



# Quarterly Air Transport Chartbook

IATA Sustainability & Economics  
Q2 2023





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**Note to readers:** The Airline Financial Performance section will only be included in the Quarterly Air Transport Chartbook for Q2 and Q4 of each year. It will be excluded from the Q1 and Q3 reports as the latest airline financial performance review and forecast will be published in the concurrent releases of the June and December Global Outlook reports, respectively.



## Glossary

**ACTKs** – Available Cargo Tonne-Kilometers

**ASKs** – Available Seat-Kilometers

**ASPAC** – Asia Pacific

**ATKs** – Available Tonne-Kilometers

**BLF** – Breakeven Load Factor

**CLF** – Cargo Load Factor

**CTKs** – Cargo Tonne-Kilometers

**FRT** – Freight Tonnes

**GDP** – Gross Domestic Product

**LF** – Load Factor

**MoM** – Month-on-month

**MoUs** – Memoranda of understanding

**OPEC** – Organization of the Petroleum Exporting Countries

**Passenger Traffic O-D** – Passenger Traffic Origin-Destination

**PAX** – Revenue Passengers

**PLF** – Passenger Load Factor

**RPKs** – Revenue Passenger-Kilometers

**RTKs** – Revenue Tonne-Kilometers

**SA** – Seasonally adjusted

**SAF** – Sustainable Aviation Fuel

**QoQ** – Quarter-on-quarter

**USD** – United States Dollar

**WLF** – Weight Load Factor

**YoY** – Year-on-year



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## I. The Business Cycle

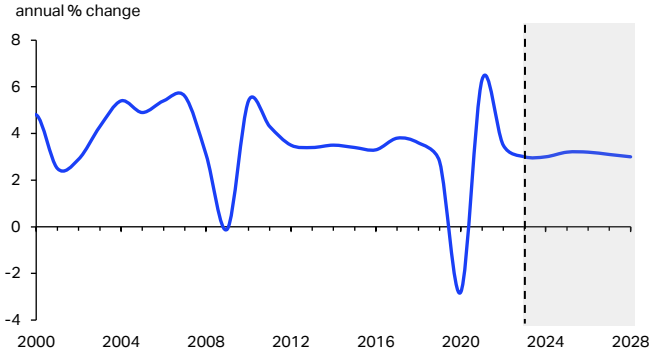
- Global GDP growth has defied most recessionist predictions so far this year. At around 3.0% on an annual basis, it is in line with the average global GDP growth rate since the 1970s. The frequently negative sentiment about the current business cycle is likely a reflection of the deceleration that has occurred, from 6.3% in 2021 and from 3.4% in 2022. Of course, any global average masks regional divergences, and there are countries in recession, or experiencing weak economic activity (Chart 1).
- The US economy grew by 0.6% in the second quarter of 2023 compared to the first (QoQ), and 2.6% versus the same quarter in 2022 (YoY). The euro area is lagging, growing by 0.3% QoQ and 0.6% YoY, and this outcome was improved by Germany exiting its technical recession (defined as two consecutive negative quarterly evolutions) in the second quarter. These performances nevertheless leave it up to the world's second largest economy, China, to deliver most of the world's growth impulse. China recorded a 0.8% growth rate in the second quarter QoQ, down from 2.2% in the first. The economy grew 6.3% YoY in the second quarter, but this rate is flattered by the very low base in 2022. The housing sector in particular is weakening in China, with property sales falling by 28% in June YoY. As the world had been relying on China for 30% of its growth for the decade between 2010 and 2019, China's slowing momentum is a cause for concern as to the strength of the global business cycle going forward (Chart 2).
- There is limited scope in the global economy to use fiscal policy to stimulate more economic activity, given the budget deficits accumulated during the covid years. Advanced economies' debt burden<sup>1</sup> has declined since 2020 but at 112.4% of GDP in 2023 it still exceeds the 2019 level. Emerging economies have a lower debt-to-GDP ratio than the advanced economies, at 67.5% in 2023, but this is higher than the 2020 peak of 64.8% and constitutes a disconcerting trend. China has accumulated debt faster than the group of emerging markets and its debt stands at 82.4% of GDP in 2023, up from 70.1% in 2020, of course, driven by the country's later and longer lasting covid-related restrictions. Nevertheless, these developments make any bold fiscal steps look unlikely both in China and elsewhere (Chart 3).
- On the monetary policy front, the general trend is still for higher policy interest rates as inflation is proving rather persistent. The US Federal Reserve has raised its policy rate from zero in early 2022 to 5.5% (top of the range), as of August 2023 - the most rapid tightening cycle in history - bringing the federal funds rate to its highest point in 22 years. Headline inflation in the US has indeed come down, to 3.2% YoY in July, but core inflation (excluding food and energy) stood at 4.7% YoY in the same month. The monetary policy tightening cycle might be approaching its peak, but real interest rates (the nominal rate minus the rate of inflation) are still likely to rise as inflation progressively declines. This will weigh on economic activity in the US and beyond, favoring the US dollar, and limiting credit availability (Chart 4, Chart 5).
- The astonishing strength of labor markets, mostly in advanced economies but also elsewhere, continues to protect the global economy against recession (Chart 6). In the US, the unemployment rate stood at 3.5% in July, close to historic lows, and Europe set a record low in June with 6.4% in the euro area and 5.9% in the European Union. In China, the overall unemployment rate is also low, at 5.3%, but youth unemployment has recorded several consecutive highs, again pointing to the slowing momentum in that economy.
- This leaves us with an assessment of the state of the business cycle as being in a relative sweet spot currently. With record employment, more people are earning incomes, and this dominates the negative impacts of higher prices. The day that unemployment rates start to increase, spending patterns could change rapidly, and the price sensitivity of demand for air transportation could rise. When that day comes will depend to a large extent on monetary policy and on developments in China. Of course, the longer

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<sup>1</sup> General government gross debt, % GDP, 2023, IMF

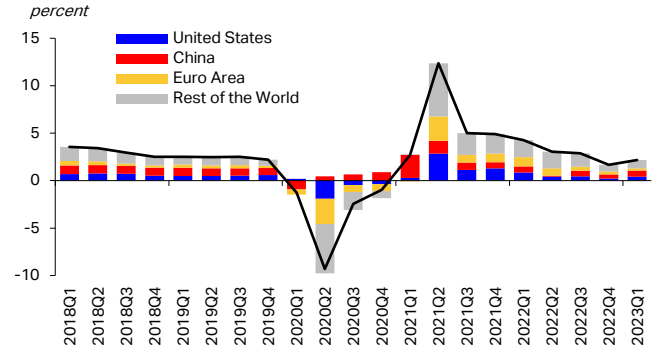
labor markets remain this strong, the tighter monetary policy is likely to be, and remain tight for longer. In all probability, these crossroads will become more apparent going forward.

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



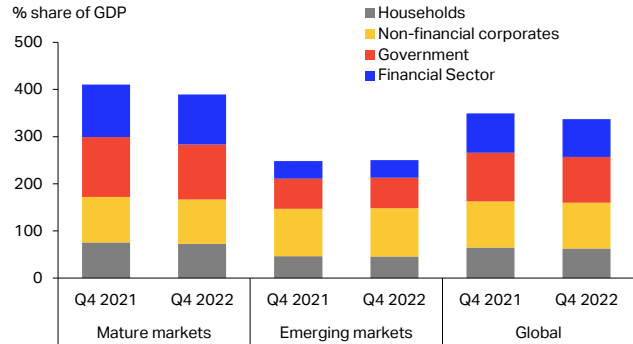
Source: International Monetary Fund (IMF), World Economic Outlook, July 2023

**Chart 2: Contribution from large economies to world GDP growth (%)**



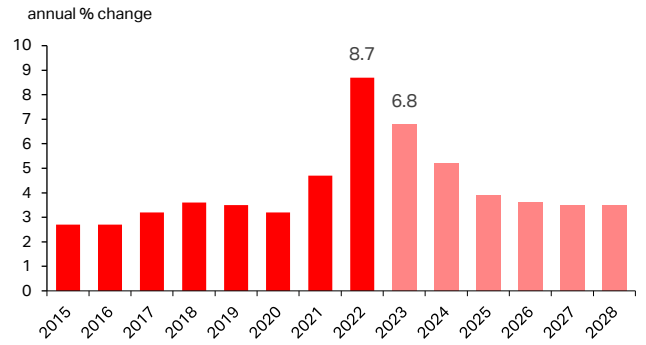
Source: World Bank Global Economic Monitor and author's calculations

**Chart 3: Global debt as share of GDP (%)**



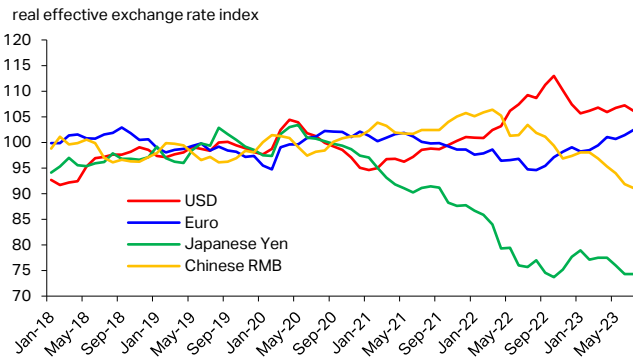
Source: Institute of International Finance (IIF)

**Chart 4: Global inflation as Consumer Price Index (CPI), annual % change**



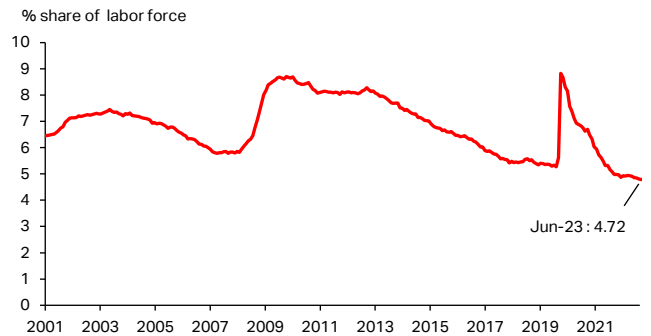
Source: IMF, World Economic Outlook, July 2023

**Chart 5: Foreign exchange rates**



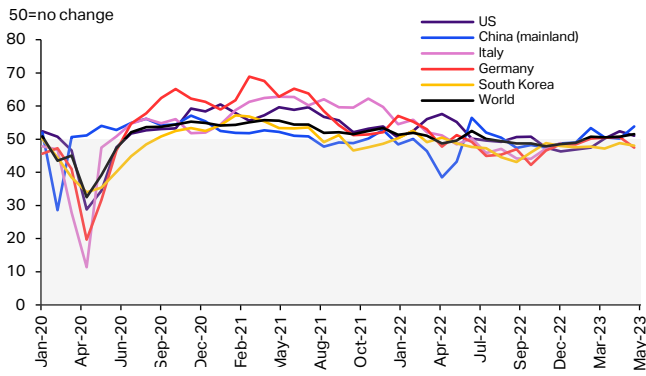
Source: BIS

**Chart 6: Unemployment rate in OECD, % share of labor force**



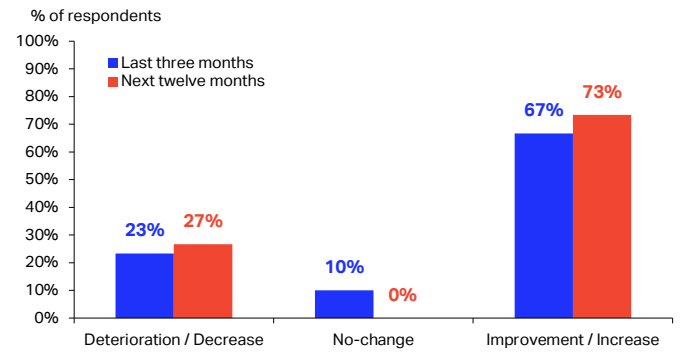
Source: OECD Stats

**Chart 7: Manufacturing output Purchasing Managers Index (PMI)**



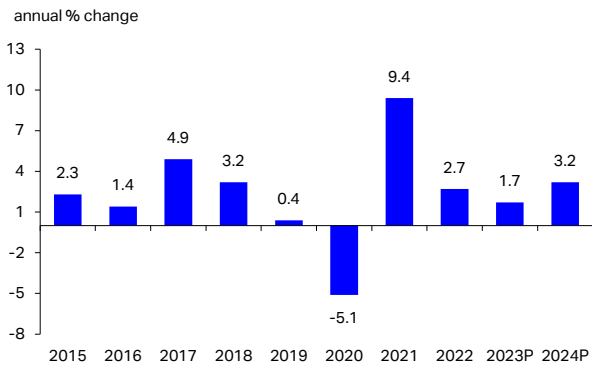
Source: Markit

**Chart 8: Business Survey Results: How does your profitability performance in the last 3 and the next 12 months compare with the same period last year?**



Source: IATA Business Conference Survey (July 2023)

**Chart 9: Volume of world merchandise trade, annual % change**



Source: World Trade Organization





## II. Sustainability and Energy Transition

- As the world aims to achieve ambitious climate targets, Sustainable Aviation Fuel (SAF) has emerged as a key feature within the aviation industry. SAF represents a broad category of fuels derived from non-fossil sources, including advanced biofuels and e-fuels, offering a sustainable alternative to conventional jet fuel. IATA estimates that SAF could contribute approximately 65% of the emissions abatement necessary for aviation to achieve its goal of reaching net zero CO<sub>2</sub> emissions by 2050.<sup>2</sup>

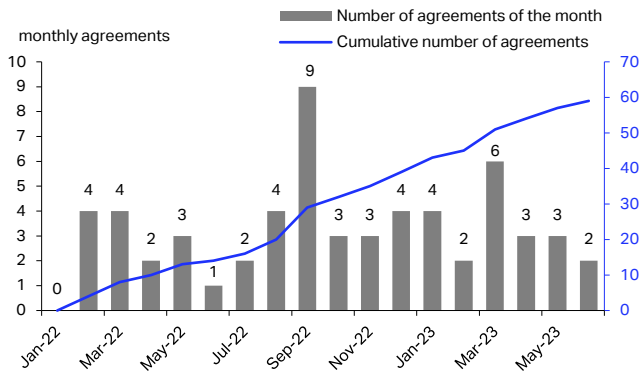
### Sustainable Aviation Fuel (SAF)

- Airlines have continued to announce their SAF offtake agreements, reaching 41 publicly announced SAF offtake agreements and 18 non-binding agreements since 2022, including both memoranda of understanding (MoUs) and letters of intent (Chart 10). Those agreements represent a total blended SAF volume of around 26 million metric tonnes. Considering the current blending ratio of 30-40% SAF and 60-70% conventional jet fuel, the total volume of neat SAF in these offtake agreements can be estimated to be around 8-10 million tonnes.
- Among the total of 59 SAF offtake agreements, 51 agreements are based on Biofuel SAFs from four pathways, namely Hydro-processed Esters and Fatty Acids (HEFA), HEFA Co-Processing, Syngas Fischer-Tropsch (Syngas-FT), and Alcohol to Jet (AtJ). The remaining eight are associated with E-Fuel SAF, derived from various Power-to-Liquid projects.
- As the HEFA pathway is the most mature biofuel technology for SAF production, it is the fuel of choice in the majority of SAF offtake agreements, followed by Syngas-FT (Chart 11). In the second quarter of 2023, SAF produced via the AtJ pathway reached approximately half of the total estimated SAF offtake volume, due to two relatively larger offtake deals inked in early 2022 and early 2023.
- Based on IATA's data sources, over 130 renewable fuel projects have been announced publicly by more than 90 producers in 30 countries across the world. Each of these projects has identified commitments to producing SAF in their product slate. Adding a few more projects in the second quarter of 2023, these projects represent an estimated overall renewable fuel capacity of 57 million tonnes by 2029 (Chart 12). Given a 3-to-6-year lag between project announcement and commercialisation, further capacity announcements for 2026 and beyond can be expected, leading to additional facilities and in turn SAF production.
- According to current data, the HEFA pathway continues to be the most prevalent for renewable fuel production, accounting for 85% of global renewable fuel capacity (Chart 13). With the announcement of a few additional AtJ projects in the second quarter of 2023, the share of AtJ has increased to 8% of total global capacity, followed by 4% of Syngas-FT. The PtL process and the Catalytic Hydrothermolysis Jet Fuel (CHJ) pathway account for the smallest shares of the cumulative renewable capacity, with PtL accounting for around 1% and CHJ accounting for less than 1%.

