Air Cargo Market Analysis

Air cargo activity continued to decline in December

- Global air cargo tonne-kilometers (CTKs) dropped by 15.3% year-on-year (YoY) in December. This is also 7.4% lower than the CTKs for the same month in 2019. The industry did not perform as well as expected in a traditional peak season due to multiple headwinds in the current global economy. For the full 2022 calendar year, industry-wide CTKs were 8.0% below 2021 levels and 1.6% below 2019 levels.

- Available cargo tonne-kilometers (ACTKs) contracted by 2.2% YoY in December – the third month in a row of YoY contractions. This is mainly a result of airlines responding to supply imbalances from the softening demand.

- Compared to December 2019, North America continued to be the only region fully recovered to pre-pandemic levels in terms of total CTKs. Latin America sustained its lead in the growth of international CTKs among all regions, registering a 2.3% YoY growth in December.

- Inflation in the G7 countries pulled back to 6.8% in December from 7.4% in November - the greatest decline in 2022. Both oil and jet fuel prices declined in December, slightly decreasing the unusually wide jet crack spread.

Air cargo demand slowed further in December

Industry-wide air cargo demand, measured by cargo tonne-kilometers (CTKs), remained broadly unchanged at 20.6 billion in December. This represents a 15.3% decline compared to the same month in 2021 and is also 7.4% lower than the corresponding pre-pandemic level (Chart 1).

Seasonally adjusted (SA) air cargo demand also declined in December. Industry-wide SA CTKs contracted by 15.6% compared with December 2021, following the decline of 13.8% YoY in November.

**Chart 1: Global CTKs, actual and seasonally adjusted (SA)**

From a year-to-date (YTD) perspective, the global air cargo industry has achieved 250.2 billion CTKs.

Air cargo market - December 2022

<table>
<thead>
<tr>
<th>World share</th>
<th>December 2022 (% ch vs the same month in 2019)</th>
<th>December 2022 (% year-on-year)</th>
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<tbody>
<tr>
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<td>CTK ACTK CLF (%-pt)2 CLF (level)3</td>
<td>CTK ACTK CLF (%-pt)2 CLF (level)3</td>
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<tr>
<td>TOTAL MARKET</td>
<td>100.0% -7.4% -7.0% -0.2% 47.2%</td>
<td>-15.3% -2.2% -7.3% 47.2%</td>
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<tr>
<td>International</td>
<td>88.8% -7.7% -7.1% -0.3% 52.7%</td>
<td>-15.0% -0.5% -9.6% 52.7%</td>
</tr>
</tbody>
</table>

1% of industry CTKs in 2022  2Change in load factor vs same month in 2019  3Load factor level

Although this is 8.0% lower than the same period in 2021, it still tracks close to the 2019 pre-pandemic level with a 1.6% contraction YTD.

The weaker air cargo demand is a result of multiple headwinds. Inflation remains high, curtailing the spending capacity of households. The ongoing war in Ukraine disrupts trade flows, and the unusual strength of the US dollar makes commodities traded in US dollars more expensive in local currency terms.

Global goods trade growth and air cargo activity

In November, global goods trade decreased by 1.5% YoY, down from a 3.4% increase YoY in October (Chart 2).

**Chart 2: Growth in global goods trade and CTKs**

Source: IATA Statistics, Netherlands CBFI
Given that global CTKs declined 13.5% in November, this would suggest that air cargo is more affected by the shrinking global trade compared to maritime transport (Chart 2). However, air cargo’s relative growth performance compared with maritime improved slightly from -16.9% in October to -12.0% in November.

New export orders – historically a leading indicator for air cargo shipments – remained below the critical 50 (no change) line for major economies. Global export orders stayed at the same level since October, suggesting continued deceleration on average. Germany’s export orders continued to improve in December, signalling a degree of normalization after the months-long impact of the war in Ukraine. Other major economies that showed slight improvements in their export orders in December were the US and Japan, while South Korea and China registered lower new export orders in December compared to November (Chart 3).

Chart 3: New export orders, manufacturing PMIs

<table>
<thead>
<tr>
<th>Country</th>
<th>PMI 2022</th>
<th>PMI 2021</th>
<th>PMI 2020</th>
<th>PMI 2019</th>
<th>PMI 2018</th>
</tr>
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<td>Korea</td>
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<td>Global PMI</td>
<td>51</td>
<td>52</td>
<td>53</td>
<td>54</td>
<td>55</td>
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</tbody>
</table>

Sources: Markit

The YoY change in new export orders has been hovering around -10% since September. Owing to the historical relationship between this indicator and the industry wide CTKs, the relative stability of the former could point to a stabilization also in air cargo demand going forward (Chart 4).

