both YoY and month-on-month (MoM) throughout that last quarter of 2023,

- The inventory-to-sales ratio is negatively correlated with industry CTKs because high stocks suggest a lack of demand, and less air cargo (Chart 30). In the US, the inventory-to-sales ratio has been at exceedingly high levels in 2023, pointing to very weak demand conditions. The decrease in the annual growth of the ratio towards the year-end (inverted in the chart), from 6.2% YoY in Q3 to 5.3% YoY in Q4, was reassuring but not very significant. Too much should not be read into it either, as there is a marked influence by the base-year effect relating to the increasing ratio in Q4 2022. Notably, CTKs staged a recovery well in excess of the evolution in the inventory-to-sales ratio.

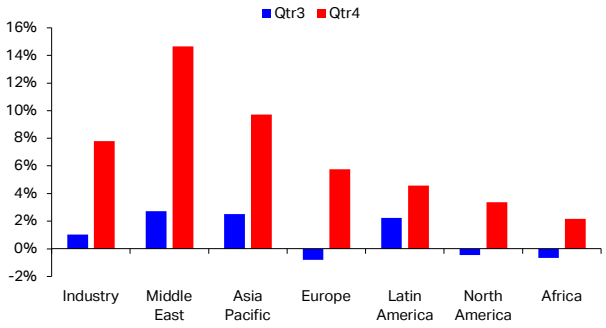
- Merchandise trade has mirrored the evolution in the inventory-to-sales ratio, indicating cooling demand in 2023 compared to 2022. This trend was somewhat reversed in Q4, contracting by -1.5% YoY, but this was still an improvement compared to the annual -3.5% decline seen in the previous quarter (Chart 31). Rather remarkably, air cargo seems quite impervious also to this indicator's feeble support, as illustrated by the green columns in the chart, with Q3 marking the first instance of a positive relative performance of air cargo growth since 2021. This positive development intensified in Q4, with the indicator jumping 9.3 ppt. However, while the annual decline in global goods trade occurred from a high base in 2022, the annual growth in air cargo is from a low base during that same year. These base-year effects are important when comparing the relative performance of air cargo and global trade, as they explain the seemingly counterintuitive response in air cargo.

Chart 22: Industry quarterly CTKs in billions



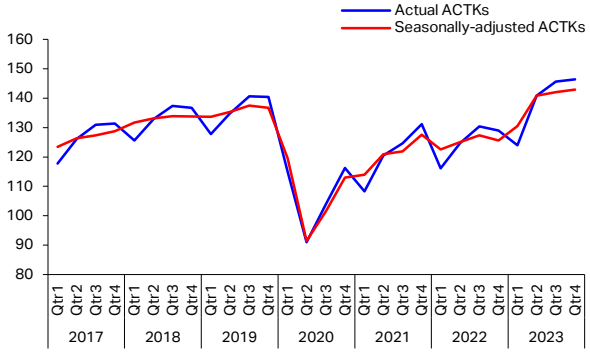
Sources: IATA Sustainability and Economics, IATA Monthly Statistics

Chart 23: International CTK growth by airline region of registration, annual % change



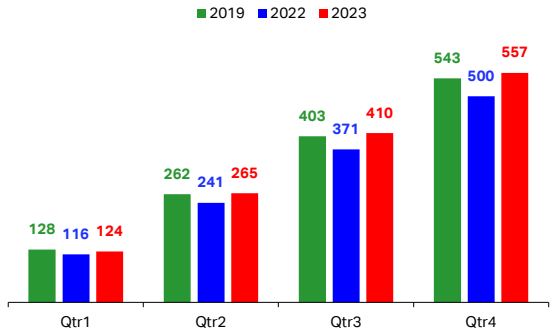
Sources: IATA Monthly Statistics

Chart 24: Industry quarterly ACTKs in billions



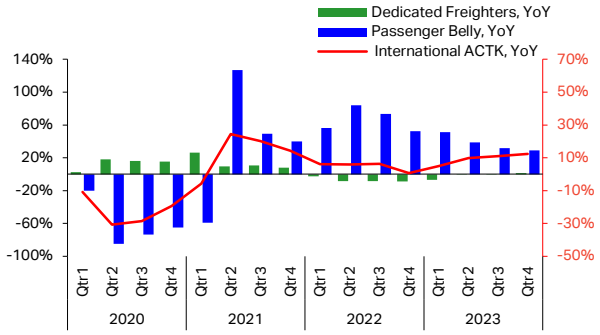
Sources: IATA Sustainability and Economics, IATA Monthly Statistics

Chart 25: Year-to-date quarterly industry ACTKs in billions



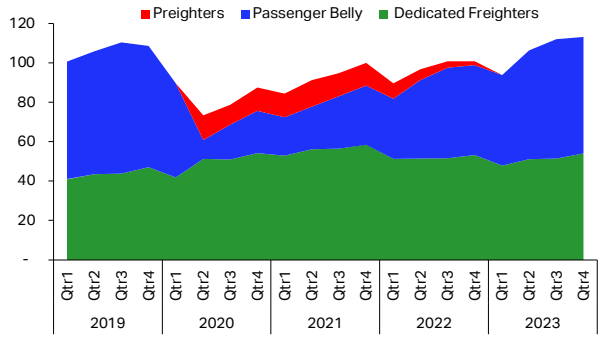
Sources: IATA Sustainability and Economics, IATA Monthly Statistics

Chart 26: Growth of international ACTKs by type, annual % change



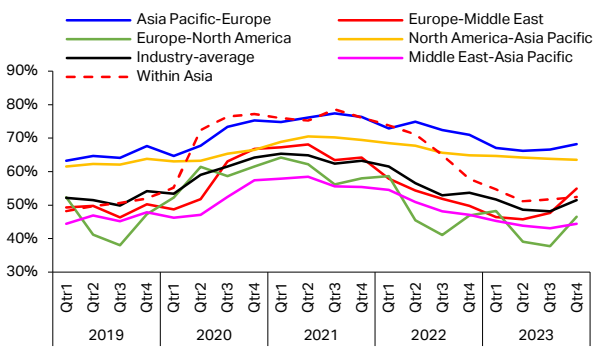
Sources: IATA Sustainability and Economics, IATA Monthly Statistics

Chart 27: International ACTKs by type in billions



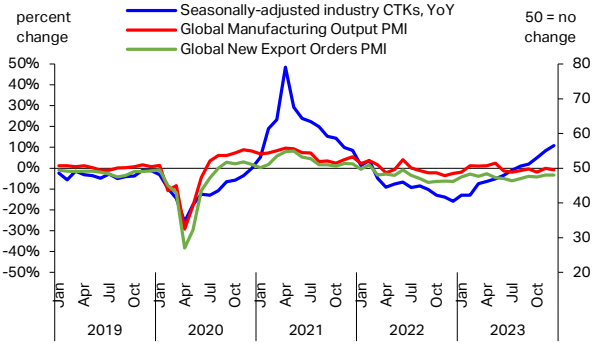
Sources: IATA Sustainability and Economics, IATA Monthly Statistics

Chart 28: Cargo load factors in major route areas, % share of ACTKs



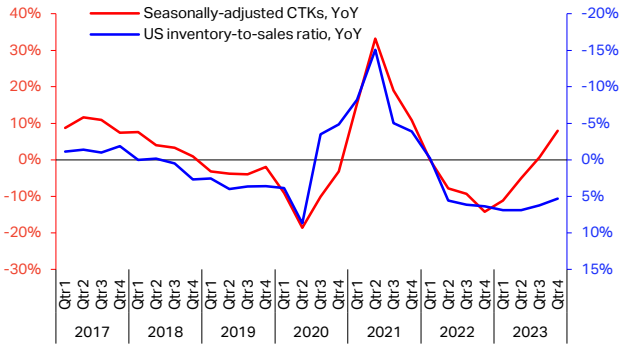
Sources: IATA Monthly Statistics

Chart 29: Global manufacturing PMIs and industry CTK growth, annual % change



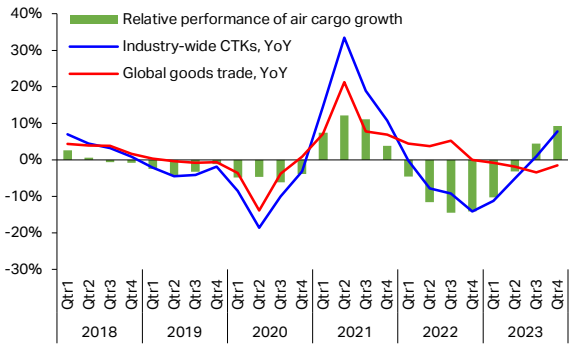
Sources: IATA Sustainability and Economics, S&P Global Markit

Chart 30: Growth in inventory-to-sales ratio (inverted on the axis) and industry CTKs, annual % change



Sources: IATA monthly statistics, Macrobond

Chart 31: Growth in global goods trade and industry CTKs, annual % change



Sources: IATA Sustainability and Economics, IATA Monthly Statistics, Macrobond

IV. Airline Financial Performance

- The airline industry has been facing numerous challenges in 2023, including wars, oil price volatility, elevated interest rates, and staff shortages. Naturally, these difficulties all weigh on airlines' financial performance. Despite this, we estimate that the industry returned to profitability in 2023.

