

Air Cargo Market Analysis

December 2022

Air cargo activity continued to decline in December

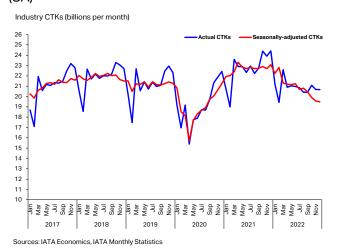
- Global air cargo tonne-kilometers (CTKs) dropped by 15.3% year-on-year (YoY) in December. This is also 7.4% lower
 than the CTKs for the same month in 2019. The industry did not perform as well as expected in a traditional peak
 season due to multiple headwinds in the current global economy. For the 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 tenth YoY contraction in a row since March 2022. 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.

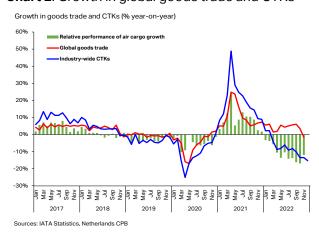
Although this is 8.0% lower than the same period in 2021, it still tracks close to the 2019 pre-pandemic level with a 1.6% contraction YTD.

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



Air cargo market - December 2022

	World	December 2022 (% ch vs the same month in 2019)			December 2022 (% year-on-year)				
	share 1	CTK	ACTK	CLF (%-pt) ²	CLF (level) ³	CTK	ACTK	CLF (%-pt) ²	CLF (level) ³
TOTAL MARKET	100.0%	-7.4%	-7.0%	-0.2%	47.2%	-15.3%	-2.2%	-7.3%	47.2%
International	86.8%	-7.7%	-7.1%	-0.3%	52.7%	-15.8%	-0.5%	-9.6%	52.7%

^{1%} of industry CTKs in 2022

²Change in load factor vs same month in 2019

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

New export order manufaturing PMIs (50 = No change, seasonally adjusted)

Japan PMI -China PMI -US PMI Korea PMI 70 65 60 55 50 45 40 35 30 20 May Mar May Nov Sep Mar Mar Mar Mar Nov Nov Nov Nov 2017

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**).

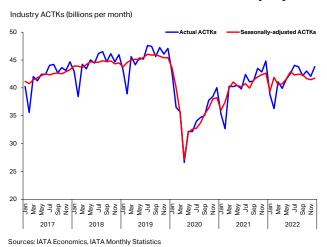
Chart 4: CTK growth versus global new export orders



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

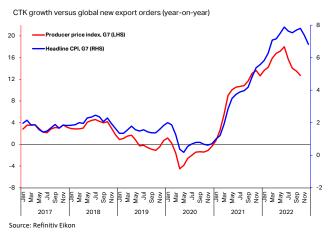


Airlines reduced air cargo capacity mainly to respond to the supply imbalance that has emerged as demand has fallen YoY since March. The industry SA cargo load factor (CLF) in December was 47.2%, dropping from 49% in previous two months.

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.

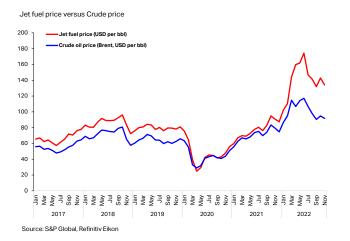
Chart 6: G7 headline CPI and PPI inflation



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.

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

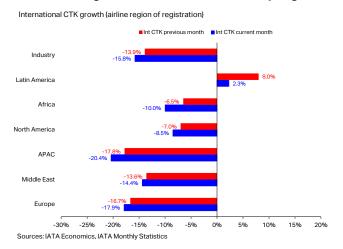


Int'l CTKs – Latin America regained momentum while APAC saw the regions' greatest decline

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



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

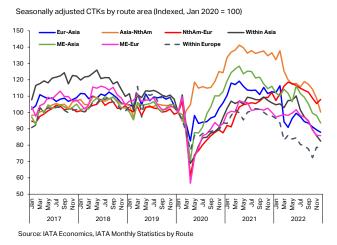
in export orders, cargo output delays, and disruptions in supply chains.

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-onmonth 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 detoriation, 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 achived 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

	World	December 2022 (% year-on-year)					
	share 1	CTK	ACTK	CLF (%-pt) ²	CLF (level) ³		
TOTAL MARKET	100.0%	-15.3%	-2.2%	-7.3%	47.2%		
Africa	2.0%	-10.0%	1.3%	-5.4%	43.2%		
Asia Pacific	32.4%	-21.2%	-3.9%	-11.6%	52.8%		
Europe	21.9%	-17.4%	-7.0%	-7.0%	55.9%		
Latin America	2.7%	0.0%	27.6%	-8.9%	32.2%		
Middle East	13.0%	-14.4%	2.8%	-9.2%	45.4%		
North America	28.0%	-8.5%	-2.9%	-2.5%	40.6%		
International	86.8%	-15.8%	-0.5%	-9.6%	52.7%		
Africa	2.0%	-10.0%	0.2%	-5.0%	44.4%		
Asia Pacific	29.7%	-20.4%	-1.4%	-13.8%	58.0%		
Europe	21.5%	-17.9%	-7.4%	-7.3%	57.4%		
Latin America	2.3%	2.3%	32.7%	-11.3%	38.0%		
Middle East	13.0%	-14.4%	3.0%	-9.3%	45.7%		
North America	18.4%	-8.5%	1.8%	-5.5%	49.5%		

¹% of industry CTKs in 2022

³Load factor level

	CTK, 2022 %		ACTK, 2022 %		CLF	CLF		
	2019	2021	2019	2021	2022 level	%-pt versus 2019	%-pt versus 2021	
TOTAL	-1.6%	-8.0%	-8.2%	3.0%	50.1%	3.3%	-6.0%	
Africa	8.3%	-1.4%	-15.3%	0.3%	46.3%	10.1%	-0.8%	
Asia Pacific	-7.8%	-8.8%	-17.2%	0.5%	58.3%	6.0%	-5.9%	
Europe	-8.7%	-11.5%	-16.5%	0.5%	56.7%	4.9%	-7.7%	
Latin America & Caribb.	-4.3%	13.1%	-14.3%	27.1%	39.2%	4.1%	-4.9%	
Middle East	-1.6%	-10.7%	-6.3%	4.3%	49.0%	2.3%	-8.2%	
North America	13.7%	-5.1%	8.2%	4.2%	41.5%	2.0%	-4.1%	
INTERNATIONAL	-1.6%	-8.2%	-9.0%	4.5%	56.1%	4.2%	-7.8%	
Africa	9.4%	-1.4%	-14.2%	-0.2%	47.3%	10.2%	-0.6%	
Asia Pacific	-3.9%	-7.4%	-12.2%	5.8%	64.5%	5.5%	-9.2%	
Europe	-9.1%	-11.8%	-17.3%	0.5%	58.9%	5.3%	-8.2%	
Latin America & Caribb.	-2.6%	15.0%	-10.8%	27.8%	47.1%	4.0%	-5.3%	
Middle East	-1.6%	-10.7%	-6.1%	4.5%	49.3%	2.2%	-8.4%	
North America	12.7%	-6.3%	5.1%	4.9%	50.0%	3.4%	-6.0%	

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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²Change in load factor