Chart 4: CTK growth versus global new export orders

Air cargo capacity continued to decline

Global air cargo capacity, measured by available cargo tonne-kilometers (ACTKs), contracted by 2.2% YoY, marking the third month in a row of YoY contraction since October 2022. Similarly, SA ACTKs in December were 2.1% lower than the same month in 2021 (Chart 5).

Chart 5: ACTK levels, actual and seasonally adjusted

Airlines reduced air cargo capacity mainly to respond to the supply imbalance that has emerged as demand has fallen YoY since March. The industry SA cargo load factor (CLF) in December was 47.2%, dropping from 49% in previous two months.

Inflation rates stabilized in December as the oil price fell

Year-on-year inflation, as measured by the Consumer Price Index (CPI) for the G7 countries, dropped to 6.8% in December, marking greatest decline in the rate of inflation in 2022. Producer (input) prices continued to retreat by 0.8 ppts to 12.7% in October 2022 (Chart 6), recording the lowest rate year-to-date.

Chart 6: G7 headline CPI and PPI inflation

The declines in CPI in the G7 countries in December, in part, reflects the decline in the price of oil over the same period. Oil is an important contributor to producer prices, and a major cost to airlines directly.

Air Cargo Monthly Analysis – December 2022
The average Brent crude oil price decreased to USD 81.6 per barrel (bbl) in December from USD 90.9 per bbl in November. However, the jet crack also retreated. The average spread was USD 38.5 per bbl in December, compared with the peak level of USD 57.1 per bbl in June 2022 (Chart 7).

Chart 7: Global oil price, monthly average

[Graph showing the monthly average oil price from January 2016 to November 2022]

Int’l CTKs – Latin America regained momentum while APAC saw the regions’ greatest decline

Industry-wide international CTKs contracted by 15.3% YoY in December, compared with a 13.9% YoY decline in the previous month. This is the biggest drop in YoY growth this year (Chart 8).

After the 8.0% YoY growth in international CTKs for November, airlines in Latin America continued their momentum in international CTKs in December, and registered a 2.3% YoY growth. In comparison, all other regions saw negative YoY growth in international air cargo activity, contrasting their outstanding performance in 2021.

Chart 8: YoY growth in international CTK by region

[Graph showing the YoY growth in international CTKs for different regions]

Asia Pacific, which accounts for the largest share of international CTKs globally, saw the greatest YoY decline among the regions at -20.4% in December. This was also the biggest drop of the year, mainly a result of China’s rising Covid cases, which led to a drop in export orders, cargo output delays, and disruptions in supply chains.

North America showed a smaller decline of 8.5% YoY in international CTKs in December, which is 1.5 ppts lower than in November. Airlines in Europe continued to be most affected by the Ukraine war in December, suffering a 17.9% YoY contraction in international air cargo demand. Airlines in the Middle East faced a decrease of 14.4% YoY in international CTKs, while airlines in Africa saw a smaller decline in international CTKs of 10.0% YoY compared with December 2021.

Air cargo activity between regions maintained downward trends

The seasonally adjusted air cargo demand by route area in December saw declines in all major region-pair markets except for the North America-Europe market. This market registered the first positive month-on-month growth since April this year, and led among all routes in terms of the recovery since the beginning of the pandemic. (Chart 9).

Chart 9: Seasonally adjusted CTKs by route area

The air cargo demand between Asia-North America, in spite of recent deterioration, remains the only other route that stays above its level achieved in January 2020.

The Within Europe region remained broadly unchanged at 78% of the pre-pandemic levels in December, and continued to be the least recovered route compared to its levels achieved in January 2020.

All other routes, including Europe-Asia, Within Asia, Middle East-Asia, and Middle East-Europe, saw their cargo traffic decline from November to December, and remained between 5% to 20% below Jan 2020 level in terms of seasonally adjusted air cargo demand.
Air cargo market in detail - December 2022

<table>
<thead>
<tr>
<th>World share</th>
<th>December 2022 (% year-on-year)</th>
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<tbody>
<tr>
<td></td>
<td>CTK</td>
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<tr>
<td>TOTAL MARKET</td>
<td>100.0%</td>
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<tr>
<td>Africa</td>
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</tr>
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</table>

1% of industry CTKs in 2022 2Change in load factor 3Load factor level

CTK, 2022 %  ACTK, 2022 %  CLF

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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. Historical statistics are subject to revision.

IATA Economics economics@iata.org 06 February 2023

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