- In fact, we currently estimate the overall net post-tax profit to reach USD 23.3 billion in 2023, with a slim operating profit margin of 4.5% (Chart 32). This is a remarkable feat. However, not all the world regions contributed equally to the net profit. North America and Europe are the stand-out regions chiefly responsible for the industry's return to profitability. Middle East was also in the black in 2023, while other regions remained in red (Chart 33).

Revenue

- Passenger revenues are estimated to reach USD 642 billion in 2023, a remarkable increase of 47% from 2022, and exceeding 2019 levels by 7% (Chart 34). Looking ahead, passenger revenue growth is expected to slow markedly in 2024, to 12%, but from the much higher 2023 base. With capacity continuing to return in 2024, especially in Asia Pacific, the growth in yields is set to decelerate.

- Despite the upward trend in the cargo market towards the year-end, full-year industry cargo revenue is estimated to decline by one third in 2023. This downturn is driven mainly by lower demand and falling freight rates. On the demand side, North America and Europe are most affected. On the aspect of yields, downward pressure stems from increased belly capacity as more passenger aircraft re-enter service, as well as competition from lower maritime cargo rates. Looking into 2024, growing cargo demand is expected to be offset by a continued decrease in freight rates. Nonetheless, these rates are projected to stay above their pre-pandemic figures. Consequently, a further decline in cargo revenue is anticipated for 2024, with the revenue distribution between passenger and cargo sectors expected to revert to pre-pandemic proportions of around 88% and 12%, respectively.

Expenses

- According to our estimates, the aviation industry consumed between 450,000 and 500,000 tonnes of SAF at USD 2'500 per tonne in 2023. This unit cost is 2.8 times higher than the price for CAF, and thus added USD 756 million to the industry fuel bill in 2023. Nonetheless, the aviation industry is set to increase its use of SAF to reduce its carbon footprint. We estimate that SAF production could rise to 0.53% of airlines' total fuel consumption in 2024, adding USD 2.4 billion to next year's industry fuel bill. In addition, the industry is committed to the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), which is a global market-based carbon offsetting mechanism designed to stabilize international aviation emissions. CORSIA-related costs for 2024 could amount to around USD 600 million. These costs will add more pressure to the already fragile profitability of the industry.

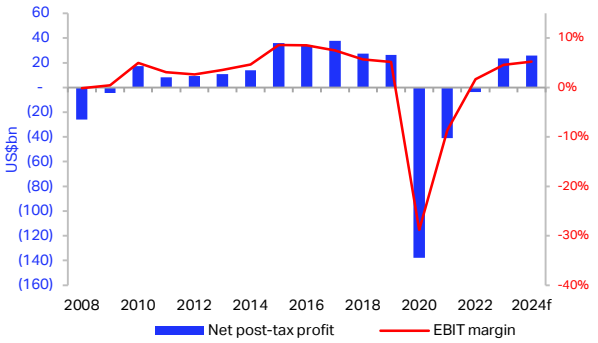
Capital markets

- Despite the return to profitability, the stock performance of listed airines paints a less optimistic picture. The Global Airlines Price Index, which tracks publicly listed shares of selected airlines, has not recovered from the impact of the Covid-19 pandemic and is still trading 30% lower than in 2019. This contrasts sharply with the strong rebound of the MSCI All Companies World Index, which has surpassed pre-pandemic levels by 30% (Chart 35).

- The year 2023 brought mixed results for the airline industry in the capital markets. Out of 88 listed airline businesses, only a slight majority (45 companies) saw an increase in their share prices at the end of the year. The resulting median share price growth was not very encouraging either, reaching just 2%.

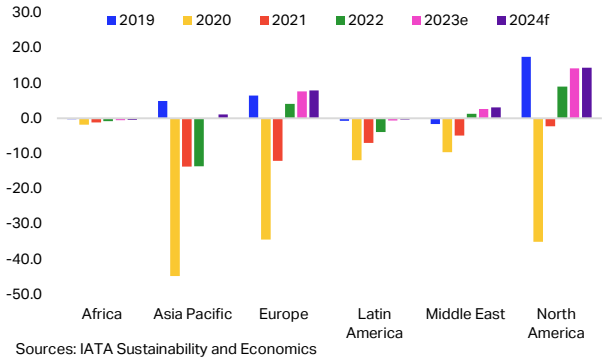
- Regional airline price indexes exhibited the usual quarterly seasonality while following the global airlines market trend. While the first quarter into 2023 showed a promising start into the year, North American airlines experienced a downturn that weighed on the Global Airlines Price Index in Q2. The recovery was swift, with indices soaring in July and August. Despite a subsequent decline towards the end of the third quarter, all markets saw a significant rally in the final quarter, closing the year on a broad-based surge in Q4 (Chart 36). The European Airline Price Index performed in 2023 better compared to the North Amercia, Asia-Pas and Global Airiline indices.

Chart 32: Airline industry net profit and EBIT margin



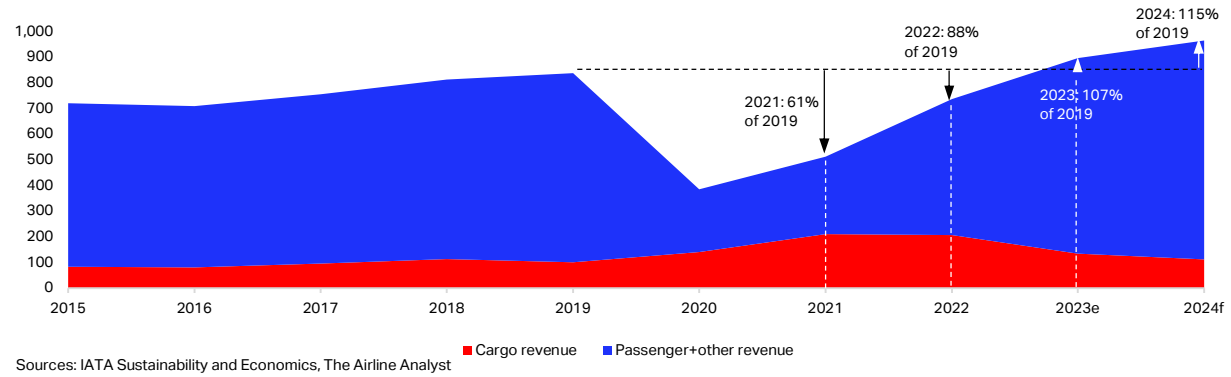
Source: IATA Sustainability & Economics, The Airline Analyst

Chart 33: Regional airlines profitability, USD billion



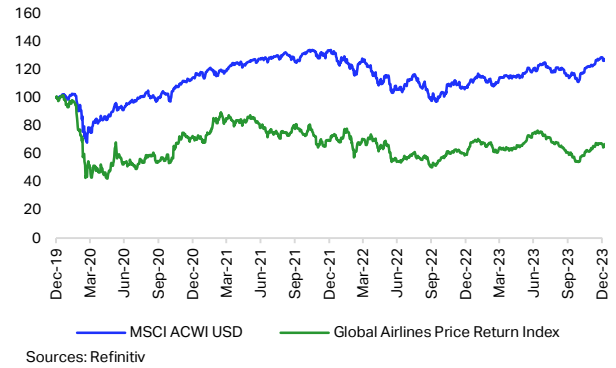
Sources: IATA Sustainability and Economics