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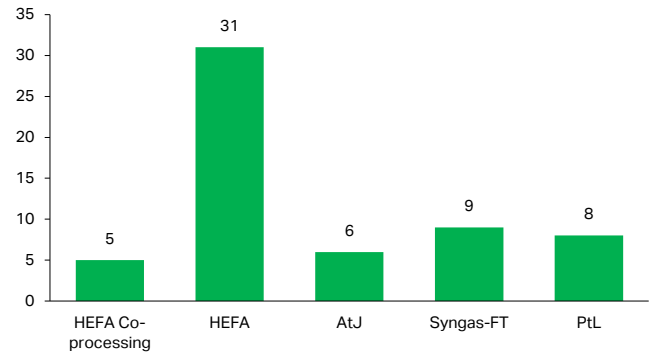
<sup>2</sup> Read more on our SAF policy approach: <https://www.iata.org/contentassets/d13875e9ed784f75bac90f000760e9998/saf-policy-2023.pdf>

**Chart 10: Total number of SAF offtake agreements (as of June 2023)**



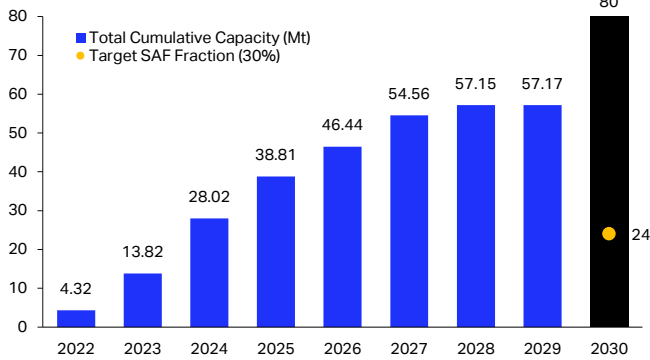
Source: IATA Sustainability and Economics

**Chart 11: Total number of SAF offtake agreements per pathway (as of June 2023)**



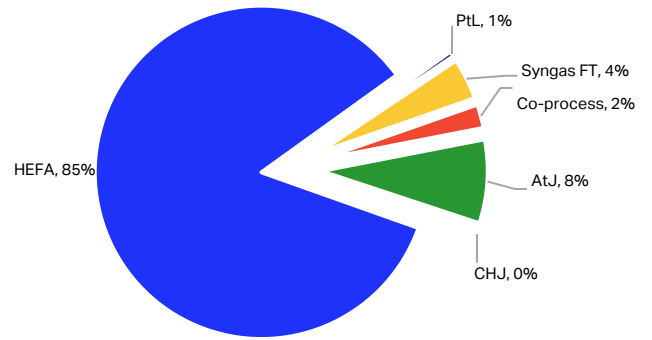
Source: IATA Sustainability and Economics

**Chart 12: Cumulative renewable fuel capacity vs. target SAF fraction (Mt)**



Source: IATA Sustainability and Economics

**Chart 13: Total renewable fuel capacity, % share by pathway**



Source: IATA Sustainability and Economics

## In Focus: Cover and Rotational Energy Crops

In the context of ramping up SAF production, cover and rotational energy crops can serve as a viable and highly impactful feedstock option, complementing existing options used in a traditional HEFA refinery, such as Used Cooking Oil, Tallow and Industrial Grease. As these will face supply constraints as SAF production increases, crops such as Camelina, Carinata, and Mustard Seeds, Pennycress, Miscanthus, and Switchgrasses, Ryegrass, Jatropha, and Safrinha can expand the pool of viable feedstock for the HEFA pathway.

Cover and rotational energy crop-use as a SAF feedstock can:

- 1 – Make use of farmlands' fallow period, specifically during the time when the traditional harvest is not grown.
- 2 – Avoid additional land-use change.
- 3 – Offer differing growth patterns and profiles to traditional harvests, and therefore generate strong yields in winter or better yet, on marginal or degraded land. The subsequent yields from cover crop production can deliver oil-rich biomasses.

Furthermore, the growth of cover crops can help improve soil nutrients, carbon capture, and overall agro-ecosystem health, instead of leaving the farmland in its fallow state between harvests, and thereby also raise the productivity of the traditional crop.<sup>3</sup>

<sup>3</sup> A recent [paper](#) showcased this in Europe, with the growth of Camelina as a cover crop on degraded land in Southern Europe, leading to a 24% increase in barley (cereal) yield during the traditional harvest period.



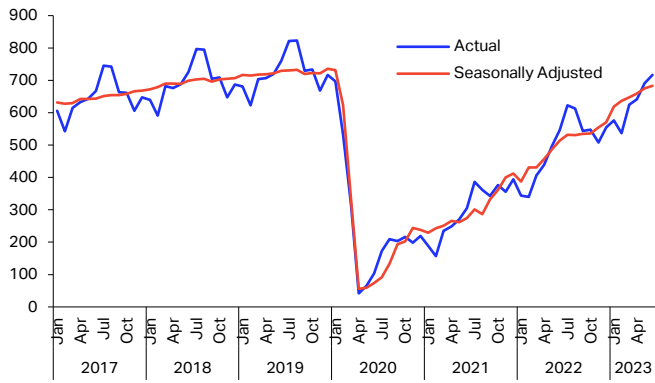
## III. Passenger and Cargo Traffic

### Passenger Traffic

- Passenger traffic, measured in revenue passenger-kilometers (RPKs), increased 40.5% YoY in Q2 2023, slightly outpacing seat capacity and signaling sustained strong demand for air travel industry-wide. As airlines continued to increase their operations, seat supply, measured in available seat-kilometers (ASKs), also grew 34.8% YoY. In the second quarter of 2023, industry-wide RPKs and ASKs were 6.2% and 5.4% below Q2 2019 levels, respectively. This reflects significant progress towards full recovery from Q2 2022, where RPKs and ASKs were 37.6% and 35.5% below pre-pandemic levels, respectively (Chart 14, Chart 15).
- The passenger load-factor (PLF) rose across all regions and reached near pre-pandemic levels in Q2 2023, except for Africa and North America where load factors had already recovered last year. At the industry level, the PLF was 82.4% in the second quarter, 0.7 percentage points (ppts) below the Q2 2019 level. The industry-wide improvement in load factors is a positive indicator of demand for air travel as well as of more profitable operations for airlines (Chart 16).
- Globally, domestic passenger traffic achieved full recovery this quarter, standing 4.5% above Q2 2019 levels. This development was driven by the resilience of the main domestic markets and the strong rebound in PR China, where passenger flows continued to increase since the start of this year and now exceed pre-pandemic levels. Domestic RPKs in China were 9.7% higher this quarter compared to Q2 2022. All monitored markets achieved full recovery in Q2 2023, except for Australia and Japan where traffic levels were 0.9% and 0.3% short of Q2 2019 levels, respectively (Chart 17).
- Overcoming the setback caused by long-lasting travel restrictions, the recovery in international traffic maintained its course in Q2 2023. Total international RPKs reached 87.6% of Q2 2019, a 7.9 ppt improvement from the recovery in the previous quarter. Asia Pacific airlines led in growth of international RPKs among the regions, with a 156.2% YoY increase, followed by Africa with 44.0%. Overall, the industry restored 87.6% of pre-covid international RPKs as all regions approached full recovery. North America surpassed pre-pandemic levels by 1.6%, and Middle Eastern carriers were just 0.6% short of full recovery. Meanwhile, RPKs performed by Asia Pacific carriers were still 33.5% below their 2019 levels (Chart 18).
- The main route areas we track continue to reflect these developments. In the second quarter, passenger flows between Europe and North America as well as Europe and the Middle East exceeded their pre-pandemic levels by 5.9% and 2.1%, respectively. International traffic within Europe was restored completely, with RPKs equaling those of Q2 2019. Passenger flows from Asia Pacific continue to grow rapidly and are closing the gap on remaining route areas. Between the Middle East and Asia, RPKs were only 7.1% shy of 2019 levels, contrasting greatly with competing routes such as Europe – Asia, which saw 33.5% less traffic compared to Q2 2019, reflecting the traffic diversions caused by the war in Ukraine.
- The breakdown of international traffic by cabin class shows that in Q2 2023, Premium traffic recovered ahead of Economy at the industry level. Total Premium RPKs were 8.1% below 2019 levels while Economy lagged further at 12.7% short on that basis. Most regions experienced a comparable development with the exception of Middle East and Latin America carriers (Chart 19). While it is still unclear if business travel will return to pre-pandemic patterns, the strong rebound of Premium traffic is a welcome development for the industry as it is a significant source of revenue for network carriers, despite representing only 8% of total international traffic.

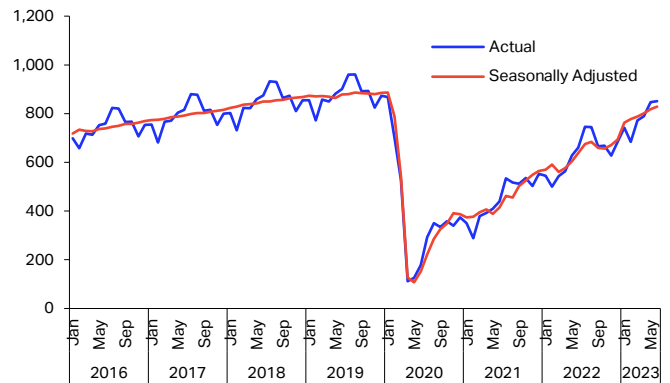


**Chart 14: Industry monthly RPKs in billions**



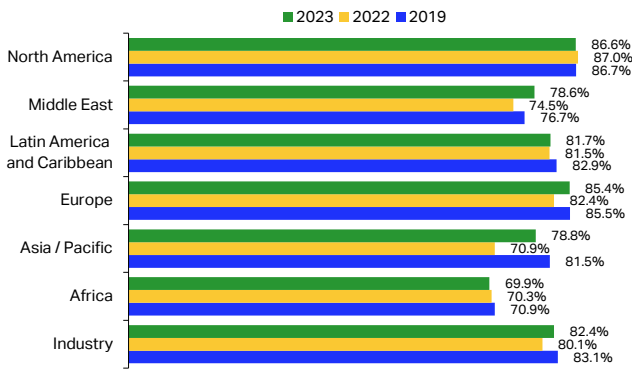
Source: IATA Sustainability and Economics, IATA Monthly Statistics

**Chart 15: Industry monthly ASKs in billions**



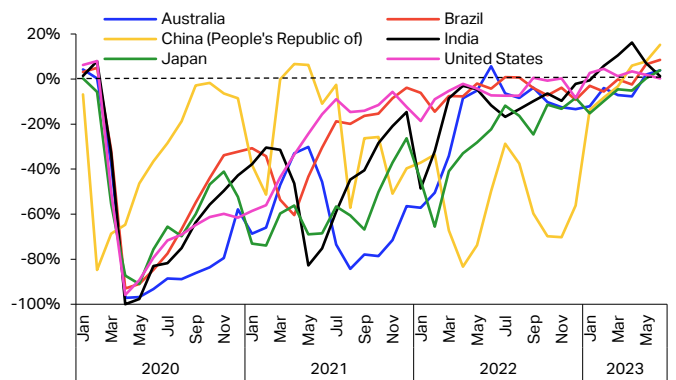
Sources: IATA Sustainability and Economics, IATA Monthly Statistics

**Chart 16: Passenger load factor (PLF), % share of ASKs (Q2)**



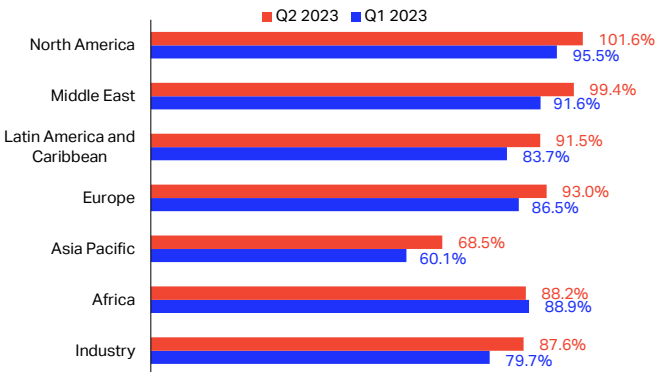
Sources: IATA Sustainability and Economics, IATA Monthly Statistics

**Chart 17: Domestic RPKs by country market, % change versus the same month in 2019**



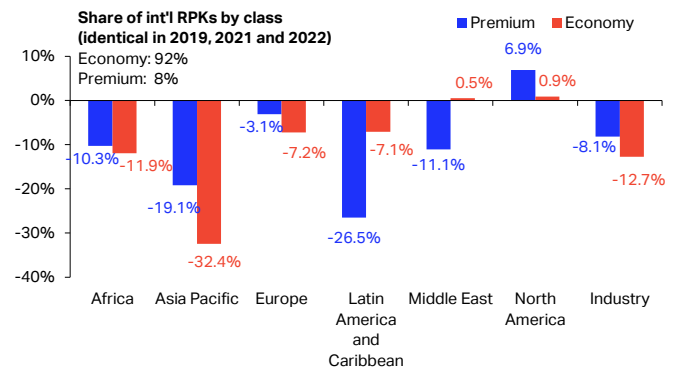
Sources: IATA Sustainability and Economics, IATA Monthly Statistics

**Chart 18: International RPKs by airline region of registration, % share of the same period in 2019**



Source: IATA Sustainability and Economics, IATA Monthly Statistics

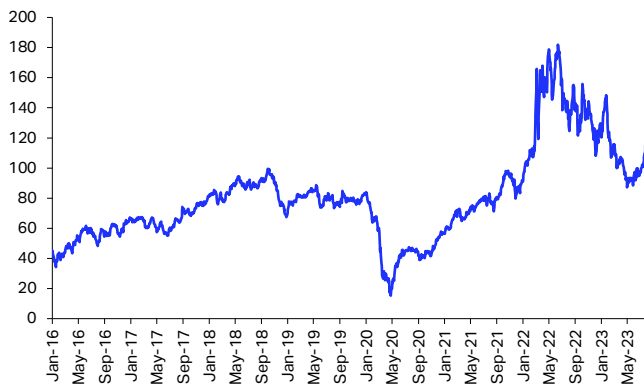
**Chart 19: International RPKs by cabin class, % change vs the same period in 2019 (Q2)**



Source: IATA Sustainability and Economics, IATA Monthly Statistics

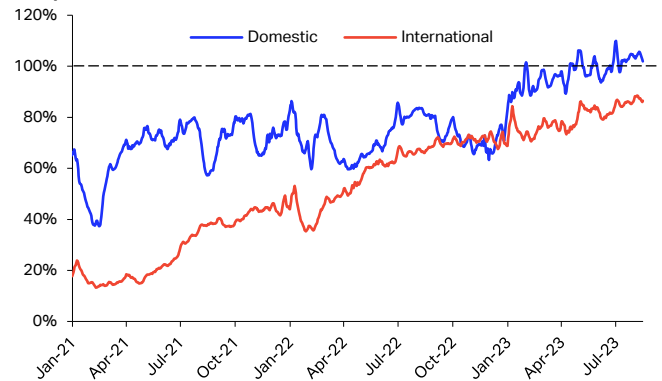


**Chart 20: Jet fuel price, USD/bbl**



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

**Chart 21: Passenger ticket sales, 7-day moving average, % share of the same period in 2019**

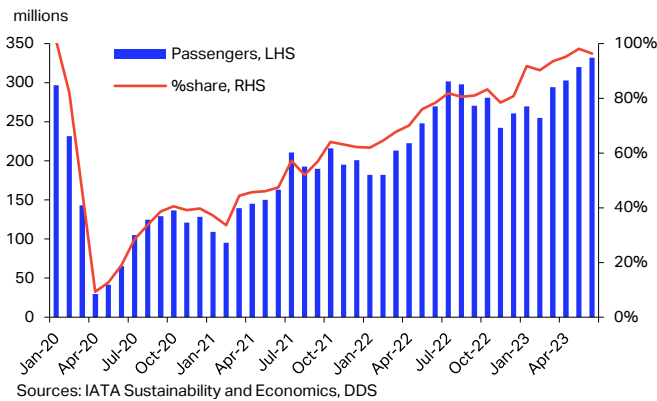


Sources: IATA Sustainability and Economics, DDS

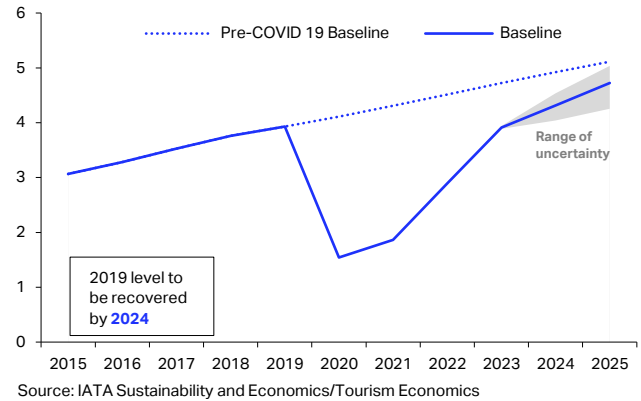
- In the second quarter of 2023, jet fuel prices across the regions continued to decrease while remaining elevated on a historical basis. This created an improved but still challenging environment for airlines. Higher airline costs largely explained the increase in air fares the industry saw since the start of this year (Chart 20). Still, at a global level, the increase in air fares aligns with the rise in inflation. Despite these developments, demand for air travel held strong in Q2 2023, pushing the air traffic recovery further in all regions and market segments.
- After having outpaced international ticket sales during the recovery, domestic sales followed a stable upward trend, exceeding pre-pandemic levels in Q2 2023. Demand for international travel has also shown similar positive signs over the past few months. Total forward bookings continue to indicate that demand remains resilient despite the current economic challenges faced by households, and the elevated fares due to high jet fuel prices and a generally high rate of inflation (Chart 21). Consequently, Q2 2023 saw more growth in Origin – Destination (O-D) passenger traffic, reaching 96.6% of Q2 2019 levels, a 21.7 ppt increase in recovery levels compared to Q2 2022. Stable trends in total forward bookings suggest that O-D passenger numbers will see continued growth over the months to come, supporting our current forecast (Chart 22).
- The near-term outlook for the global industry remains largely unchanged, with total passenger numbers expected to return to 2019 levels in early 2024 and double by 2040. Macroeconomic headwinds still skew the range of uncertainty around our short-term forecast to the downside (Chart 23). While global consumer price inflation likely peaked in late 2022, the higher price level continues to affect household disposable income, an impact that has so far been mitigated by historically tight labor markets. If the global economy slows over the coming quarters, unemployment rates might rise again and put downward pressure on the demand for air travel. On the supply side, airlines continue to face higher costs globally as well as capacity constraints throughout the whole air transport value chain.
- On the other hand, high passenger demand in all regions has propelled traffic towards full recovery. The past upward revisions we have made to our regional and global forecasts are therefore maintained, with most regions expected to return to year-on-year pre-pandemic levels in 2023 and Asia Pacific anticipated to recover in 2024 as international connections to the region are catching up with the rest of the world. We expect the total industry to reach the full-year 2019 level in 2024. This will nevertheless leave the industry below our pre-pandemic forecast (Chart 24).



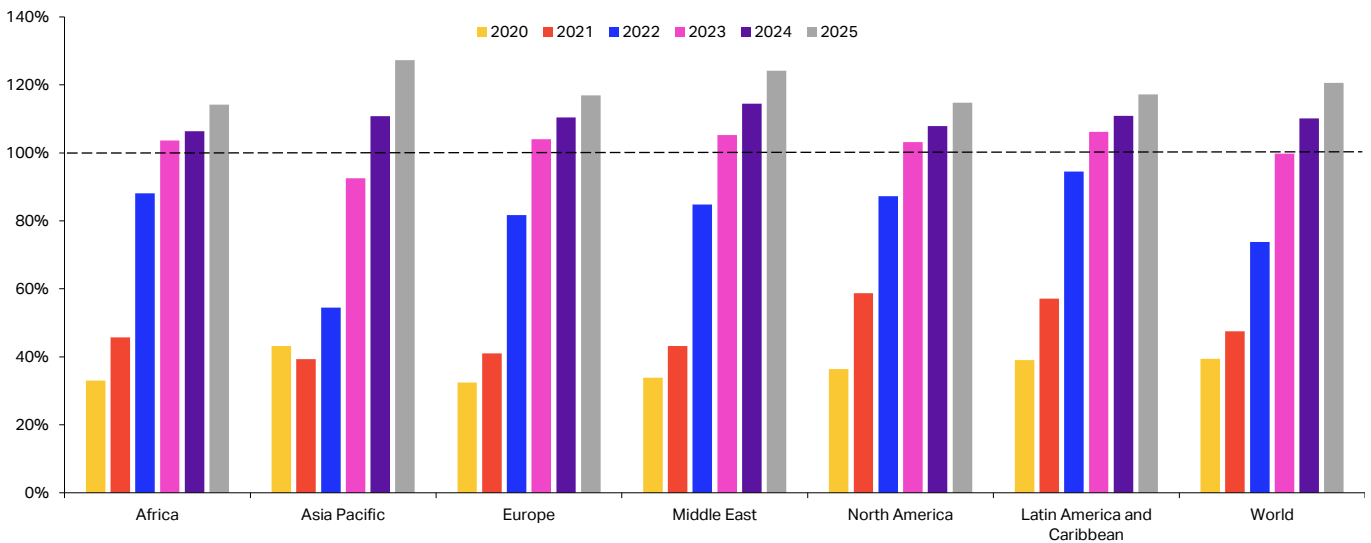
**Chart 22: Passenger traffic (O-D) and % share of 2019 levels**



**Chart 23: Global passengers in billions**



**Chart 24: Passenger traffic forecast by region, % share of 2019 levels**



**Estimated year of recovery to 2019 passenger traffic levels**

Africa	Asia Pacific	Europe	Middle East	North America	Latin America and Caribbean	World
2023	2024	2023	2023	2023	2023	2024

## Global Air Connectivity

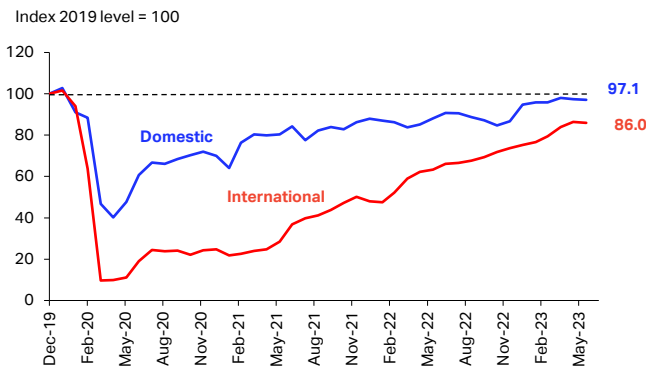
- Increased connectivity drives improved economic outcomes for all countries and communities. Air transport on one form of connectivity, and it is vital for the modern economy. It provides the city-pair connections that serve as virtual bridges supporting the flows of goods and people between markets. As the only rapid global transportation network, air transport facilitates links between businesses, governments, and people – enabling world trade, investment, tourism and travel, among other key economic activities. The ongoing recovery in air traffic volumes is reflected in network growth and increases in connectivity. As of June 2023, IATA’s Global Air Connectivity Index, which measures connectivity as scheduled passenger capacity weighed by the relative economic size of destinations served, had recovered to 86% of its pre-pandemic level for international connectivity, up 22.7 percentage points over the past year. Domestic connectivity is currently at 97.1% of its 2019 equivalent level, having increased by a more modest 9 percentage points over the last 12 months (Chart 25).
- Digging deeper, the number of domestic airport pairs served has returned to pre-pandemic levels and currently exceeds the 2019 levels by 0.8%. Similarly, the number of international airport pairs is also



increasing, but, at 91.3%, is yet to fully recover its pre-covid level (Chart 26). Similarly, the recovery in flight frequency for international routes (87.3%) lags that of domestic (92.8%).

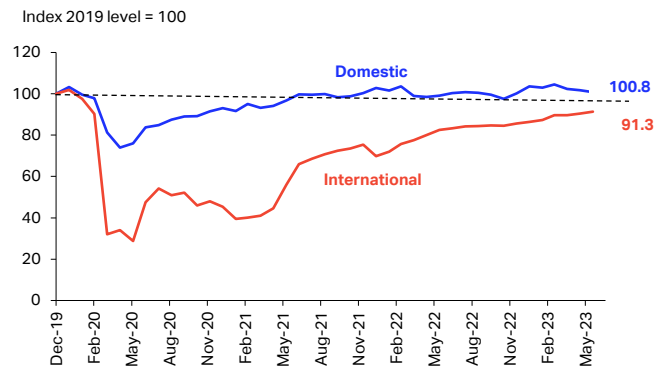
- The recovery in connectivity is broad-based across regions, with Africa being the strongest performer currently; international air connectivity in Africa has exceeded its 2019 level and was at 102.3% in June 2023. Latin America & the Caribbean and the Middle East regions closely follow with 101.8% and 100% of their respective pre-covid levels, respectively, while for both North America and Europe, international connectivity is still at 90% and 89% of the 2019 level, in that order. Asia Pacific continues to lag the recovery in the other regions, at a modest 73% of 2019 levels in June (Chart 27). However, it is worth noting that Asia Pacific has seen a strong increase of 42 pts in international air connectivity over the past year. With important regional markets reopening borders and lifting travel restrictions only relatively recently (over the past six months, China international connectivity increased by 37 pts from 11% to 47%), we anticipate a sizeable improvement again this year, closing the gap further with the performance of other regions.

**Chart 25: IATA Global Air Connectivity Index, Jan 2020-Jun 2023**



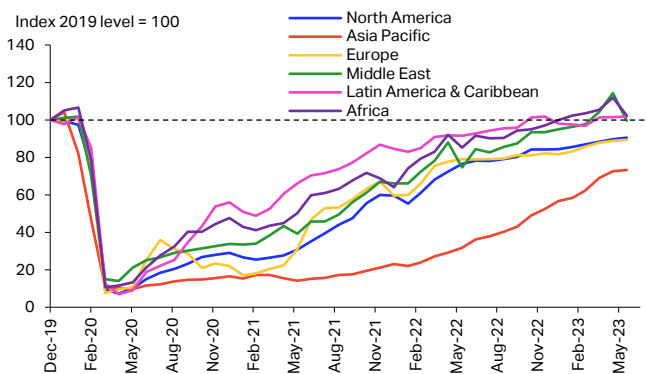
Source: IATA Connectivity Index using data from OAG

**Chart 26: Global airport pairs, Jan 2020-Jun 2023**



Source: IATA Connectivity Index using data from OAG

**Chart 27: Recovery in international connectivity by region through Jun 2023**



Source: IATA Connectivity Index using data from OAG



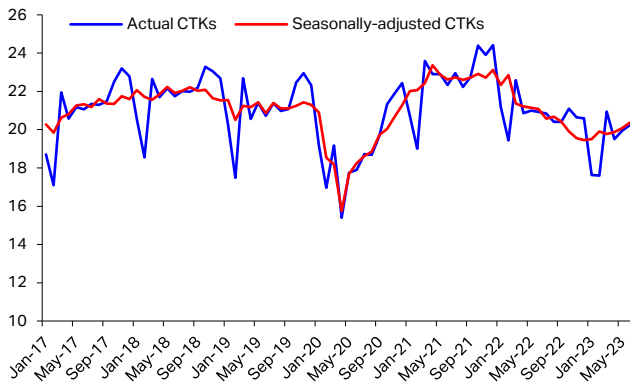
## Cargo Traffic

- Annual growth in world merchandise trade is likely to slow to 1.7% in 2023, from 2.7% in 2022 (Chart 9). This slowdown has already manifested itself in the year-on-year contractions seen in global goods trade over the Q2 2023 period. Nevertheless, demand for air cargo fell by less in Q2 2023, measured by cargo tonne-kilometers (CTKs), despite being 3.4% below the level seen in June 2022 (Chart 28). CTKs year-to-date (YTD) ending June reached 115.8 billion and the gap with the 2022 YTD CTK level narrowed from -11.2% at the end of Q1 to -8.1% at the end of Q2 (Chart 29).
- Air cargo capacity, measured by available cargo tonne-kilometers (ACTKs), exceeded pre-pandemic levels in Q2 2023 for the first time in three years (Chart 30). The strong annual expansion of ACTKs over the second quarter was mainly driven by the restoration of passenger belly-hold capacity (Chart 31). In response to the weak air cargo demand, airlines added less dedicated cargo capacity in June. However, at 264.7 billion, YTD ACTKs through the end of Q2 have already surpassed their 2022 levels for the same period by 9.9% (Chart 32).
- Total international capacity (dedicated freighters and belly capacity) continued to trend towards their pre-pandemic 50-50 balanced shares over Q2 2023. Also, notably, there were no passenger freighters (also known as preighters) scheduled in Q2 globally for the first time in two and a half years, after these having played an essential role during the pandemic (Chart 33).
- Airlines in North America experienced a challenging start to Q2 2023, with their international CTKs declining by 12.4% YoY in April. However, by the end of the second quarter in June, the annual contraction in international CTKs for this region's carriers narrowed to 3.3%. Similarly, airlines in Europe saw an annual decline in their international CTKs of 7.9% in April but closed the second quarter on an improved 3.0% contraction. The traffic fluctuations seen by the airlines in these two regions were largely driven by the ups and downs of CTKs on the Europe-North America trade lane in the second quarter. In comparison, the performance of Asia Pacific airlines regressed in Q2, with traffic contractions deepening from -3.5% YoY in April to -7.2% in June, reflecting the softening demand for international cargo in the within Asia market (Chart 34).
- In Q2 2023, Latin American airlines joined airlines in North America and Africa in surpassing January 2020 international CTKs (seasonally adjusted), which marked the last month of pre-covid air cargo traffic before the impact materialized globally. Airlines in the Middle East also outperformed their January 2020 international CTK levels in June (Chart 35). In contrast, international CTKs for airlines in Europe remained 9% below the January 2020 level in June. Airlines in Asia Pacific performed slightly better but still registered international CTKs 5% below the January 2020 level. At the industry level, international CTKs in June were 2% lower than in January 2020.