Chart 34: Global airlines revenue, USD billion



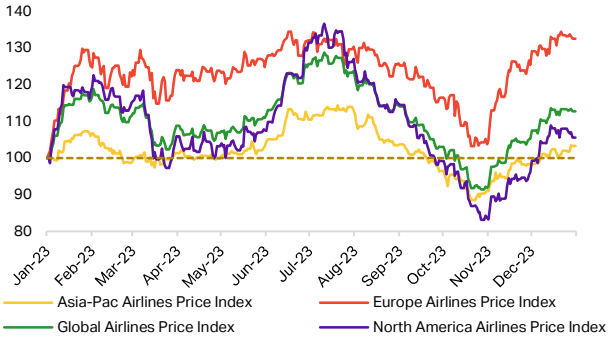
Sources: IATA Sustainability and Economics, The Airline Analyst

Chart 35: Global Airlines Price Return Index vs MSCI ACWI, Dec19=100



Sources: Refinitiv

Chart 36: Relative Regional Airline Price Index performance, Jan23=100



Sources: Refinitiv

V. Regional Outlook

Africa

- African airlines experienced significant growth in air passenger traffic since spring 2022, and they continued this upward trend into the final quarter of 2023. They reported 45.9 billion RPKs in total, an impressive surge of 18.6% from the same quarter in 2022, narrowing the gap to less than 1% from pre-pandemic levels (Chart 37). The total seat capacity offered by these carriers increased by an even larger 24.8% compared to the previous year. This resulted in a reduction in the average PLF by 4 ppt from a record high in the fourth quarter of 2022 to 72% in the same quarter of 2023, marking the lowest figure among all regions. Despite this, the PLF in Q4 2023 exceeded that of 2019 by 0.9 ppt.

- International traffic represents over 80% of the passenger RPKs for African airlines, which highlights its crucial role in their operations. Furthermore, as illustrated in Chapter III, Africa is among the only two regions that fully recovered to pre-pandemic international connectivity. In the fourth quarter of 2023, African airlines transported 37.7 billion international RPKs, marking a strong 18% rise from the corresponding period in 2022 (Chart 38). However, this figure remains 4.3% below the levels achieved in the fourth quarter of 2019, indicating room for further recovery in 2024.

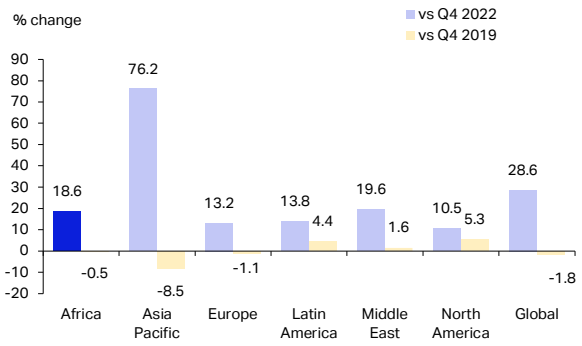
- During the fourth quarter, African airlines experienced a small 2.3% uptick in air cargo traffic relative to the same period in 2022, maintaining levels comparable to pre-pandemic benchmarks set in 2019 (Chart 39). This performance is encouraging in the face of the global economic shift towards more inward-looking policies, which has impacted cross-border trade volumes. Air cargo traffic on the Africa-Asia trade lane demonstrated the most notable growth, exceeding the levels of the previous year by more than one third.

- The recovery in air ticket sales for the African region has outpaced the global average since spring 2022, showing a significant upward trend (Chart 40). By the fourth quarter of 2023, the enthusiasm for air travel to Africa exceeded pre-pandemic levels. Specifically, in the week of Christmas, average ticket sales witnessed an approximate 20% increase over the corresponding period in 2019, highlighting the robustness of the recovery in holiday air travel to the region.

- The fourth quarter saw a robust air traffic rebound across the board in Africa's key markets (Chart 41). Egypt and Ethiopia recorded exceptional growth, with Egypt demonstrating a remarkable 54% surge in passenger numbers, highlighting a vibrant revival in tourism despite geopolitical challenges in adjacent regions. Ethiopia's passenger numbers increased over 30% YoY throughout 2023, settling at 32% above pre-pandemic levels in the fourth quarter. North African nations — Algeria, Morocco, and Tunisia — also exhibited significant rebounds, surpassing 2019 figures by over 25% in the same period. Nigeria and Kenya both achieved full recovery as early as 2022, and closed the fourth quarter 17% and 4% above pre-pandemic levels, respectively. By contrast, South Africa embraced its first quarterly recovery since 2019, culminating in a steadfast 28% YoY increase in Q4 following a gradual two-year recovery. The broad-based progress of Africa's key markets underscores a robust recovery trajectory across the continent, despite varying degrees of advancement and challenges.

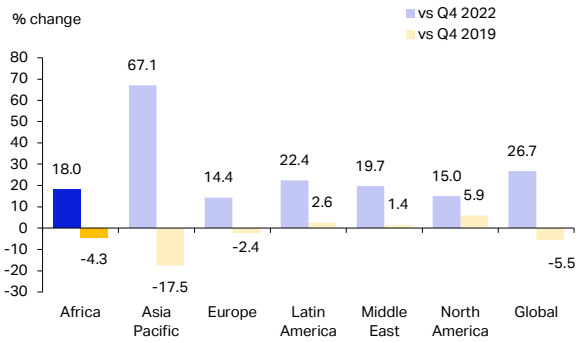
- Since early 2023, a consistent growth in new aircraft acquisitions could be observed among African airlines. This came as a breath of fresh air following two years of declining aircraft deliveries to the region, and a subsequent year of stagnation. Looking forward, a continued rise in aircraft deliveries is scheduled for 2024. Specifically, there will be an increase of approximately one-third, or nine additional aircraft compared to the past year. This strategic expansion reflects local airlines' commitment to enhancing their operational capacities and service offerings, in response to the anticipated rise in demand for air travel to the continent (Chart 42).

Chart 37: Growth in RPKs by airline region of registration, Africa



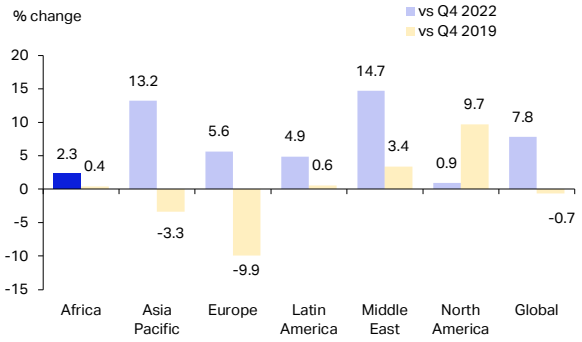
Source: IATA Sustainability and Economics, Monthly Statistics

Chart 38: Growth in international RPKs by airline region of registration, Africa



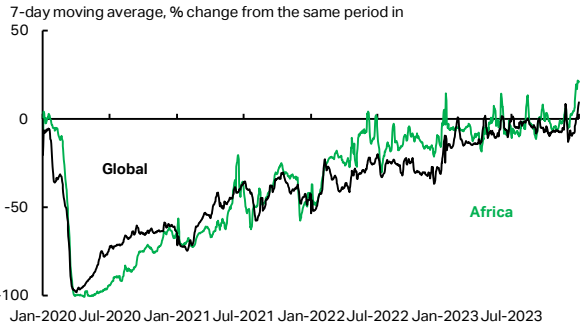
Source: IATA Sustainability and Economics, Monthly Statistics

Chart 39: Growth in CTKs by airline region of registration, Africa



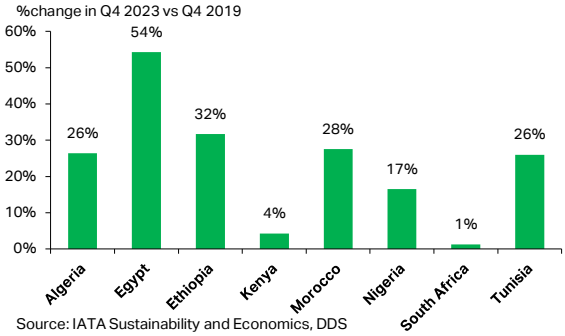
Source: IATA Sustainability and Economics, Monthly Statistics