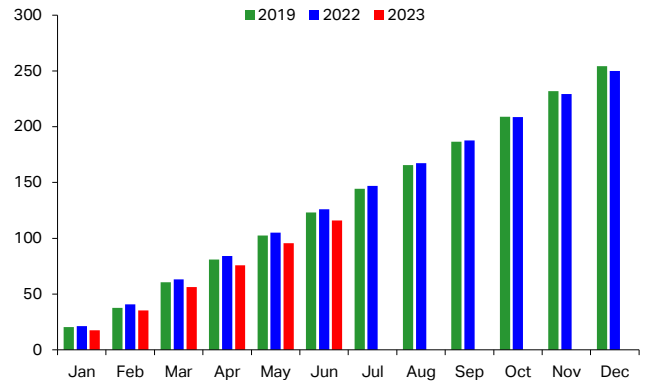


**Chart 28: Industry monthly CTKs in billions**



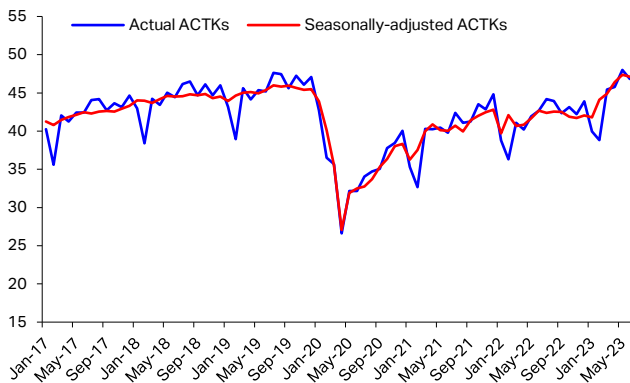
Sources: IATA Sustainability and Economics, IATA Monthly Statistics

**Chart 29: Year-to-date monthly industry CTKs in billions**



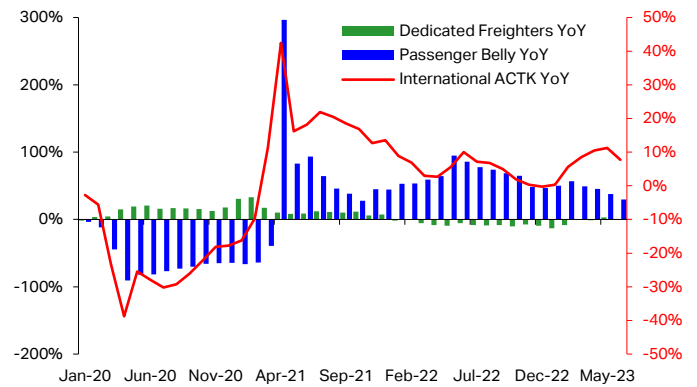
Sources: IATA Sustainability and Economics, IATA Monthly Statistics

**Chart 30: Industry monthly ACTKs in billions**



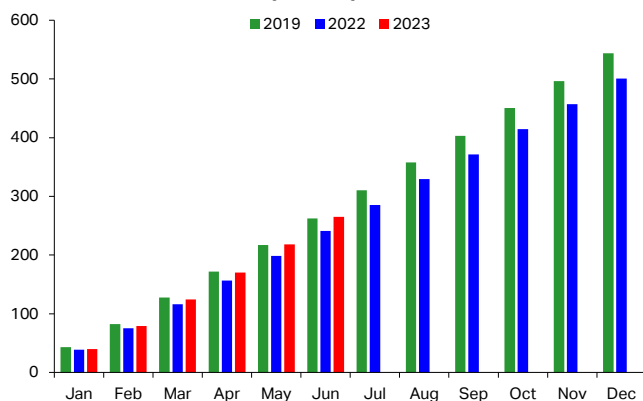
Sources: IATA Sustainability and Economics, IATA Monthly Statistics

**Chart 31: Growth of international ACTKs by type**



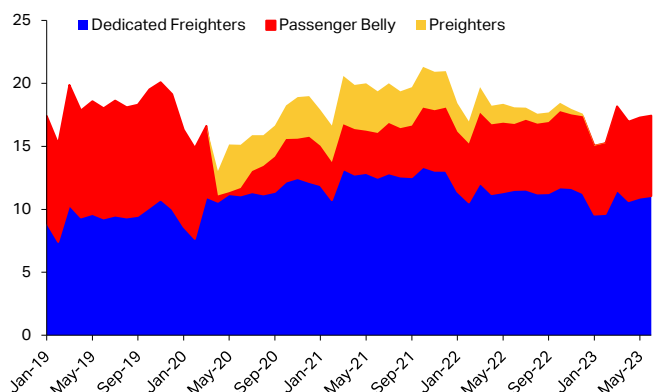
Sources: IATA Sustainability and Economics, IATA Monthly Statistics

**Chart 32: Year-to-date monthly industry ACTKs in billions**



Sources: IATA Sustainability and Economics, IATA Monthly Statistics

**Chart 33: International CTKs by type in millions**

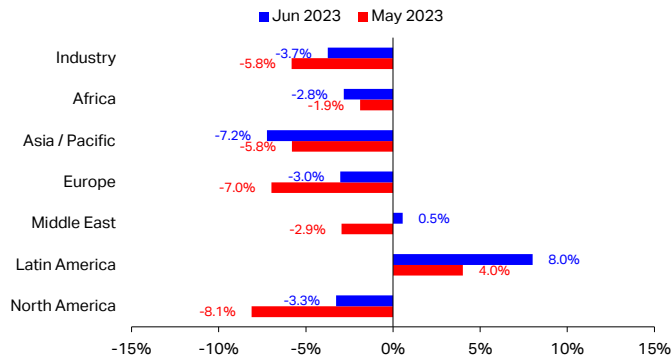


Sources: IATA Sustainability and Economics, IATA Monthly Statistics

- Industry air cargo load factors (CLF) in Q2 2023 declined compared to the previous quarter, reflecting the strong growth in cargo capacity coupled with falling demand (Chart 36). Among the major trade lanes, the Asia Pacific-Europe and the North America-Asia Pacific markets saw CLFs well above the industry average load factors (48.6%), standing at 66.9% and 64.2% in June, respectively. In comparison, the CLFs on the within-Asia trade lane continued to decline from the Q1 levels, falling to 50.4% in June, albeit still slightly higher than the industry CLFs. The Europe-North America market registered the lowest CLFs among the top trade lanes, which led to the significant annual contractions of international CTKs reported by European and North American airlines.
- The manufacturing Purchasing Managers' Index (PMI) has historically served as a leading indicator of air cargo demand (Chart 37). In June, both the manufacturing output PMI (49.2) and the new export orders PMI (47.1) were below the 50-mark, indicating a deterioration in global manufacturing production and exports. Both components of the manufacturing PMIs have seen sustained annual contractions over Q2 2023, except for the 0.2% growth in new export orders in April.
- Looking at the new export orders PMIs for major economies, China was the only economy that stood slightly above the 50-mark throughout Q2 2023. In comparison, the new export orders PMI in the US dropped from 47.0 in April to 44.9 in June, Europe's declined from 46.0 in April to 42.6 in June, and Japan's also decreased from 47.3 in April to 45.4 in June (Chart 38). These trends indicate China's critical role in delivering most of the world's economic growth impulse, despite the country's slowing momentum in this business cycle.
- The manufacturing output PMIs of the world's major economies in the second quarter mirror the new export orders PMIs. China was the only economy that maintained PMIs above the 50-mark throughout the quarter, despite a decline in June (51.0) compared with May (53.8). The US saw expansions in its manufacturing output in the first two months of Q2, with PMIs of 52.4 in April and 51.0 in May, before the PMI declined to 46.9 in June. Europe's PMI maintained a downward trend over Q2, slipping from 48.7 in April to 45.4 in June. Japan also saw a deterioration in Q2, with its output PMI standing at 48.1 in June (Chart 39).
- The inventory-to-sales ratio is historically strongly correlated with industry CTK growth rates and can provide more perspective on the soft demand for air cargo (Chart 40). In Q2 2023, the annual growth in the inventory-to-sales ratio (inverted in the chart) saw a sustained slowdown, from 3.2% in April to 0.9% in June. The inventory build-up in the second quarter is likely a consequence of weaker demand. Unlike the lockdown period, air cargo capacity continued to expand rapidly in the second quarter, enabling sufficient and speedy supply.
- With global goods trade contracting YoY over Q2 2023, air cargo demand has followed suit (Chart 41). Notably, the gap between the growth in global goods trade and air cargo demand narrowed in Q2 to the lowest level since January 2022. However, this gap indicates that air cargo is still more affected by the slowdown in global trade than container cargo.
- Our latest Business Confidence Survey of airline Heads of Cargo reflects the current challenging situation in the air cargo business. 56% of respondents stated that there was a deterioration in air cargo operations over Q2, while only 16% claimed an improvement. As for future expectations, only 24% of respondents expect an improvement in cargo operations over the next 12 months, while 52% would expect no significant change over this period (Chart 42). The weighted score of business confidence on cargo operations for the next twelve months is 50.0, and the score on cargo yields stands at 40.0 (Chart 43).



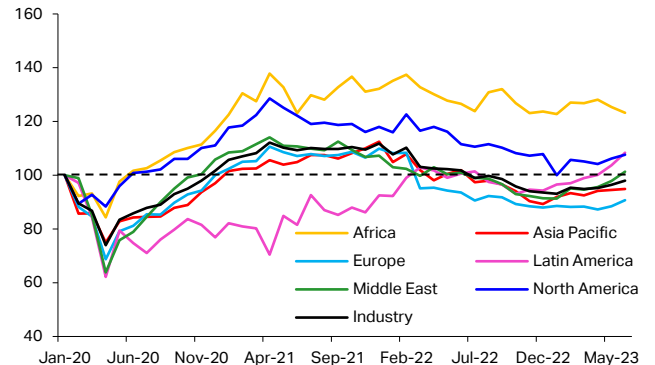
**Chart 34: International CTK growth by airline region of registration, % change YoY**



Sources: IATA Sustainability and Economics, IATA Monthly Statistics

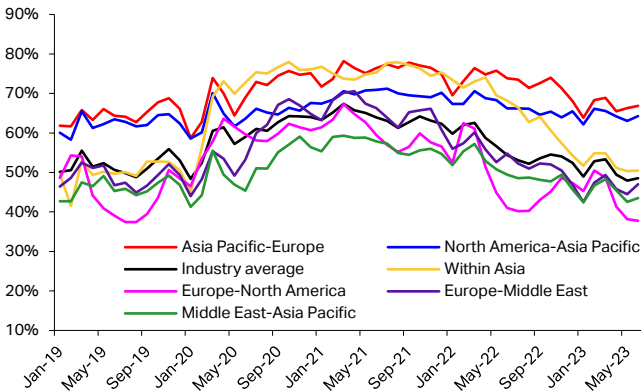
**Chart 35: Seasonally adjusted monthly international CTKs**

Indexed, Jan 2020 level = 100



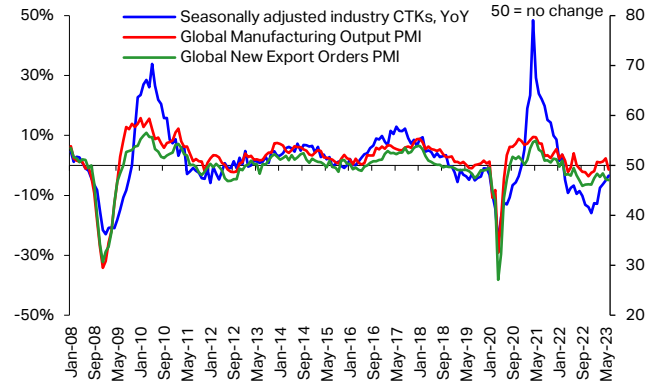
Sources: IATA Sustainability and Economics, IATA Monthly Statistics

**Chart 36: Cargo load factors in major route areas, % share of ACTKs**



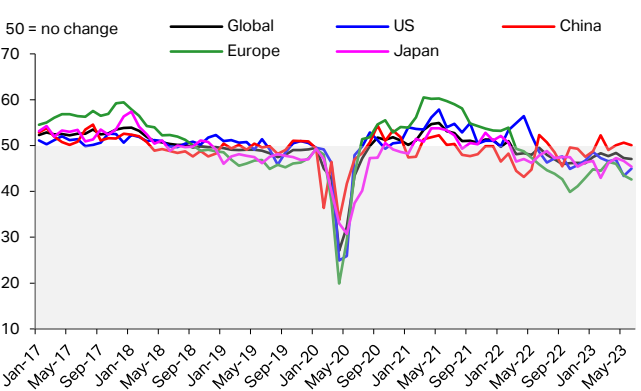
Sources: IATA Sustainability and Economics, IATA Monthly Statistics

**Chart 37: Global manufacturing PMIs and industry CTK growth**



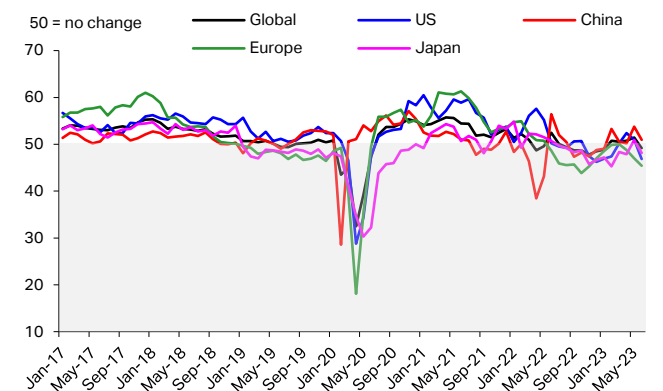
Sources: IATA Sustainability and Economics, IATA Monthly Statistics, S&P Global

**Chart 38: PMI new export orders in major economies**



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

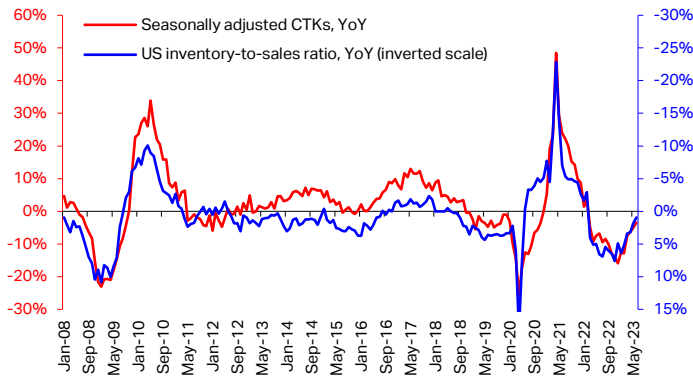
**Chart 39: PMI manufacturing output in major economies**



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

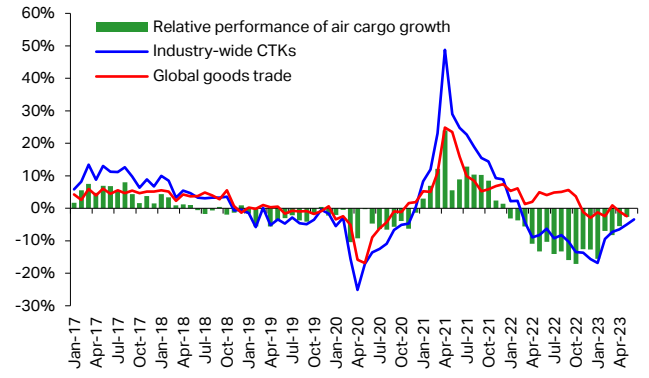


**Chart 40: Growth in inventory-to-sales ratio and industry CTKs**



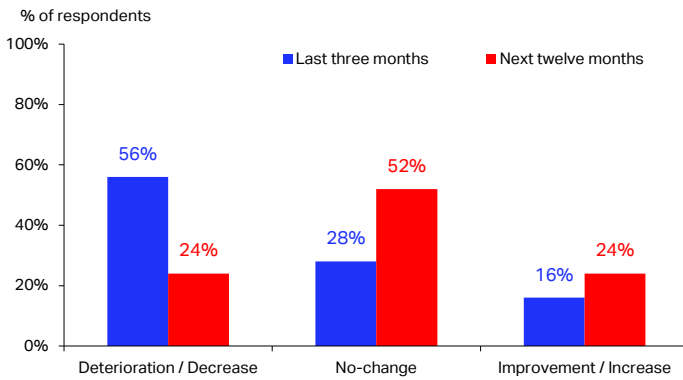
Source: IATA Sustainability and Economics, IATA monthly statistics, Macrobond

**Chart 41: Growth in global goods trade and industry CTKs**



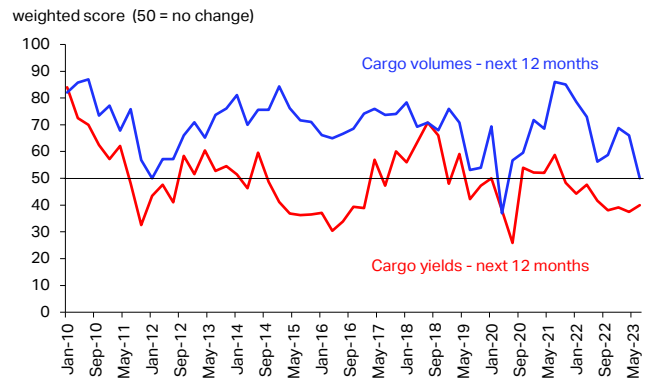
Sources: IATA Sustainability and Economics, IATA Monthly Statistics, Macrobond

**Chart 42: Business Survey Results: How did cargo operations in the last three months compare with the same period last year and how do you expect them to change over the next twelve months?**



Sources: IATA Business Confidence Survey (July 2023)

**Chart 43: Business Survey Results: How do you expect air cargo operations and cargo fares/output prices to change over the next 12 months? (Jan 2010- Jul 2023)**

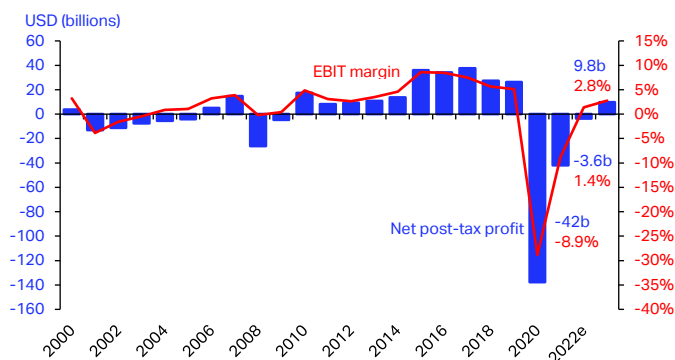


Sources: IATA Business Confidence Survey (July 2023)

## IV. Airline Financial Performance

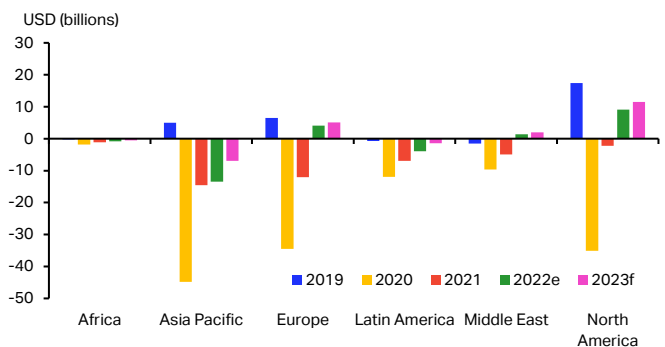
- After posting a historic loss of around USD 140 billion in 2020, the industry is expected to return to profitability in 2023, underpinned by firm consumer demand and a complete re-opening of markets in the Asia Pacific region (Chart 44). Airline financial performance continues to improve across all regions, reaffirming the resilience of the industry following the disruption resulting from the covid-19 pandemic. Even so, the recovery profiles vary from region to region, with not all regions expecting to breakeven this year.
- At the global level, the industry is expected to generate a net profit of USD 9.8 billion this year, with a modest 1.2% net profit margin (Chart 44). This result translates to an expected slim profit of USD 2.25 per passenger. While the financial recovery is impressive, there is nevertheless room to improve the airline industry's financial robustness, via stronger balance sheets and more secure profit margins.
- From a regional perspective, financial performance continues to be led by the North American carriers, which are expected to post a net profit in excess of USD 10 billion in 2023. Europe and Middle East airlines are also likely to be profitable in 2023, with other regions continuing to show an improved financial performance, moving towards a return to profitability (Chart 45).
- The generally positive industry financial outlook is supported by the latest findings of the IATA quarterly Business Confidence survey. Almost three quarters (73%) of respondents indicated that they expect profitability to improve further over the course of the next twelve months.

**Chart 44: Airline industry net profits and EBIT margin**



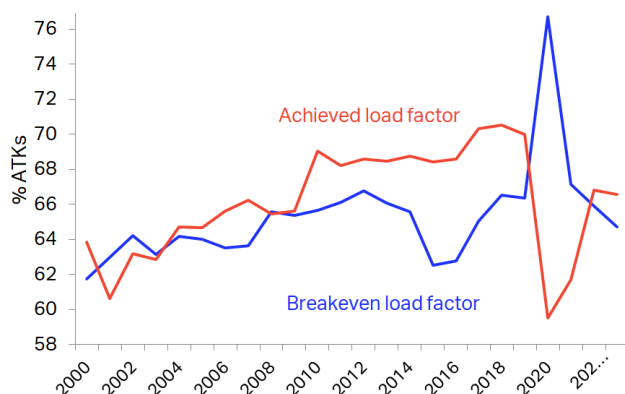
Source: IATA Sustainability and Economics

**Chart 45: Regional airlines profitability (USD bn)**



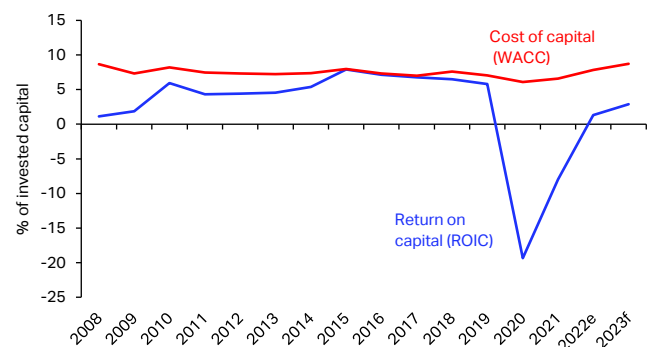
Source: IATA Sustainability and Economics

**Chart 46: Breakeven and achieved cargo + passenger load factor (%ATKs)**



Source: IATA Sustainability and Economics

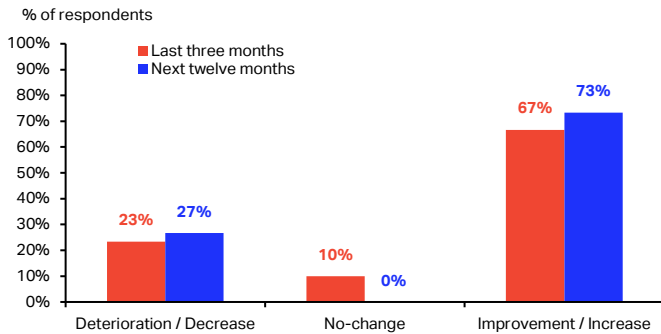
**Chart 47: Return on capital invested airlines**



Source: IATA Sustainability and Economics

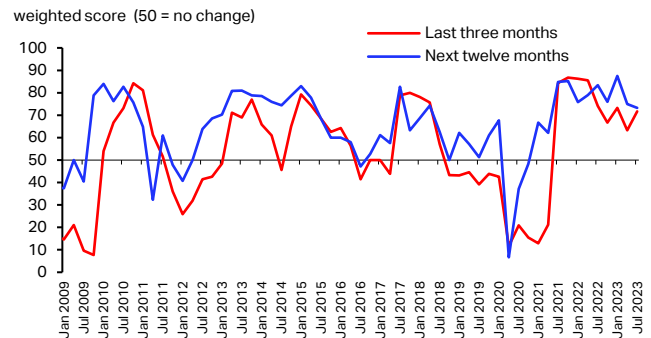


**Chart 48: Business Survey Results: How does your profitability performance in the last 3 and the next 12 months compare with the same period last year? (% of respondents)**



Source: IATA Business Confidence Survey (July 2023)

**Chart 49: Business Survey Results (Weighted score): How does your profitability performance in the last 3 and the next 12 months compare with the same period last year? (weighted score)**



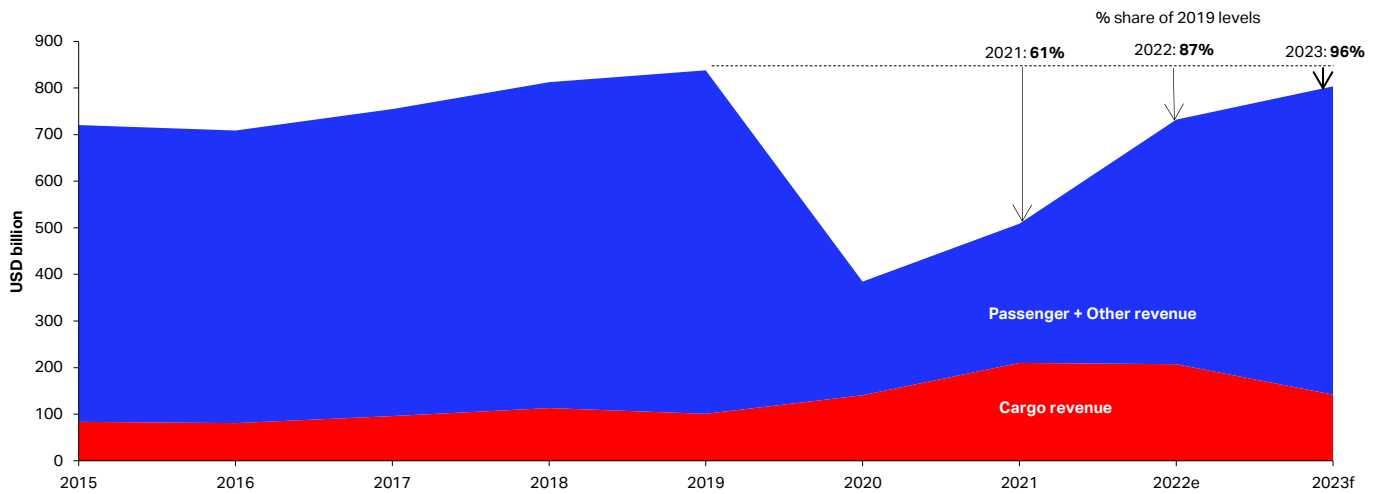
Source: IATA Business Confidence Survey (July 2023)

## Revenue

- For 2023 overall, total airline revenue is expected to recover to around 96% of the pre-covid (2019) level, growing at a brisk 9.7% rate. This builds on the robust 44% and 32% increase seen in the past two years.
- Air passenger revenue is anticipated to increase by around 25% in 2023, following the very strong 80% rise in 2022. This reflects the ongoing recovery in passenger volumes (RPKs), offset by a modest drop in passenger yields, following the strong gain in that metric last year. As a result, passenger revenue is expected to increase to USD 546 billion, which is around 90% of its 2019 level (Chart 50).
- At the same time, cargo revenue will likely ease further from its covid-related high to USD 140 billion, reflecting a decline in both CTK volumes and a significant unwinding of cargo rates. Even so, cargo revenue is likely to still be around 40% higher than in 2019 and will account for around 20% of total airline revenue. While this revenue share is well down on the 40% achieved in 2021 (reflecting both the increase in cargo revenue and sharp decline in passenger revenue that year), it remains well above the 10-12% revenue share of the pre-covid period (Chart 50).
- IATA's latest Business Confidence survey results indicate that around 50% of respondents have increased airfares during the second quarter. However, for the year ahead, the outlook is more mixed; a more modest 36% expect fares will be higher in 12 months' time than they are now, while 24% expect fares will decline (Chart 51, Chart 52). On the cargo side, 72% of respondents indicated that cargo yields have fallen in the second quarter, with the remainder indicating no change. No respondent expected increasing yields. For the year ahead, the outlook is somewhat more upbeat; around half of respondents expect no change in ticket prices, while 36% expect to see a further decline (Chart 53, Chart 54).

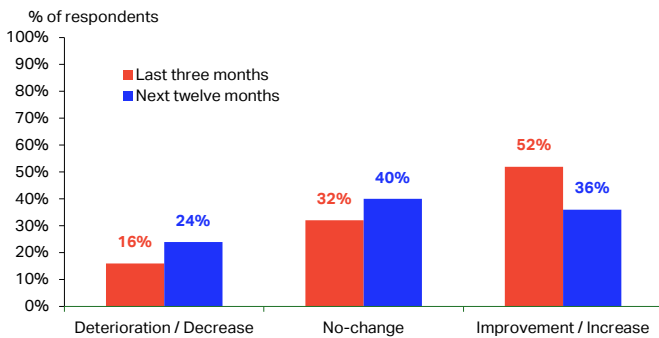


Chart 50: Global airlines revenue, USD billion



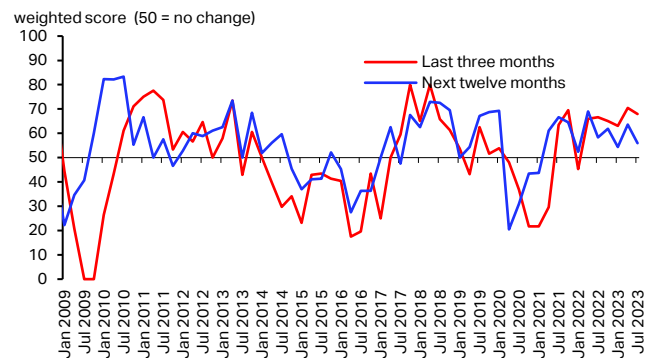
Source: IATA Sustainability and Economics

Chart 51: Business Survey Results: How do you expect your fares/output prices to change over the next 12 months? (Passenger operations), % of respondents



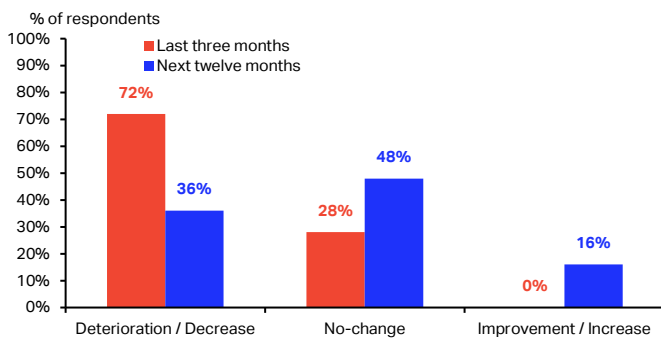
Source: IATA Business Confidence Survey, July 2023

Chart 52: Business Survey Results: How do you expect your fares/output prices to change over the next 12 months? (Passenger operations), weighted score



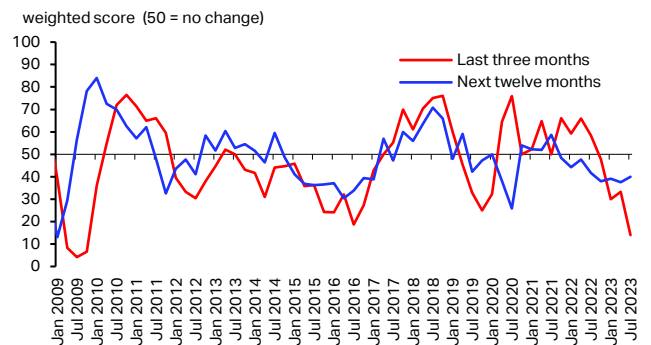
Source: IATA Business Confidence Survey (July 2023)

Chart 53: Business Survey Results: How do you expect your fares/output prices to change over the next 12 months? (Cargo operations), % of respondents



Source: IATA Business Confidence Survey, July 2023

Chart 54: Business Survey Results: How do you expect your fares/output prices to change over the next 12 months? (Cargo operations), weighted score



Source: IATA Business Confidence Survey, July 2023

## Expenses

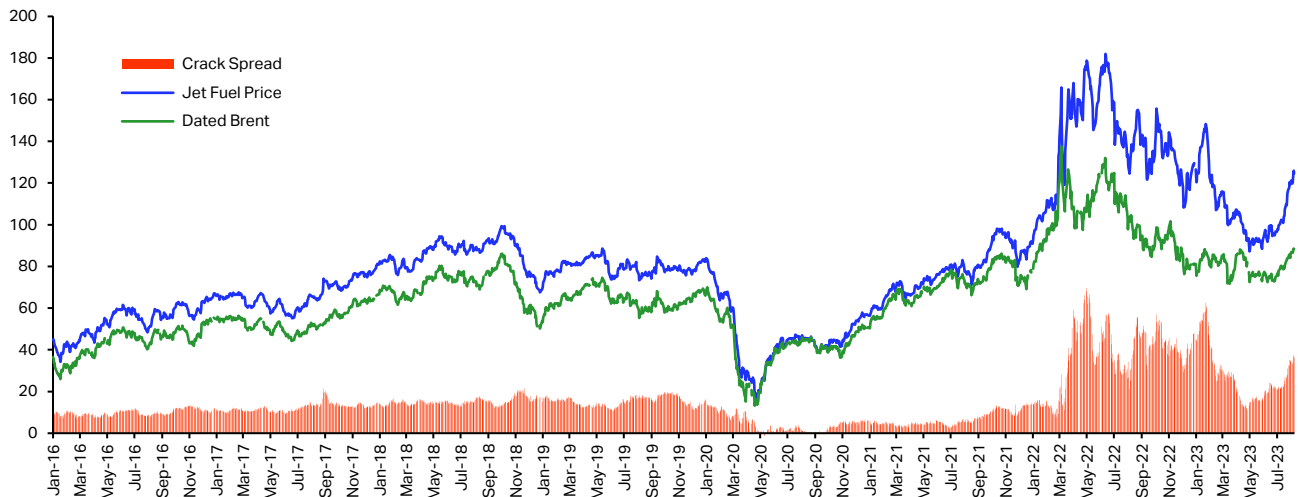
- Airline costs rose significantly in 2022, driven in large part by the increase in oil and jet fuel prices. The Brent crude oil price spiked sharply following the Russian invasion of Ukraine, rising by 40% to average just over USD 100 per barrel for the year overall. At the same time, the jet fuel price increased by around



75% as the crack spread widened to historically high levels. The fuel cost for the airlines rose to around 30% of total operating costs, well above the typical level (Chart 55).