Chart 40: Ticket sales by region (7-day moving average), Africa



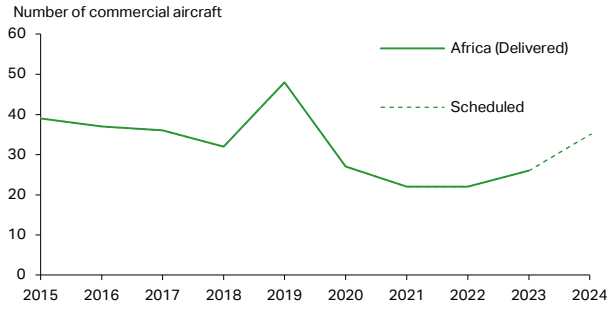
Source: IATA Sustainability and Economics, DDS

Chart 41: Passenger traffic (O-D) growth by country in Q4 2023, Africa



Source: IATA Sustainability and Economics, DDS

Chart 42: Aircraft deliveries in 2015-2024 (scheduled), Africa



Source: IATA Sustainanbility and Economics using Cirium

	World share[1]	% year-on-year vs Q4 2022 RPK	ASK	PLF (%-pt)	% year-on-year vs Q4 2019 RPK	ASK	PLF (%-pt)	PLF (level)
TOTAL MARKET	***100.0%***	**28.6%**	**27.1%**	**1.0%**	**-1.8%**	**-2.6%**	**0.7%**	**82.4%**
Africa	*2.1%*	18.6%	24.8%	-3.8%	-0.5%	-1.7%	0.9%	72.0%

[1]% of industry RPKs in 2023

Note: The total industry and regional grow th rates are based on a constant sample of airlines combining reported data and estimates for missing observations. Airline traffic is allocated according to the region in w hich the carrier is registrated; it should not be considered as regional traffic.

Americas

- In Q4 2023, North American and Latin American airlines exhibited solid growth in total RPKs, recording increases of 10.5% and 13.8% YoY, respectively. This sustained demand allowed the Americas to remain the front runners in surpassing pre-pandemic passenger traffic levels. In particular, North American airlines outpaced their Q4 2019 levels by 5.3%, with their Latin American counterpart at 4.4% (Chart 43).

- Compared to the previous quarter, the Americas saw slightly lower annual growth of international RPKs in Q4. Nonetheless, Latin America positioned itself just below the global average with its 22.4% YoY increase in international RPKs (Chart 44). On the other hand, North America reported the second-lowest annual growth rate among all regions with a 15% YoY increase, slightly above Europe. It should be noted that these growth rates, which are still in the double digits and thus unusually high compared to pre-pandemic standards, are calculated from a high base in 2022. Airlines registered in the Americas surpassed 2019 levels already in the first half of 2023, and have been experiencing elevated traffic volumes throughout the year. Similarly, as discussed in Chapter III, Latin America & the Caribbean continued to lead in terms of the post-pandemic recovery of international air connectivity in Q4.

- Cargo traffic for North American carriers grew during the last quarter, settling 0.9% above Q4 2022 and 9.7% above Q4 2019 levels. North America's air cargo demand recovery can partly be explained by a stronger Christmas season that supported booming e-commerce. Latin American carriers followed a slightly different trend, achieving 4.9% growth in CTKs above Q4 2022 levels but remaining merely surpassing 2019 levels. (Chart 45).

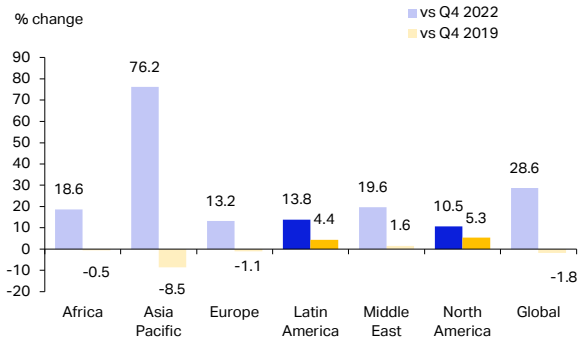
- Ticket sales in the last quarter of 2023 echoed a positive trend, confirming the expected increases towards the year-end. It is well known that in North America, the winter months trigger the high season for Caribbean beach destinations., allowing the Dominican Republic (+48%) and Jamaica (+16%) to explain Canada's international market recovery in the 4th quarter. Although ticket sales in the region slightly outperformed the global average, the gap narrowed in Q4 as global ticket sales gathered momentum and recovered to their pre-crisis volume (Chart 46).

- On the North American side, Canada and the US exceeded 2019 levels in Q4's air passenger traffic. Canada's strong growth of 38% above Q4 2019, driven by the international segments surpassing 2019 levels, gave way to the end of the recovery process in North America (Chart 47).

- In Latin America, most key markets continued to grow YoY in the fourth quarter, despite already surpassing 2019 levels (e.g., Colombia). Dominican Republic, Ecuador, and Mexico led Latin America's air traffic recovery, each surpassing 2019 levels by more than 17%. Notably, the Dominican Republic demonstrated exceptional traffic performance, with a 52% growth rate compared to Q4 2019. This was supported by the public policies promoted by the government during the pandemic and the importance gained by a local carrier, which efficiently connected the Caribbean with Central and South America. Another example of strong recovery in the region is Ecuador, which implemented a tax reduction on the local tourism tax mid-year, achieving a remarkable increase of 39% relative to Q4 2019 levels in Q4.

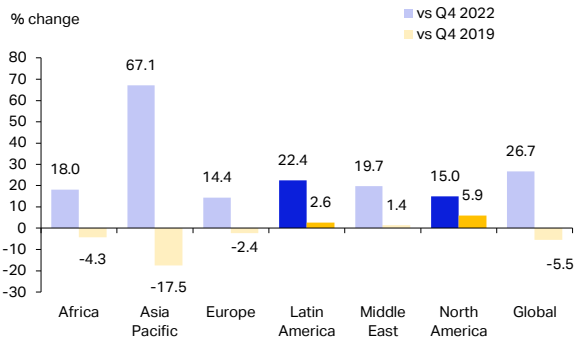
- Around one-third of global aircraft deliveries in 2023 were destined for North America, primarily the US. After surpassing 2019 levels in 2022, deliveries to North American airlines increased by an additional 95 units in 2023, aligning with the region's anticipated full recovery in passenger traffic this year. In Latin America, deliveries to airlines rebounded to pre-pandemic levels in 2022 as well, with increased capacity by regional carriers during 2023, in line with rising demand for air travel in the area (Chart 48).

Chart 43: Growth in RPKs by airline region of registration, Americas



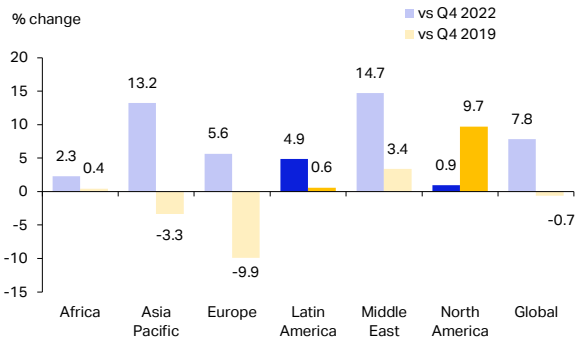
Source: IATA Sustainability and Economics, Monthly Statistics

Chart 44: Growth in international RPKs by airline region of registration, Americas



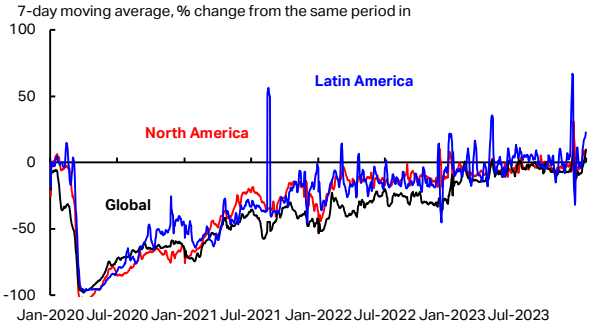
Source: IATA Sustainability and Economics, Monthly Statistics