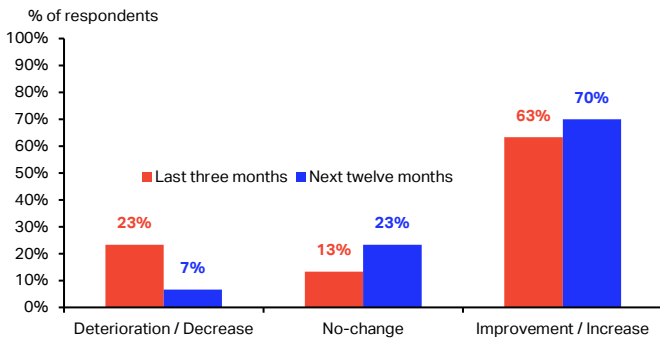
- Oil and jet fuel prices have retreated from those high levels in the period since, and the crack spread has narrowed. This will help to alleviate some of the cost pressure faced by airlines over 2023. However, others remain, including those related to labor, infrastructure, and other inflation-linked inputs. Labor and skill shortages persist in some markets, given the low unemployment rates observed in many countries. In some cases, particularly where the shortages remain acute, this is placing upwards pressure on wages and salaries. Such shortages and wage pressures are not limited to airlines or the aviation value chain in these markets.
- Input costs are expected to remain a challenge for airlines going forward. Again, data taken from our latest Business Confidence survey indicates that almost 2/3 of respondents have seen input costs increase over the second quarter. 70% expect further price rises over the year ahead and with only 7% expecting input costs to decline over this period, the weighted average score has been maintained at an historically high level. In light of this outlook, ongoing cost-vigilance will be a priority for airline management over the period ahead (Chart 56, Chart 57).

Chart 55: Jet fuel price, crude oil price, and crack spread, USD/bbl



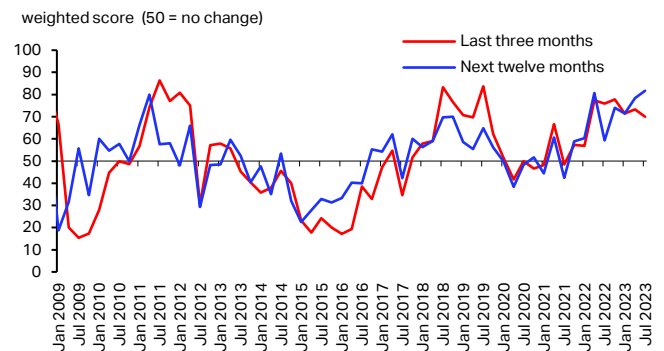
Source: IATA Sustainability and Economics, S&P Global Commodity Insights

Chart 56: Business Survey Results: How does your unit costs in the last three months compare with the same period last year? (% of respondents)



Source: IATA Business Confidence Survey, July 2023

Chart 57: Business Survey Results: How does your unit costs in the last three months and the next twelve months compare with the same period last year? (weighted score)



Source: IATA Business Confidence Survey, July 2023



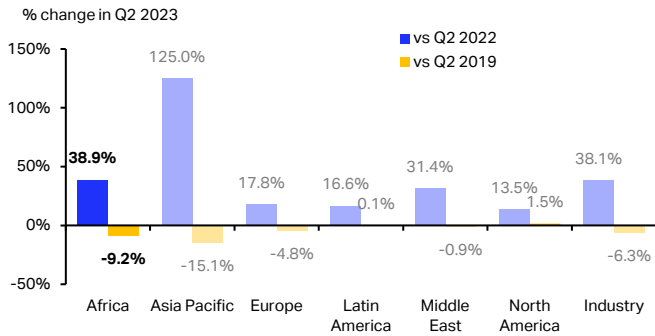


## V. Regional Outlook

### Africa

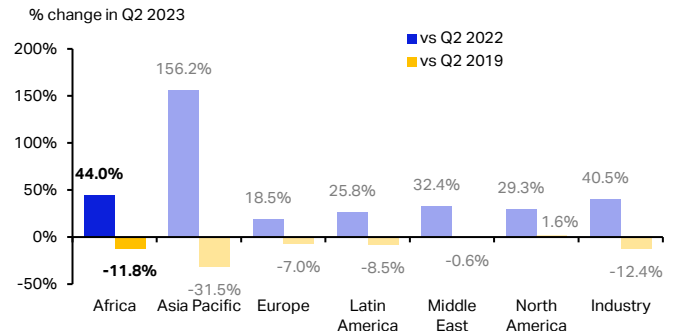
- In the second quarter of 2023, and for the second quarter in a row, African carriers experienced the second-highest annual growth in passenger traffic (RPKs) across the regions, behind Asia Pacific. African carriers outperformed the average industry-wide growth in both total and international passenger traffic. Despite the continued positive performance that quarter, the region still confronts economic challenges that severely limit the affordability of air travel, in addition to a range of infrastructure issues that curb capacity and hinder the development of consistent air service.
- Total RPKs increased 38.9% compared to the same quarter in 2022, 0.8 ppts faster than the industry-wide growth. Although the region exhibited this strong traffic expansion, it has not fully recovered its pre-pandemic RPKs, with Q2 2023 RPKs standing 9.2% below the same quarter in 2019 (Chart 58).
- International passenger traffic performed by African carriers remained below its pre-pandemic level by 11.8%. However, it outperformed its 2022 level by a robust 44%, 4.5 ppts higher than the industry average (Chart 59). These positive developments were mainly driven by the resilient recovery in international traffic on the Africa-Europe and Africa-Middle East route areas. Passenger flows between Africa and Asia have also seen a significant ramp-up, closing the gap caused by past travel restrictions.
- Cargo traffic for African carriers also performed better than the industry average in the second quarter of 2023. CTKs for the region were 5.5% higher than Q2 2019 levels and only 1.8% below Q2 2022 levels, a result mainly driven by the strong performance of the Asia-Africa trade lane in April and May (Chart 60).
- Ticket sales in Africa maintained a positive trend in Q2 2023 and surpassed the global average levels from mid-May to early June (Chart 61). In addition, African airlines are increasing their number of new aircraft units, which might be a sign of an anticipated full recovery by the end of this year (Chart 63). Most deliveries, however, continue to be received by a few airlines in the region.
- The majority of the region's major markets outperformed their 2019 levels in terms of origin-destination (O-D) air passenger traffic in Q2 2023. During this quarter, Nigeria stood out with 52% more passengers compared to the pre-pandemic level, followed by Egypt and Ethiopia and Morocco, which recorded 33%, 31% and 13% growth over the same period, respectively. Algeria and Tunisia experienced lower performances with 3% and 5% more traffic compared to the same quarter in 2019. Only South Africa remained below its pre-pandemic level, having 3% fewer passengers than in the second quarter of 2019. This lagging performance reflects the ongoing economic challenges in the country (Chart 62).

**Chart 58: Growth in RPKs by airline region of registration, Africa**



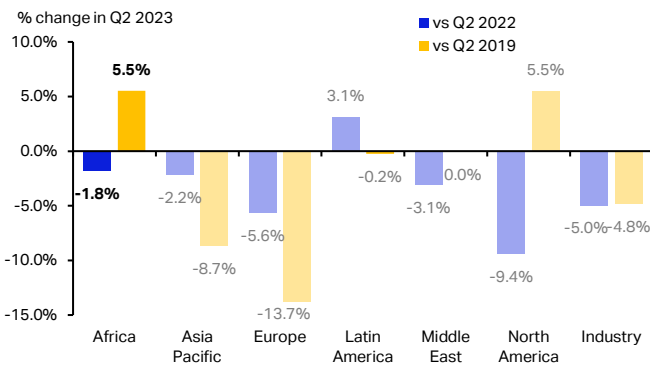
Source: IATA Sustainability and Economics, Monthly Statistics

**Chart 59: Growth in international RPKs by airline region of registration, Africa**



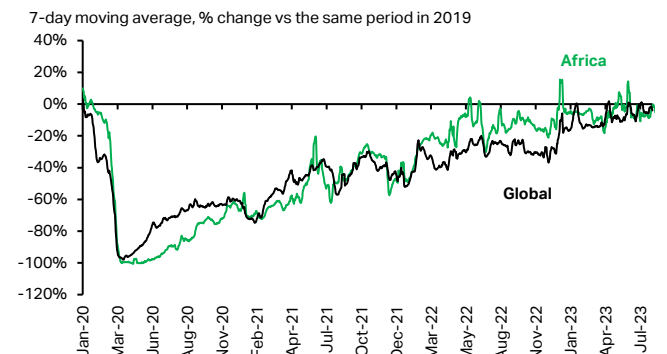
Source: IATA Sustainability and Economics, Monthly Statistics

**Chart 60: Growth in CTKs by airline region of registration, Africa**



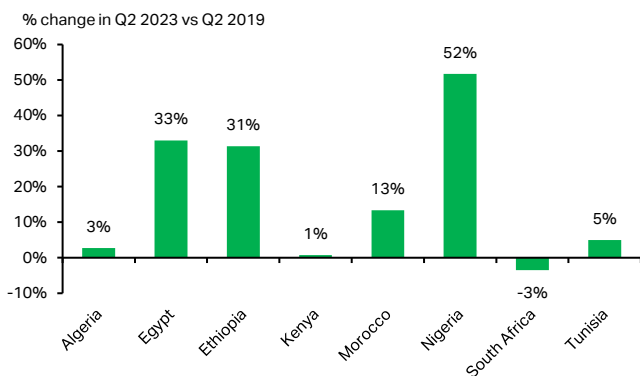
Source: IATA Sustainability and Economics, Monthly Statistics

**Chart 61: Ticket sales by region (7-day moving average), Africa**



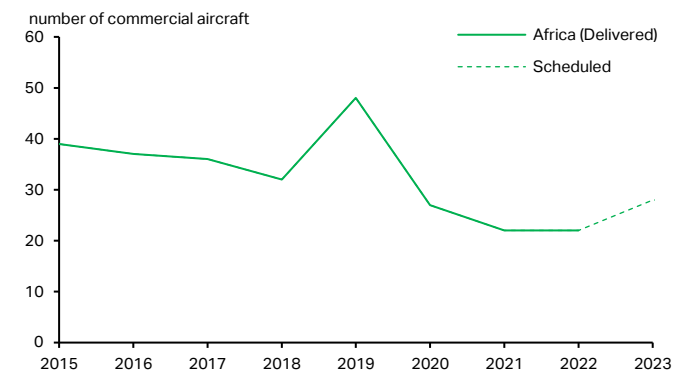
Source: IATA Sustainability and Economics, DDS

**Chart 62: Passenger traffic (O-D) growth by country in Q2 2023, Africa**



Source: IATA Sustainability and Economics, DDS

**Chart 63: Aircraft deliveries in 2015-2023 (scheduled), Africa**



Source: IATA Sustainability and Economics, Cirium

	World share <sup>1</sup>	Q2 2023 (% year-on-year)				Q2 2023 (% ch vs the same quarter in 2019)			
		RPK	ASK	PLF (%-pt) <sup>2</sup>	PLF (level) <sup>3</sup>	RPK	ASK	PLF (%-pt) <sup>2</sup>	PLF (level) <sup>3</sup>
<b>TOTAL MARKET</b>	<b>100.0%</b>	<b>38.0%</b>	<b>34.4%</b>	<b>2.3%</b>	<b>82.4%</b>	<b>-6.3%</b>	<b>-5.5%</b>	<b>-0.7%</b>	<b>82.4%</b>
Africa	2.7%	38.9%	39.7%	-0.4%	69.9%	-9.2%	-7.7%	-1.1%	69.9%

<sup>1</sup>% of industry RPKs in 2022

<sup>2</sup>Change in load factor

<sup>3</sup>Load factor level

**Note:** The total industry and regional growth 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 which the carrier is registered; it should not be considered as regional traffic.

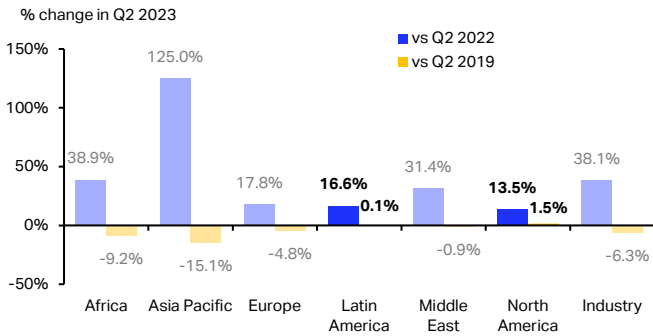


## Americas

- In Q2 2023, airlines in North America and Latin America grew their total RPKs by 13.5% and 16.6% YoY, respectively. With continued strong performance, the Americas region has maintained its lead in restoring and surpassing pre-pandemic levels of passenger traffic. In Q2 2023, RPKs for North American airlines surpassed Q2 2019 levels by 1.5%, followed closely by Latin American airlines, which reported a return (0.1% above) to 2019 levels (Chart 64).
- International RPKs flown by North American carriers gained 29.3% in Q2 2023 over the same period in 2022, surpassing their 2019 levels by 1.6%. As one of the biggest country markets in the world, the US drove the region's international passenger traffic recovery in Q2 2023, with RPKs only 2.1% below 2019 levels. However, the significant improvement of the Canadian market in recent quarters has allowed the country to surpass 2019 passenger traffic levels in Q2 2023 (Chart 65, Chart 68).
- Latin American airlines had the second lowest international passenger traffic growth amongst the regions in Q2 2023, with a 25.8% YoY increase in international RPKs. However, this brought Latin American airlines' traffic closer to pre-pandemic levels than is the case for African and Asia Pacific airlines, with the formers' RPKs sitting 8.5% below Q2 2019 levels (Chart 65). This result can be attributed to the slow recovery in important regional markets such as Argentina, Peru, Chile, and Brazil, which remained 0.7% to 10.5% below 2019 levels. Nevertheless, Colombia, Mexico, Ecuador, Costa Rica, and the Dominican Republic have seen a strong recovery.
- Ticket sales showed a positive trend in the second quarter, and recent data suggest that airlines in the Americas region are increasing their capacity to cover the summer season (Chart 67). Although ticket sales in the region slightly outperformed the global average trend, the gap has narrowed in the latest period as global ticket sales picked up momentum and caught up with their pre-crisis volumes.
- Cargo traffic for North American carriers continued to trend downwards in the second quarter, sitting 9.4% below Q2 2022 levels. While their CTGs remained 5.5% above 2019 levels, North American airlines saw the most significant decline in cargo traffic after European carriers. The decline in North America's air cargo demand can partly be explained by the rebound in the maritime industry. Bucking the global trend, cargo traffic for Latin American carriers grew to 3.1% above Q2 2022 CTGs, while remaining 0.2% below 2019 levels for the same period. These trends reflect the strong demand for goods and services produced in Latin America. Notably, Colombia and Ecuador are the world's second and third largest flower exporters for Mother's Day, and more than 95% of these exports are transported by air (Chart 66).
- Several Latin American countries continued to maintain their O-D passenger traffic above 2019 levels. The recovery in the Dominican Republic is a clear example of the resilience of the so-called "sand destinations", demonstrating how the Caribbean states have benefited from air service expansions, flexible operating environments, and government policies that promote tourism in the region. Cuba, on the other hand, continued to lag in the recovery (Chart 68).
- Around one-third of global aircraft deliveries in 2023 will be destined for North America, mostly to the US. After surpassing 2019 levels last year, North America's deliveries are expected to grow by an additional 92 units in 2023, aligning with the region's expected full recovery in passenger traffic this year. Meanwhile, deliveries to Latin American airlines rebounded to pre-pandemic levels in 2022, consistent with the rising demand for air travel in this area (Chart 69).

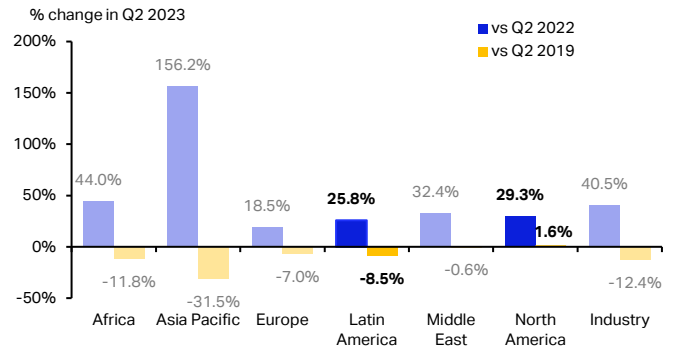


**Chart 64: Growth in RPKs by airline region of registration, Americas**



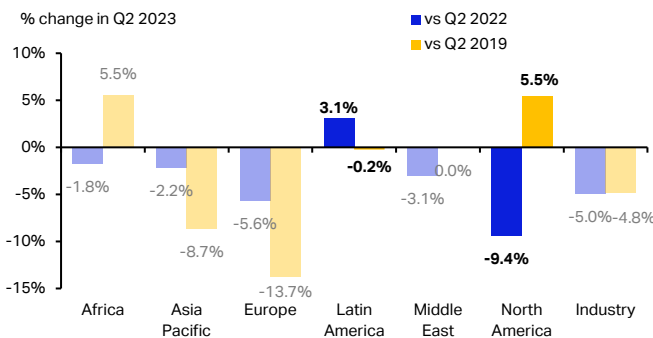
Source: IATA Sustainability and Economics, IATA Monthly Statistics

**Chart 65: Growth in international RPKs by airline region of registration, Americas**



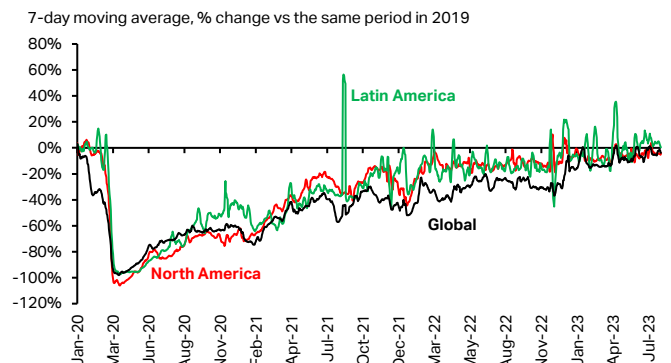
Source: IATA Sustainability and Economics, IATA Monthly Statistics

**Chart 66: Growth in CTKs by airline region of registration, Americas**



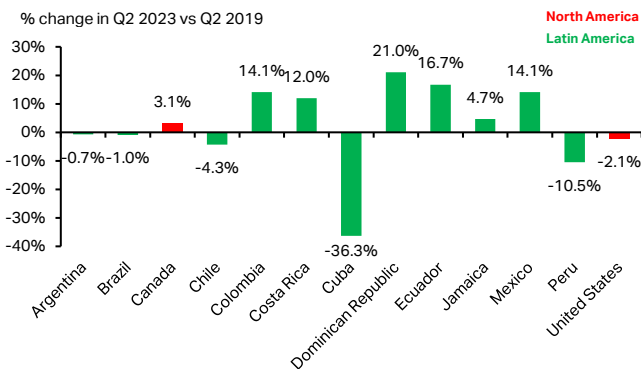
Source: IATA Sustainability and Economics, IATA Monthly Statistics

**Chart 67: Ticket sales by region (7-day moving average), Americas**



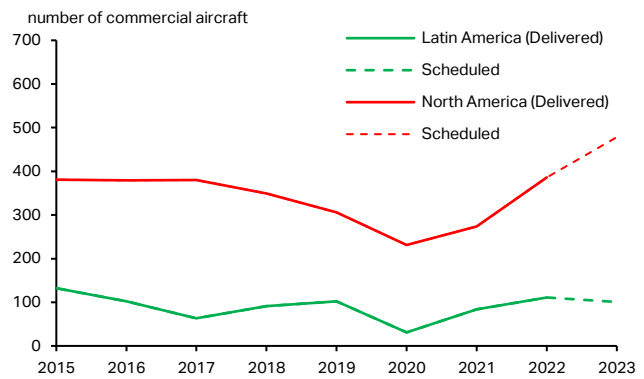
Source: IATA Sustainability and Economics, DDS

**Chart 68: Passenger traffic (O-D) growth by country in Q2 2023, Americas**



Source: IATA Sustainability & Economics, DDS

**Chart 69: Aircraft deliveries in 2015-2023 (scheduled), Americas**



Source: IATA Sustainability and Economics, Cirium

	World share <sup>1</sup>	Q2 2023 (% year-on-year)				Q2 2023 (% ch vs the same quarter in 2019)			
		RPK	ASK	PLF (%-pt) <sup>2</sup>	PLF (level) <sup>3</sup>	RPK	ASK	PLF (%-pt) <sup>2</sup>	PLF (level) <sup>3</sup>
<b>TOTAL MARKET</b>	<b>100.0%</b>	<b>38.0%</b>	<b>34.4%</b>	<b>2.3%</b>	<b>82.4%</b>	<b>-6.3%</b>	<b>-5.5%</b>	<b>-0.7%</b>	<b>82.4%</b>
Latin America	6.4%	16.6%	16.3%	0.2%	81.7%	0.1%	1.6%	-1.2%	81.7%
North America	28.8%	13.5%	14.1%	-0.4%	86.6%	1.5%	1.6%	-0.1%	86.6%

<sup>1</sup>% of industry RPKs in 2022

<sup>2</sup>Change in load factor

<sup>3</sup>Load factor level

**Note:** The total industry and regional growth 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 which the carrier is registered; it should not be considered as regional traffic.

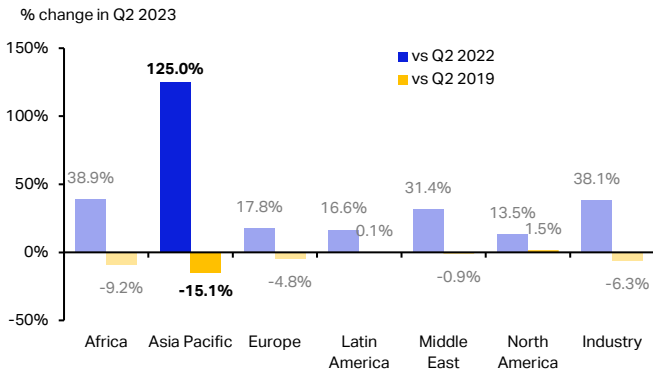


## Asia Pacific

- The Asia Pacific airlines saw continued strong recovery in traffic in Q2 2023. RPKs of airlines in the region increased by 125.0% compared to the same period last year (Chart 70). Like in the previous quarter, this was the fastest growth among the regions. It is important to note that when compared to pre-covid traffic levels, Asia Pacific only restored 84.9% of their Q2 2019 RPKs, lagging other regions. Nonetheless, this was an improvement from the 74.2% recovered in Q1 2023 (compared to Q1 2019 RPKs). Total ASKs of airlines in the region grew by 102.4% YoY in Q2 2023, reaching 87.8% of pre-pandemic levels and marking a significant increase in capacity this year. Additionally, the passenger load factor for the region's airlines improved, showing a YoY increase of 7.9 ppts and reaching 78.8%. The increase in total ASK and passenger load factor are in line with the growth in demand for air travel in the region.
- These trends are even more pronounced regarding international RPKs in the region as these grew by 156.2% in Q2 2023 compared to the same period last year (Chart 71). Starting from a relatively low base, as there were still some border restrictions in the region, this was by far the strongest performance across the regions. The slower reopening of borders in the Asia Pacific when compared to other regions meant that recovery only started late last year, leaving international RPKs for the region at a mere 68.5% of the Q2 2019 level, the lowest of the regions.
- Cargo traffic for Asia Pacific airlines during Q2 2023 declined by 2.2% compared to Q2 2022 and by 8.7% compared to pre-pandemic levels (Chart 72). This is mainly due to weak demand for cargo traffic within the Asia Pacific region.
- For most of 2022, ticket sales in the region were below the global average. However, ticket sales caught up the global average in Q1 2023 as border restrictions were lifted, and this trend continued in Q2 2023 (Chart 73).
- Outside of the Greater China region, economies have seen a remarkable recovery in passenger numbers. From the major country markets we track, India, Japan, and Vietnam have seen passenger traffic approach or surpass pre-covid levels, driven by very strong domestic passenger traffic demand. While passenger traffic in other economies of the region remains more than 5% below 2019 levels, growth was strong compared to the previous quarter (Chart 74).
- The number of aircraft expected to be delivered in the Asia Pacific region remains relatively low as the region has yet to recover to pre-covid levels (Chart 75). However, deliveries have maintained a steady increase from the depth of 2020 levels, and the region expects a 15% YoY increase in new aircraft for 2023. The region typically accounted for the largest share of global aircraft deliveries prior to the pandemic, but this has dropped due to slower traffic recovery in the region.

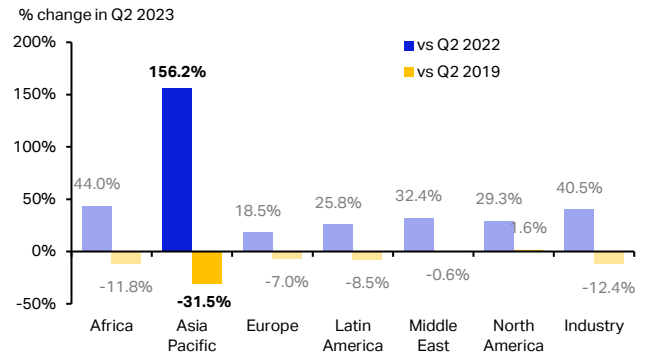


**Chart 70: Growth in RPKs by airline region of registration, Asia Pacific**



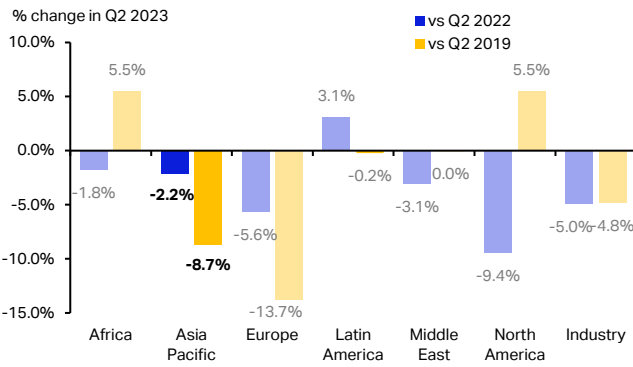
Source: IATA Sustainability and Economics, IATA Monthly Statistics

**Chart 71: Growth in international RPKs by airline region of registration, Asia Pacific**



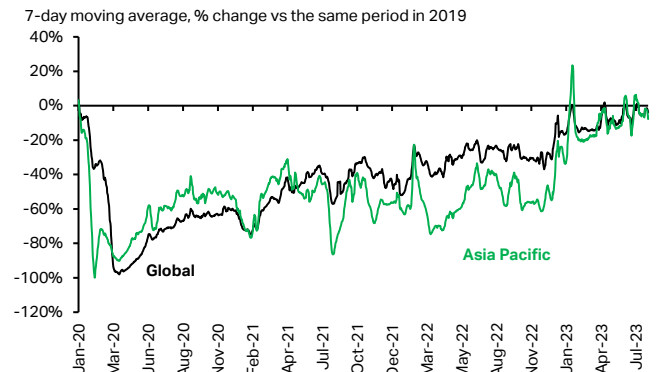
Source: IATA Sustainability and Economics, IATA Monthly Statistics

**Chart 72: Growth in CTKs by airline region of registration, Asia Pacific**



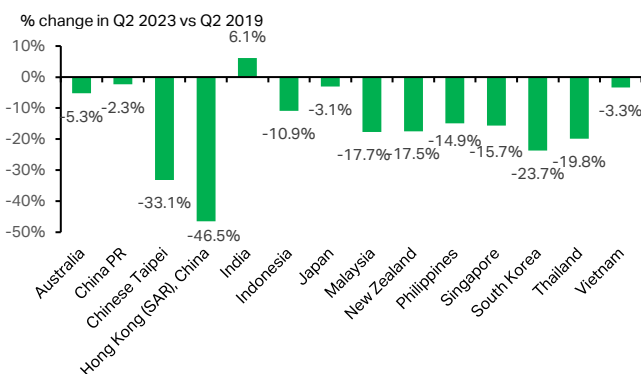
Source: IATA Sustainability and Economics, IATA Monthly Statistics

**Chart 73: Ticket sales by region (7-day moving average), Asia Pacific**



Source: IATA Sustainability & Economics, DDS

**Chart 74: Passenger traffic (O-D) growth by country in Q2 2023, Asia Pacific**



Source: IATA Sustainability and Economics, DDS

**Chart 75: Aircraft deliveries in 2015-2023 (scheduled), Asia Pacific**



Source: IATA Sustainability and Economics, Cirium

	World share <sup>1</sup>	Q2 2023 (% year-on-year)				Q2 2023 (% ch vs the same quarter in 2019)			
		RPK	ASK	PLF (%-pt) <sup>2</sup>	PLF (level) <sup>3</sup>	RPK	ASK	PLF (%-pt) <sup>2</sup>	PLF (level) <sup>3</sup>
<b>TOTAL MARKET</b>	<b>100.0%</b>	<b>38.0%</b>	<b>34.4%</b>	<b>2.3%</b>	<b>82.4%</b>	<b>-6.3%</b>	<b>-5.5%</b>	<b>-0.7%</b>	<b>82.4%</b>
Asia Pacific	22.1%	125.0%	102.4%	7.9%	78.8%	-15.1%	-12.2%	-2.7%	78.8%

<sup>1</sup>% of industry RPKs in 2022

<sup>2</sup>Change in load factor

<sup>3</sup>Load factor level

**Note:** The total industry and regional growth 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 which the carrier is registered; it should not be considered as regional traffic.