Chart 45: Growth in CTKs by airline region of registration, Americas



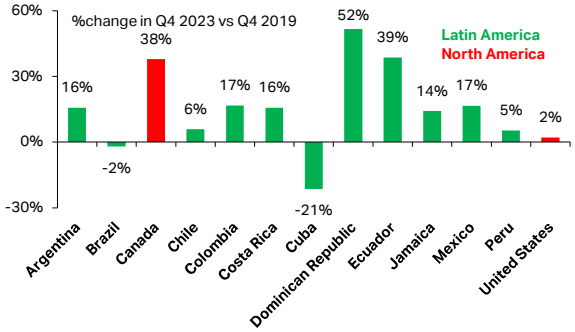
Source: IATA Sustainability and Economics, Monthly Statistics

Chart 46: Ticket sales by region (7-day moving average), Americas



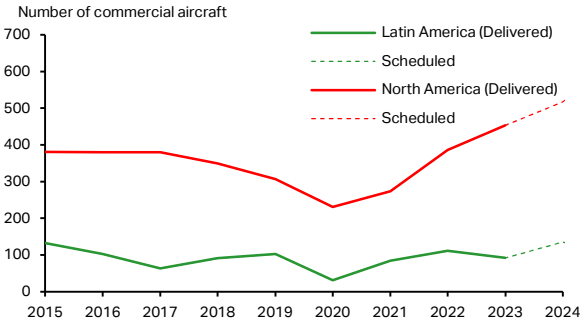
Source: IATA Sustainability and Economics, DDS

Chart 47: Passenger traffic (O-D) growth by country in Q4 2023, Americas



Source: IATA Sustainability and Economics, DDS

Chart 48: Aircraft deliveries in 2015-2024 (scheduled), Americas



Source: IATA Sustainanbility and Economics using Cirium

	World share [1]	% year-on-year vs Q4 2022			% year-on-year vs Q4 2019			
		RPK	ASK	PLF (%-pt)	RPK	ASK	PLF (%-pt)	PLF (level)
TOTAL MARKET	***100.0%***	***28.6%***	***27.1%***	***1.0%***	***-1.8%***	***-2.6%***	***0.7%***	***82.4%***
Latin America	*5.5%*	13.8%	10.2%	2.7%	4.4%	1.9%	2.0%	84.1%
North America	*24.2%*	10.5%	11.9%	-1.0%	5.3%	5.7%	-0.3%	83.4%

[1] % of industry RPKs in 2023

Note: The total industry and regional grow th rates are based on a constant sample of airlines combining reported data and estimates for missing observations. Airline traffic is allocated according to the region in w hich the carrier is registrated; it should not be considered as regional traffic.

Asia Pacific

- Airlines registered in the Asia-Pacific region continued with a strong recovery momentum in the fourth quarter of 2023, with RPKs growing by an outstanding 76.2% compared to the same quarter in the previous year (Chart 49). This was the highest growth rate among all the regions. However, Asia-Pacific still exhibits the largest gap to pre-pandemic levels, currently at -8.5%.

- Available Seat-Kilometers (ASKs)for the Asia-Pacific airlines expanded by an almost equally impressive 66.7% YoY in the fourth quarter, achieving 91.3% of the pre-pandemic figures, slightly below the 92.9% observed in the third quarter. The PLF reached 81.6%, marginally surpassing pre-pandemic levels by 0.1 ppt. This further underscores the remarkable rebound of airlines in this region.

- International RPKs within the region also saw a notable annual surge of 67.1% in the fourth quarter (Chart 50). However, the recovery to pre-Covid-19 levels remained lagged behind other regions, standing at 82.5%, and 84.6% in terms of air connectivity as mentioned in Chapter III. Despite this, the disparity in international traffic recovery between Asia-Pacific and other regions has been narrowing, with sequential improvements from the first quarter through to the fourth quarter of 2023.

- Cargo traffic for airlines in Asia-Pacific rose by 13.2% YoY in the fourth quarter of 2023, continuing the positive trajectory observed in the third quarter (Chart 51). Yet, compared to pre-pandemic levels, the fourth quarter showed a decline of 3.3%. This is indicative of a subdued demand related to economic decelerations in critical markets and trade tensions with key partners.

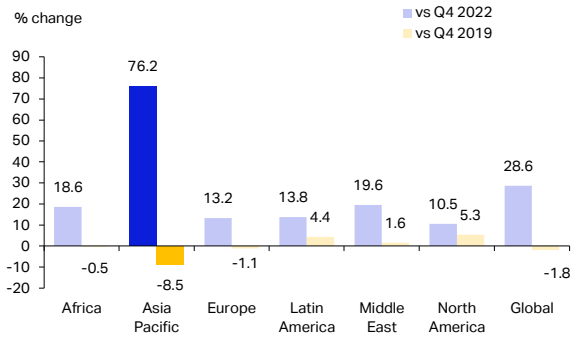
- The fourth quarter of 2023 also maintained the year-long trend of ticket sales aligning with global averages, following the easing of most border restrictions and mirroring consistently robust demand throughout the year (Chart 52).

- Passenger traffic recovery rates across Asia Pacific's key markets displayed considerable variation in Q4 (Chart 53). Hong Kong stood out as an exceptional performer, with its passenger traffic increasing nearly fourfold from the previous year, resulting in a remarkable 289% growth in the fourth quarter. This surge, driven by the city's reopening policy, highlighted Hong Kong's swift action in recovering back to pre-pandemic levels—a gap that narrowed from 64% at the start of the year to just 15% by the end. China and Chinese Taipei also witnessed substantial growth, with passenger numbers more than doubling compared to the year before. China, in particular, saw its air passenger traffic rise in the first half of the year, before surpassing 2019 levels by the third quarter, although the growth slightly moderated in the fourth quarter.

- India and Japan experienced a revival in travel enthusiasm, particularly for domestic journeys, propelling their air traffic back and above the benchmarks of 2019 by the fourth quarter. Australia, too, continued its upward trajectory in air passenger numbers, but more from international market, and maintaining growth after reaching pre-pandemic levels earlier in the year. By contrast, many other markets in the regions faced a slower, more gradual rebound, with passenger volumes in Q4 at around 85-95% of the levels reported in 2019.

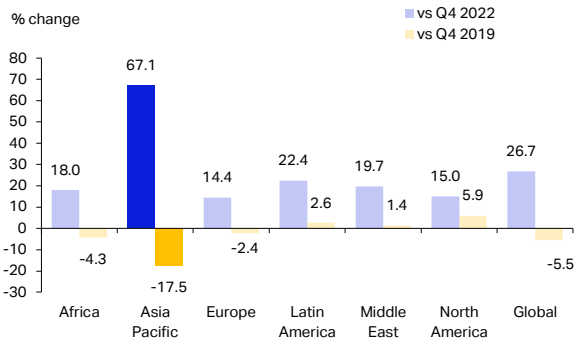
- New aircraft deliveries in the region remained low since Covid-19, but the significant increase that is expected in 2024 will put the region in good stead towards full recovery (Chart 54).