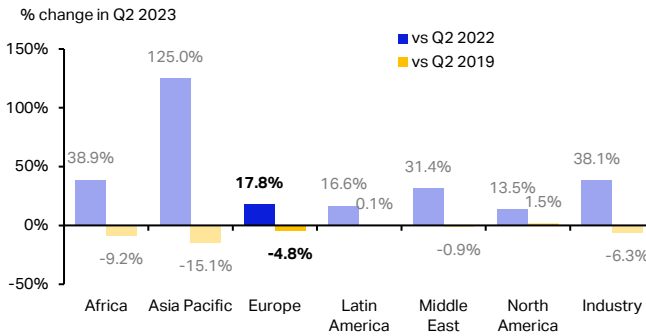


## Europe

- European airlines experienced rapid recovery over the first half of 2023, with 208 million RPKs in June, more than 40% higher compared to January. This is among the fastest growth rates in RPKs across all regions, raising the market share of European airlines from 25% to 29% of the global air passenger market by the end of June. On a quarterly basis, European airlines experienced a robust 17.8% increase in total passenger traffic compared to the same period in 2022 (Chart 76). Though not fully recovered by the end of the second quarter, European airlines managed to narrow the gap from pre-pandemic levels to less than 5%. This recovery was mostly led by domestic air passenger traffic, which has already surpassed its Q2 2019 level by more than 14.4%.
- European airlines account for almost 40% of global international RPKs. In the second quarter, international traffic handled by the airlines saw an 18.5% improvement compared to the same period last year. However, international RPKs remained 7% below pre-pandemic levels (Chart 77).
- In terms of capacity, ASKs by European airlines recovered to 95% of 2019 levels during the first half of this year, compared to 92% as regards the world average). Domestic air passenger capacity has surpassed the first half of 2019 by 3% already, while international passenger capacity lagged due to the impacts of the war in Ukraine. Still, international ASKs have managed to recover by almost 21% YoY and are only 6% short of their pre-pandemic level.
- The load factors of European carriers have been improving steadily on the air passenger side, rising from less than 76% in January to 88% in June, averaging 82% through the first half of the year. Cargo load factors, on the other hand, saw some declines during the second quarter, continuing the downward trend experienced since early 2021, and dropping below 50% in May and June. Cargo load factors averaged 52% for European carriers in the first half of 2023, 9 ppts higher than the average industry cargo load factor, and the highest compared to airlines from other regions.
- Ticket sales in Europe recovered rapidly in 2022 and hit pre-pandemic levels in terms of average daily ticket sales in early January this year. Since then, the upward trend has slowed down, aligning with the global average in recent months (Chart 79). These developments are partly a reflection of the varied O-D passenger trends for the region's major markets. During the second quarter of this year, Portugal continued to stand out with 17% more traffic compared to pre-pandemic levels, leading the recovery in tourism travel. Greece, Italy, Poland, and Spain also registered growth in Q2 2023 to above their 2019 passenger levels. Despite the recovery in the breadth of Europe's connectivity, O-D passengers in Finland and Germany were still 25% and 19% below their respective 2019 levels during the second quarter. With the warm weather in July and August, we expect Q3 numbers to improve in Nordic tourism destinations especially, including Finland, Norway, and Sweden (Chart 80).
- In the realm of air cargo, fluctuations have been observed across all regions. After experiencing a downward trajectory throughout 2022, total air cargo traffic for European airlines began stabilizing at the beginning of 2023. During the second quarter of 2023, these airlines transported approximately 5.6% less cargo compared to the same period in 2022, and 13.7% less cargo compared to pre-pandemic levels (Chart 78). During the first half of 2023, Europe's air cargo averaged 86% of pre-pandemic levels, the weakest performance among all regions.
- European airlines demonstrated confidence in their traffic growth as they continued to acquire new aircraft for this year. Maintaining their steady growth in delivery volumes from 2020, deliveries are set to grow by 19% in 2023. With 199 units delivered and an additional 175 aircraft to be received in Europe, a total of 374 aircraft deliveries places European carriers as the third-largest recipients of aircraft in 2023 (25% share of global deliveries) (Chart 81).

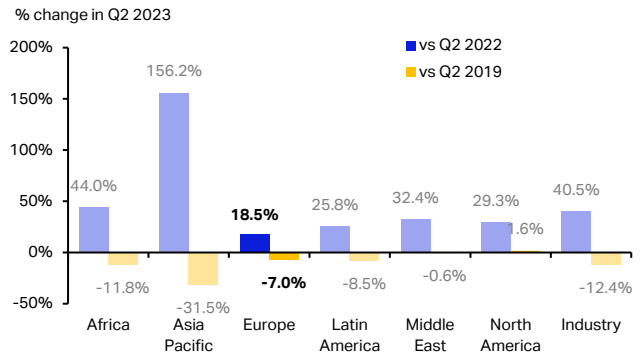


**Chart 76: Growth in RPKs by airline region of registration, Europe**



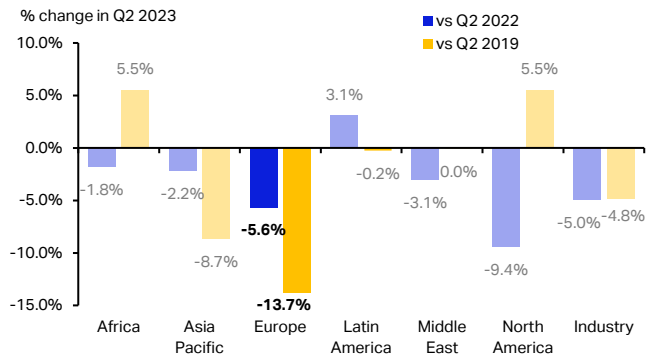
Source: IATA Sustainability and Economics, IATA Monthly Statistics

**Chart 77: Growth in international RPKs by airline region of registration, Europe**



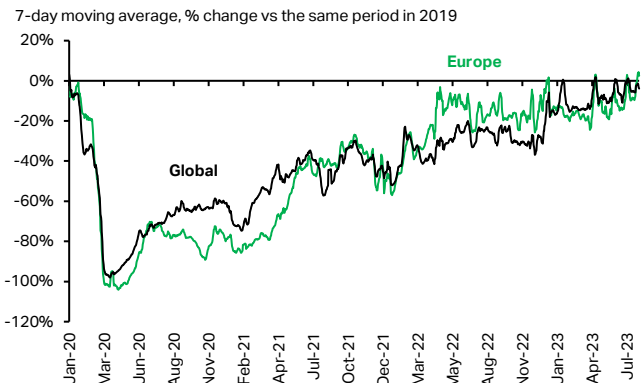
Source: IATA Sustainability and Economics, IATA Monthly Statistics

**Chart 78: Growth in CTKs by airline region of registration, Europe**



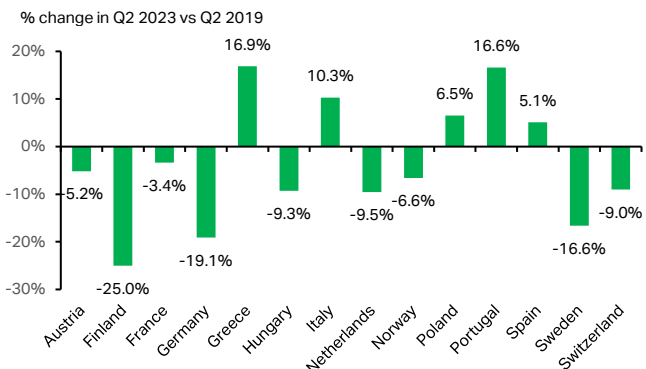
Source: IATA Sustainability and Economics, IATA Monthly Statistics

**Chart 79: Ticket sales by region (7-day moving average), Europe**



Source: IATA Sustainability and Economics, DDS

**Chart 80: Passenger traffic (O-D) growth by country in Q2 2023, Europe**



Source: IATA Sustainability and Economics, DDS

**Chart 81: Aircraft deliveries in 2015-2023 (scheduled), Europe**



Source: IATA Sustainability and Economics, Cirium

	World share <sup>1</sup>	Q2 2023 (% year-on-year)				Q2 2023 (% ch vs the same quarter in 2019)			
		RPK	ASK	PLF (%-pt) <sup>2</sup>	PLF (level) <sup>3</sup>	RPK	ASK	PLF (%-pt) <sup>2</sup>	PLF (level) <sup>3</sup>
<b>TOTAL MARKET</b>	<b>100.0%</b>	<b>38.0%</b>	<b>34.4%</b>	<b>2.3%</b>	<b>82.4%</b>	<b>-6.3%</b>	<b>-5.5%</b>	<b>-0.7%</b>	<b>82.4%</b>
Europe	30.8%	17.8%	13.6%	3.0%	85.4%	-4.8%	-4.7%	-0.1%	85.4%

<sup>1</sup>% of industry RPKs in 2022

<sup>2</sup>Change in load factor

<sup>3</sup>Load factor level

**Note:** The total industry and regional growth 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 which the carrier is registered; it should not be considered as regional traffic.

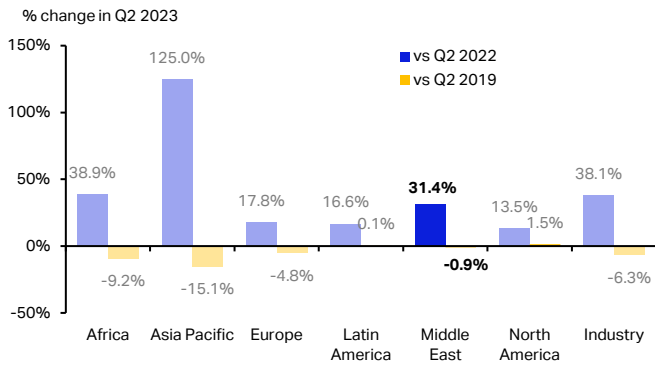




## Middle East

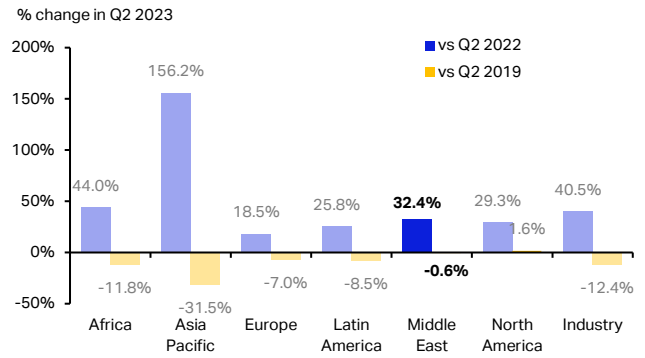
- The passenger traffic recovery has been strong for Middle East carriers with 31.4% YoY in the second quarter of 2023. The region's airlines saw their RPKs reach within 0.9% of their Q2 2019 levels. The Middle East outperformed the global recovery in RPKs, which reached 93.7% (within 6.3%) of pre-covid levels for the quarter (Chart 82). Since most of the passenger traffic for the Middle East is international, total RPKs followed similar growth trends and recovery rates as international RPKs (Chart 83).
- Ticket sales for the region have outperformed the global average and continue to trend upward, indicating sustained passenger demand (Chart 85). Local holiday shifts in the region caused some fluctuations but the overall trend remains positive.
- The Middle East also saw a solid recovery in origin-destination (O-D) passenger traffic in Q2 2023 compared to pre-covid periods. Passenger traffic growth generally varied among the countries in the region, with the strongest performances seen in the UAE, Qatar, and Jordan. The UAE led with an impressive 17.2% growth in O-D passenger traffic, compared to the same period in 2019. Other countries such as Kuwait and Saudi Arabia were within 2% and 5.6% of full recovery. While Iran's O-D passenger traffic remained 34.4% below pre-covid levels (Chart 86), other countries also exhibited subdued growth in the second quarter compared to the previous period. This was primarily due to the timing of Ramadan in 2023 compared to 2019 (Chart 86).
- Although the annual growth in available seat kilometers (ASKs) was outpaced by the growth in RPKs, capacity still increased by 24.6% compared to the same period last year. As a result of the slower capacity growth, the passenger load factor for the region increased by 4.1 percentage points compared to the same period last year.
- Cargo activity for Middle East airlines decreased in the second quarter of 2023 by 3.1% compared to the same period last year. This was still an improvement relative to the 8.1% YoY drop in the first quarter of 2023. Compared to 2019, second quarter cargo activity was flat. Middle East carriers have demonstrated better cargo activity in the second quarter compared to the global activity which was 5.0% and 4.8% below 2022 and 2019 levels, respectively.
- Aircraft deliveries in the Middle East have maintained an upward trend since the lows of 2020. Deliveries for 2023, including 42 planes that are scheduled to be received by the end of the year, are set to increase by nearly 50% over 2022 numbers. With 90 aircraft in total for 2023, Middle East aircraft deliveries are set to recover to their 2019 levels. This region has also seen a shift in deliveries from predominantly widebody jets in 2019 to narrowbodies since 2020. The scheduled deliveries for 2023 indicate growth in both types of jet aircraft, with narrowbodies still accounting for most of the deliveries in the region (Chart 87).

**Chart 82: Growth in RPKs by airline region of registration, Middle East**



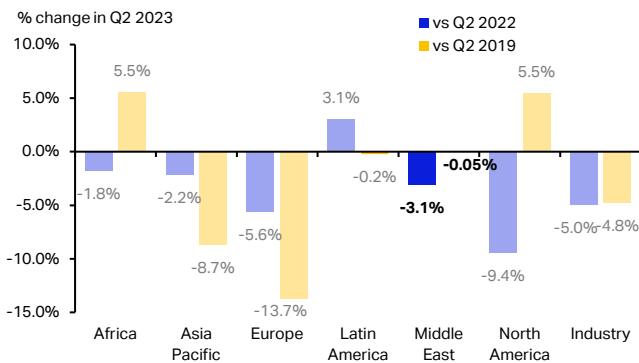
Source: IATA Sustainability and Economics, IATA Monthly Statistics

**Chart 83: Growth in international RPKs by airline region of registration, Middle East**



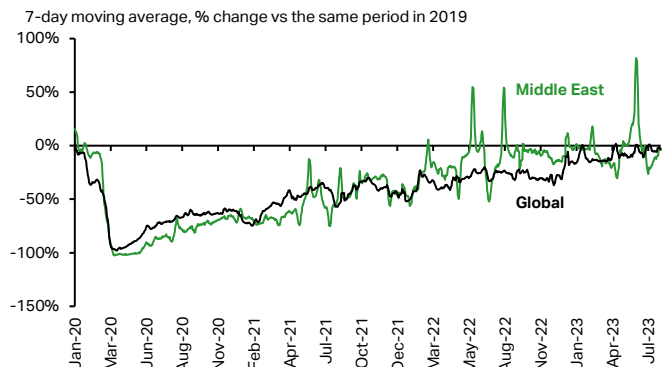
Source: IATA Sustainability and Economics, IATA Monthly Statistics

**Chart 84: Growth in CTKs by airline region of registration, Middle East**



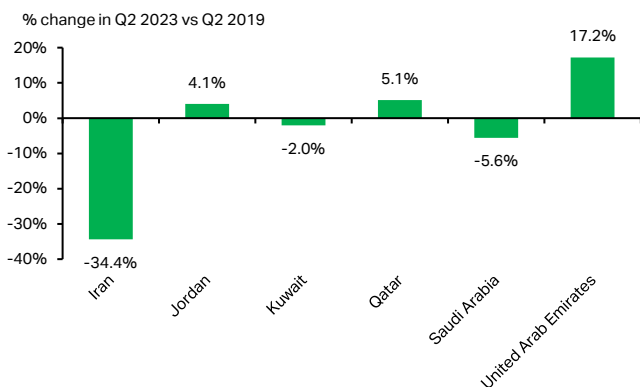
Source: IATA Sustainability and Economics, IATA Monthly Statistics

**Chart 85: Ticket sales by region (7-day moving average), Middle East**



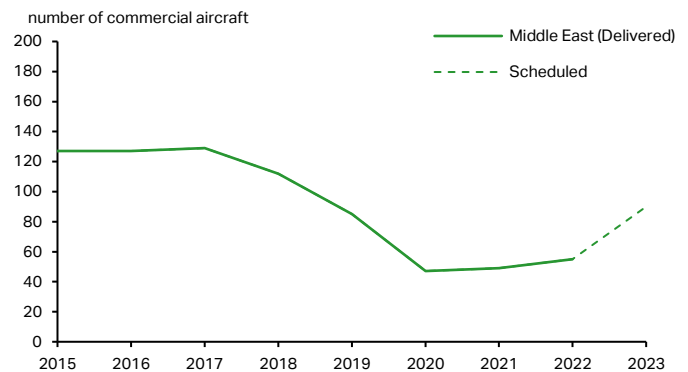
Source: IATA Sustainability and Economics, DDS

**Chart 86: Passenger traffic (O-D) growth by country in Q2 2023, Middle East**



Source: IATA Sustainability and Economics, DDS

**Chart 87: Aircraft deliveries in 2015-2023 (scheduled), Middle East**



Source: IATA Sustainability and Economics, Cirium

	World share <sup>1</sup>	Q2 2023 (% year-on-year)				Q2 2023 (% ch vs the same quarter in 2019)			
		RPK	ASK	PLF (%-pt) <sup>2</sup>	PLF (level) <sup>3</sup>	RPK	ASK	PLF (%-pt) <sup>2</sup>	PLF (level) <sup>3</sup>
<b>TOTAL MARKET</b>	<b>100.0%</b>	<b>38.0%</b>	<b>34.4%</b>	<b>2.3%</b>	<b>82.4%</b>	<b>-6.3%</b>	<b>-5.5%</b>	<b>-0.7%</b>	<b>82.4%</b>
Middle East	9.8%	31.4%	24.6%	4.1%	78.6%	-0.9%	-3.3%	1.9%	78.6%

<sup>1</sup>% of industry RPKs in 2022

<sup>2</sup>Change in load factor

<sup>3</sup>Load factor level

**Note:** The total industry and regional growth 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 which the carrier is registered; it should not be considered as regional traffic.



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