Chart 49: Growth in RPKs by airline region of registration, Asia Pacific



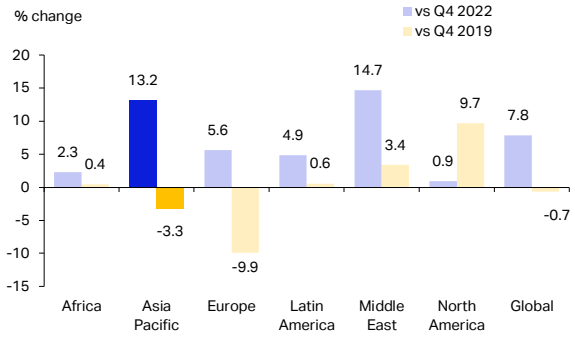
Source: IATA Sustainability and Economics, Monthly Statistics

Chart 50: Growth in international RPKs by airline region of registration, Asia Pacific



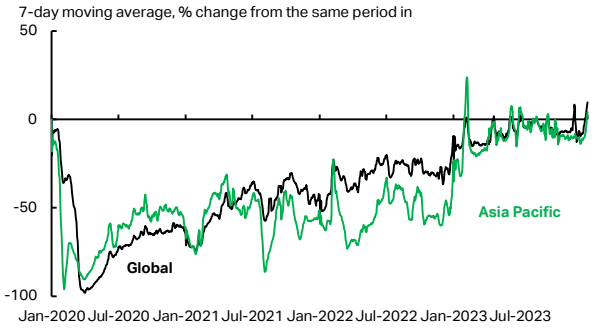
Source: IATA Sustainability and Economics, Monthly Statistics

Chart 51: Growth in CTKs by airline region of registration, Asia Pacific



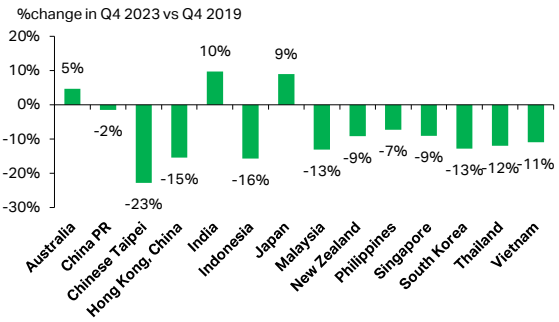
Source: IATA Sustainability and Economics, Monthly Statistics

Chart 52: Ticket sales by region (7-day moving average), Asia Pacific



Source: IATA Sustainability and Economics, DDS

Chart 53: Passenger traffic (O-D) growth by country in Q4 2023, Asia Pacific



Source: IATA Sustainability and Economics, DDS

Chart 54: Aircraft deliveries in 2015-2024 (scheduled), Asia Pacific

Source: IATA Sustainanbility and Economics using Cirium

	World share[1]	% year-on-year vs Q4 2022			% year-on-year vs Q4 2019			
		RPK	ASK	PLF (%-pt)	RPK	ASK	PLF (%-pt)	PLF (level)
TOTAL MARKET	***100.0%***	***28.6%***	***27.1%***	***1.0%***	***-1.8%***	***-2.6%***	***0.7%***	***82.4%***
Asia Pacific	*31.7%*	76.2%	66.7%	4.4%	-8.5%	-8.7%	0.1%	81.6%

[1]% of industry RPKs in 2023

Note: The total industry and regional grow th rates are based on a constant sample of airlines combining reported data and estimates for missing observations. Airline traffic is allocated according to the region in w hich the carrier is registrated; it should not be considered as regional traffic.

Europe

- European carriers have consistently shown positive growth on an annual basis since the start of the recovey, and extended this trend into the final quarter of 2023. During the fourth quarter, Europe airlines reported over half a trillion RPKs, marking a 13.2% increase from the corresponding quarter in 2022 (Chart 55). This figure fell slightly short of the RPKs achieved in 2019. In the meantime, the total number of seats offered by the European airlines saw a similar increase in balance. Thus European carriers saw an impressive PLF for the quarter at 84.7%, the highest among all regions. This achievement, although a decrease from the summer peak, underscores the airlines' operational efficiency and flight profitability during a period traditionally characterized by lower travel demand. Importantly, when adjusting for seasonal variations by comparing to the fourth quarter of previous years, the PLF in 2023 exceeds that of both 2022 and 2019 by 0.5 ppt.

- Collectively, the European airlines are the biggest player in the international air passenger market, representing more than one-third of the global international RPKs. In the final quarter, these airlines transported 471 billion international RPKs, marking the highest contribution among all geographical regions. This performance not only marks a 14.4% increase compared to the same period in 2022 but also approaches pre-pandemic levels, falling merely 2.4% short of the figures recorded in 2019 (Chart 56).

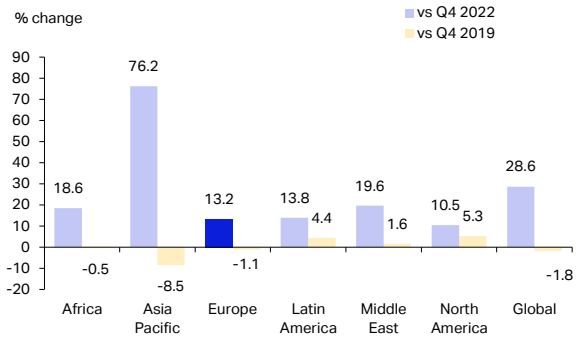
- During the fourth quarter, European airlines experienced an increase in air cargo traffic, registering a 5.6% rise compared to the corresponding period in 2022 (Chart 57). This is in line with the fast-growing CLF on both the Europe-North America route and the Europe-Middle East trade lane, as explained in Chapter III. However, when compared to the pre-pandemic benchmarks of 2019, the recovery of European carriers in the air cargo sector lags behind, with volumes still at -9.9%. This situation can be attributed to a global economic climate that has become more introspective, reducing the volume of cross-border trade. Additionally, geopolitical tensions within the region have further impacted air cargo traffic, both inbound and outbound.

- Consumer enthusiasm for air travel remained strong through the fourth quarter, with ticket sales for Europe not only recovering but also surpassing the levels seen in 2019 as the year drew to a close (Chart 58). During the week of Christmas, the average ticket sales had climbed approximately 15% higher than the figures recorded during the same week in 2019, underscoring a robust recovery in holiday air travel.

- In the fourth quarter, key markets across Europe experienced positive YoY growth. Notably, Hungary and Poland achieved growth exceeding 25% compared to Q4 2022, with Hungary almost recovered and Poland 15% above pre-pandemic levels. In the meantime, Finland and Sweden in the northern Europe are still more than 15% below pre-pandemic air passenger volumes as of Q4. Germany also faced challenges in its recovery, with air passenger traffic in the fourth quarter still 16% below 2019's benchmark, mirroring its weak economic performance. In contrast, Mediterranean countries emerged as leaders in Europe's travel recovery. In particular, Portual and Greece welcomed over 20% more passengers than during the same period in 2019, underscoring the region's appeal and resilience in the face of economic challenges (Chart 59).

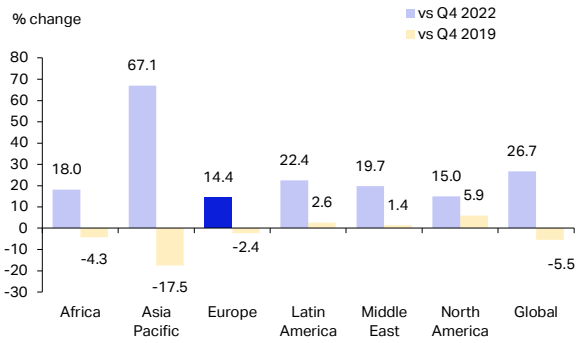
- European airlines display confidence in their traffic growth by continuing to acquire new aircraft in 2024. Maintaining steady growth in deliveries since 2020, these are projected to increase by around a third (117 aircraft) in 2024, marking the highest growth since 2016 (Chart 60).

Chart 55: Growth in RPKs by airline region of registration, Europe



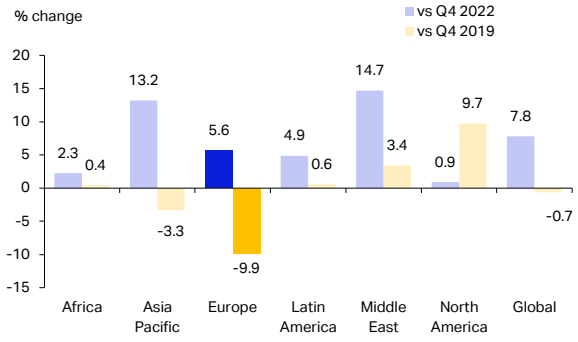
Source: IATA Sustainability and Economics, Monthly Statistics

Chart 56: Growth in international RPKs by airline region of registration, Europe



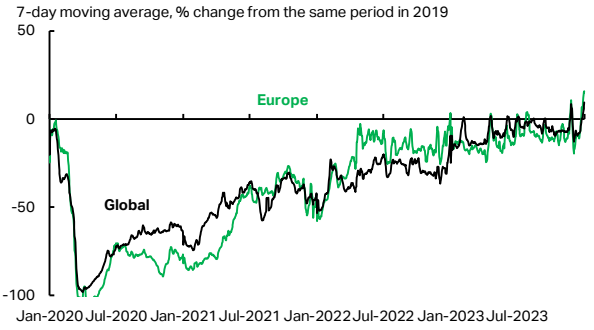
Source: IATA Sustainability and Economics, Monthly Statistics

Chart 57: Growth in CTKs by airline region of registration, Europe



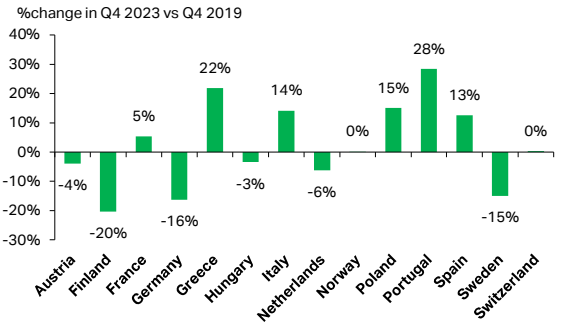
Source: IATA Sustainability and Economics, Monthly Statistics

Chart 58: Ticket sales by region (7-day moving average), Europe



Source: IATA Sustainability and Economics, DDS

Chart 59: Passenger traffic (O-D) growth by country in Q4 2023, Europe



Source: IATA Sustainability and Economics, DDS

Chart 60: Aircraft deliveries in 2015-2024 (scheduled), Europe

Source: IATA Sustainanbility and Economics using Cirium

	World share [1]	% year-on-year vs Q4 2022			% year-on-year vs Q4 2019			
		RPK	ASK	PLF (%-pt)	RPK	ASK	PLF (%-pt)	PLF (level)
TOTAL MARKET	***100.0%***	***28.6%***	***27.1%***	***1.0%***	***-1.8%***	***-2.6%***	***0.7%***	***82.4%***
Europe	*27.1%*	13.2%	12.5%	0.5%	-1.1%	-1.7%	0.5%	84.7%

[1]% of industry RPKs in 2023

Note: The total industry and regional grow th rates are based on a constant sample of airlines combining reported data and estimates for missing observations. Airline traffic is allocated according to the region in w hich the carrier is registrated; it should not be considered as regional traffic.

Middle East

- Middle East carriers continued their robust performance through the fourth quarter of 2023, registering a solid 19.6% YoY increase in RPKs (Chart 61). This growth enabled the region's airlines to outperform their Q4 2019 levels by 1.6%, contrasting the -1.8% observed for the industry average, and signaling a faster post-Covid-19 recovery. International RPKs for Middle East carriers showed a similar upward trend with Q4 YoY levels at 19.7% and standing 1.4% above 2019 levels (Chart 62).

- The evolution of capacity in the Middle East draws a similar picture, with ASKs growing by 19% YoY in Q4 2023. Middle East carriers adeptly navigated through geopolitical tensions, continuing to add capacity to meet the surging demand. Growth was observed on existing routes as well as through the establishment of new ones, especially across the United Arab Emirates (UAE) and Saudi Arabia. As a direct result of the stronger RPK growth, the passenger load factor for the region increased by 0.4 ppt compared to the same period last year, showcasing efficient utilization of the added capacity.

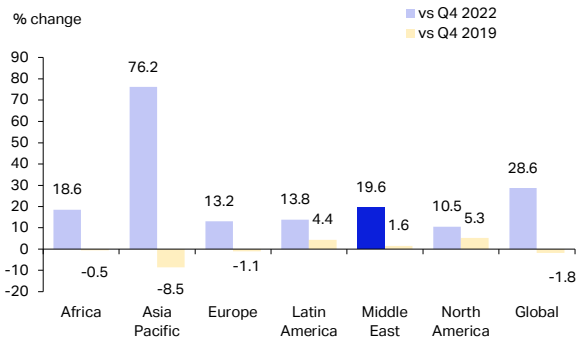
- Cargo activity for Middle East airlines also saw a robust improvement in the fourth quarter of 2023, with a 14.7% increase compared to the same period last year and a 3.4% increase compared to the same period in 2019. This performance positions Middle East carriers at the forefront among all regions in terms of annual cargo activity improvement (Chart 63). The strong economic activity and increased government spending, particularly in the Gulf countries, have been primary drivers behind this positive trend.

- Ticket sales appear to follow a similar pattern as the global market, indicating an alignment with the broader aviation sector (Chart 64). This resilience is noteworthy especially in the final quarter, as the tension in the Middle East appears to have had only a localized impact with a minimal effect on the broader regional trend.

- In 2023, passenger traffic on Middle Eastern key markets saw robust growth, achieving figures above pre-pandemic levels by the fourth quarter. While growth rates varied across the region, Saudi Arabia led with a notable increase of 28% compared to the same period before the pandemic. The UAE, buoyed by its role as the host for numerous international events, including the significant 28th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP28), and a general surge in tourism activity, saw its air passenger traffic rise to 24% above the levels of Q4 2019. Qatar also displayed strong performance, achieving 19% recovery. Meanwhile, Kuwait, despite challenges related to tourism and some restrictions on family visas, managed to match its pre-pandemic traffic figures, showing a modest growth of 4% from the same period in 2019 (Chart 65).

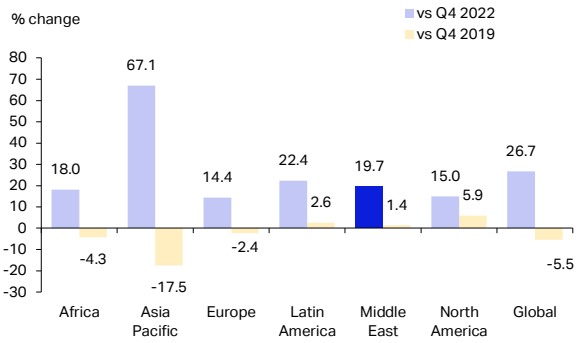
- In 2023, airlines in the Middle East took delivery of 96 new aircraft, marking an increase of 41 units over 2022 and exceeding the 85 aircraft delivered in 2019. This period witnessed a notable shift in the type of aircraft being delivered, moving from a predominance of widebody jets in 2019 to a focus on narrowbody models starting in 2020, which could potentially improve PLF. A similar volume of aircraft deliveries is anticipated for 2024 (Chart 66).

Chart 61: Growth in RPKs by airline region of registration, Middle East



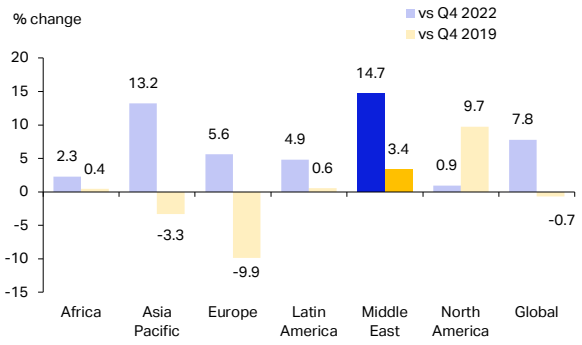
Source: IATA Sustainability and Economics, Monthly Statistics

Chart 62: Growth in international RPKs by airline region of registration, Middle East



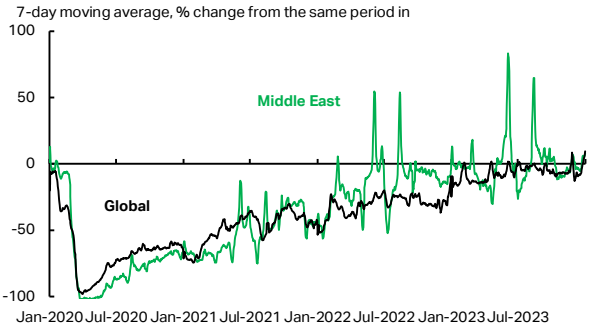
Source: IATA Sustainability and Economics, Monthly Statistics

Chart 63: Growth in CTKs by airline region of registration, Middle East



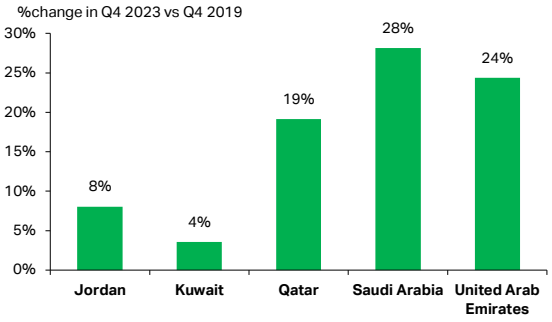
Source: IATA Sustainability and Economics, Monthly Statistics

Chart 64: Ticket sales by region (7-day moving average), Middle East



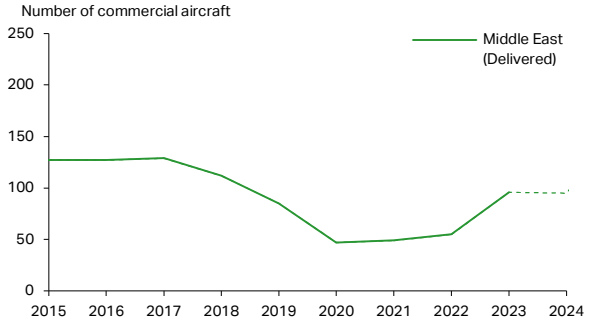
Source: IATA Sustainability and Economics, DDS

Chart 65: Passenger traffic (O-D) growth by country in Q4 2023, Middle East



Source: IATA Sustainability and Economics, DDS

Chart 66: Aircraft deliveries in 2015-2024 (scheduled), Middle East



Source: IATA Sustainanbility and Economics using Cirium

	World share[1]	% year-on-year vs Q4 2022			% year-on-year vs Q4 2019			
		RPK	ASK	PLF (%-pt)	RPK	ASK	PLF (%-pt)	PLF (level)
TOTAL MARKET	***100.0%***	***28.6%***	***27.1%***	***1.0%***	***-1.8%***	***-2.6%***	***0.7%***	***82.4%***
Middle East	*9.4%*	19.6%	19.0%	0.4%	1.6%	-3.8%	4.1%	78.8%

[1]% of industry RPKs in 2023

Note: The total industry and regional grow th rates are based on a constant sample of airlines combining reported data and estimates for missing observations. Airline traffic is allocated according to the region in w hich the carrier is registrated; it should not be considered as regional traffic.

VI. Appendix

Table A: Top 100 countries based on the International Connectivity Index 2023

Countries	Connectivity Index 2023	Global Ranking 2019	Global Ranking 2023	Difference in ranking between 2019 and 2023	Growth 2019-2023
United States	51,281,219	1	1	=	-8%
United Kingdom	38,542,938	3	2	↑1	-9%
Germany	29,798,610	4	3	↑1	-18%
Spain	27,447,356	6	4	↑2	-5%
Italy	23,454,924	7	5	↑2	-8%
Japan	23,062,576	5	6	↓1	-28%
France	22,148,875	9	7	↑2	-8%
United Arab Emirates	21,707,518	10	8	↑2	-2%
China	20,781,696	2	9	↓7	-55%
India	18,676,897	13	10	↑3	0%
Thailand	16,990,211	8	11	↓3	-31%
Turkey	16,634,767	18	12	↑6	22%
South Korea	16,217,971	11	13	↓2	-24%
Canada	15,880,387	15	14	↑1	-11%
Singapore	15,454,299	14	15	↓1	-16%
Mexico	15,373,672	19	16	↑3	17%
Taiwan	12,812,030	16	17	↓1	-25%
Saudi Arabia	12,755,965	27	18	↑9	27%
Hong Kong (SAR)	11,874,277	12	19	↓7	-44%
Netherlands	11,295,937	20	20	=	-13%
Vietnam	10,797,540	24	21	↑3	-11%
Switzerland	10,670,227	23	22	↑1	-13%
Malaysia	10,583,857	17	23	↓6	-25%
Australia	10,351,883	22	24	↓2	-18%
Indonesia	10,100,185	21	25	↓4	-22%
Portugal	9,372,333	28	26	↑2	11%
Qatar	9,155,851	29	27	↑2	8%
Philippines	8,685,424	25	28	↓3	-21%
Greece	8,320,142	31	29	↑2	16%
Ireland	7,098,413	30	30	=	-2%

Egypt	6,706,950	38	31	↑7	33%
Denmark	6,020,214	33	32	↑1	-10%
Austria	5,971,741	32	33	↓1	-16%
Poland	5,906,043	35	34	↑1	0%
Sweden	4,854,388	34	35	↓1	-23%
Russian Federation	4,754,730	26	36	↓10	-56%
Israel	4,627,330	39	37	↑2	-3%
Brazil	4,568,445	37	38	↓1	-11%
Pakistan	4,552,922	42	39	↑3	6%
Belgium	4,444,215	36	40	↓4	-16%
Norway	4,238,242	40	41	↓1	-11%
Morocco	4,113,704	44	42	↑2	6%
Dominican Republic	4,078,969	50	43	↑7	20%
Kuwait	3,777,241	43	44	↓1	-7%
Colombia	3,594,470	53	45	↑8	20%
Finland	3,281,255	41	46	↓5	-27%
Romania	3,030,284	52	47	↑5	-3%
New Zealand	2,974,764	47	48	↓1	-18%
Bangladesh	2,873,076	60	49	↑11	21%
Oman	2,805,185	46	50	↓4	-25%
South Africa	2,616,474	51	51	=	-20%
Bahrain	2,503,007	57	52	↑5	2%
Hungary	2,462,700	54	53	↑1	-16%
Czech Republic	2,442,478	48	54	↓6	-32%
Panama	2,391,542	61	55	↑6	2%
Iran	2,349,799	58	56	↑2	-4%
Ethiopia	2,319,167	63	57	↑6	5%
Argentina	2,292,720	55	58	↓3	-18%
Cyprus	2,210,586	66	59	↑7	5%
Jordan	2,141,683	64	60	↑4	0%
Algeria	2,140,089	68	61	↑7	4%
Croatia	1,908,134	67	62	↑5	-9%
Jamaica	1,891,736	75	63	↑12	12%
Sri Lanka	1,887,743	56	64	↓8	-27%
Serbia	1,870,535	78	65	↑13	23%
Cambodia	1,836,421	49	66	↓17	-49%

Peru	1,827,554	65	67	↓2	-14%
Lebanon	1,820,215	62	68	↓6	-20%
Tunisia	1,810,807	73	69	↑4	5%
Costa Rica	1,758,998	77	70	↑7	15%
Iceland	1,722,141	76	71	↑5	4%
Iraq	1,712,485	71	72	↓1	-11%
Chile	1,676,681	69	73	↓4	-17%
Maldives	1,594,456	82	74	↑8	21%
Kazakhstan	1,592,481	80	75	↑5	9%
Uzbekistan	1,545,588	88	76	↑12	48%
Nepal	1,493,129	79	77	↑2	2%
Kenya	1,475,676	81	78	↑3	4%
Macau (SAR)	1,464,740	59	79	↓20	-39%
Cuba	1,381,068	72	80	↓8	-25%
Bulgaria	1,363,366	74	81	↓7	-20%
El Salvador	1,241,651	87	82	↑5	15%
Bahamas	1,210,292	84	83	↑1	1%
Malta	1,110,965	86	84	↑2	-5%
Azerbaijan	1,084,397	90	85	↑5	11%
Ecuador	1,001,348	92	86	↑6	5%
Latvia	987,784	83	87	↓4	-20%
Nigeria	983,129	85	88	↓3	-17%
Georgia	958,315	94	89	↑5	14%
Mauritius	953,627	91	90	↑1	0%
Guatemala	891,050	97	91	↑6	21%
Albania	887,303	106	92	↑14	76%
Luxembourg	873,268	89	93	↓4	-12%
Myanmar	832,078	70	94	↓24	-58%
Armenia	803,030	103	95	↑8	43%
Lithuania	694,284	95	96	↓1	-11%
Tanzania	662,392	99	97	↑2	4%
Aruba	628,023	101	98	↑3	1%
Ghana	561,212	105	99	↑6	4%
Kyrgyzstan	539,467	120	100	↑20	46%

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