

Air Cargo Market Analysis

December 2021

Air cargo ends a dynamic year on a strong note

- Growth in industry-wide cargo tonne-kilometres (CTKs) rebounded in December, to 8.9% above December 2019, up from 3.9% from November. In 2021 overall, air cargo volumes rose by 18.7% year-on-year, the second-best yearly performance since our series started in 1990 (behind 2010). Volumes were 3.5% above the pre-crisis 2018 peak.
- Throughout the year, air cargo has been driven by a balance between robust demand for goods including PPE at
 the end of the year and supply chain issues partly linked to a lack of capacity. CTKs growth markedly overperformed
 growth in global goods trade (by 8.9 percentage points), partly due to the inventory restocking cycle.
- In 2021, available cargo tonne-kilometres (ACTKs) fell by 10.9% compared to 2019. Capacity did nevertheless come
 back slowly during the year due to improvements in international passenger traffic. In December 2021, ACTKs were
 only 4.7% below the same month in 2019. The tight market led to exceptionally high load factor and air cargo rates.

Air cargo ends a dynamic year on a strong note...

December 2021 saw a modest easing of the disruption that gripped air cargo during part of the year and caused a slowdown in growth in November. Together with robust demand, that helped industry-wide cargo tonne-kilometres (CTKs) rise 8.9% above 2019 levels in December. This is up from 3.9% in November and the best performance since April 2021 (11.4%). When compared to 2020, growth was roughly similar in December (8.4%) and November (9.0%).

Seasonally adjusted (SA) CTKs increased by 1.9% month-on-month in December, also the best outcome since April (**Chart 1**).

Chart 1: CTK levels, actual and seasonally adjusted



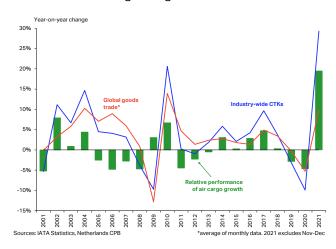
2021 as a whole was a strong year for air cargo, with volumes growing by 18.7% year-on-year, the best

annual performance since our series started in 1990. CTKs were 3.5% above the previous peak year of 2018. That came after a 9.9% year-on-year fall in CTKs in 2020, the largest decline in the time series. Note that in 2010, CTKs rebounded by 20.6% after a 9.7% decline the year prior.

... overperforming global goods trade

Strong demand allowed world goods trade to increase by around 9.8% year-on-year in 2021. Air cargo growth was twice as strong than the rebound in trade, exceeding this by 8.9% percentage points (ppts), a typical pattern during economic upturns (**Chart 2**).

Chart 2: Growth in global goods trade and CTKs



During such periods, businesses are often faced with surging demand, and turn to air freight to meet it rapidly, leading to an inventory restocking cycle.

Air cargo market overview - December 2021

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	World	December 2021 (% ch vs the same month in 2019)				December 2021 (% 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%	8.9%	-4.7%	6.8%	54.2%	8.4%	12.1%	-1.8%	54.2%
International	87.2%	9.4%	-6.5%	9.0%	62.1%	10.2%	13.7%	-2.0%	62.1%

In 2021, this was compounded by supply chain issues, which made air cargo relatively attractive compared to maritime shipping. There was a marked reduction in container shipping schedule reliability in 2021, and the relative cost of container shipping rose, though air remains overall more expensive for businesses. Vaccine deliveries and PPE shipments, typically carried by air, further contributed to the outperformance of air cargo and to the improvement in growth seen in December amid the spread of Omicron.

Strong demand was partly offset by supply issues...

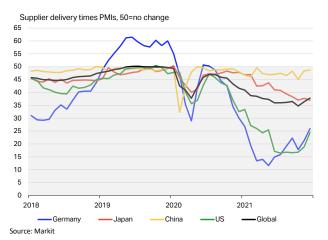
Demand and manufacturing activity were particularly strong in the first few months of 2021, amid a rebound in economic activity as consumers spent their excess savings on goods during lockdowns. Mid-year, consumption shifted somewhat to services as higher inflation and supply chain congestions dampened manufacturing activity.

Chart 3: CTK growth versus global new export orders



Despite that, the new export order component of the manufacturing PMI – historically a strong leading indicator of CTKs growth – remained in expansionary territory for the whole year. In December, it was up 4.2% compared to the same month in 2019 (**Chart 3**).

Chart 4: Supplier delivery times component of the manufacturing PMI



Amid this positive assessment of 2021 for air cargo, it is likely that growth did not meet its full potential. This is due to capacity having been insufficient or located in the wrong place, to the congestion seen at some key airports, labor shortages, quarantined crews, etc., as illustrated by the supplier delivery times component of the manufacturing PMI (**Chart 4**).

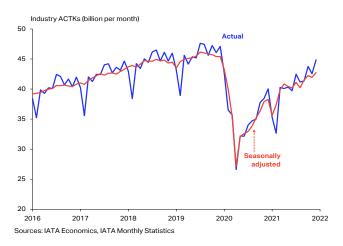
An index below the 50 mark shows lengthening delivery times, which normally would encourage shippers to use air cargo to benefit from its speed. However, in the current context this points directly to supply chain bottlenecks.

... and insufficient global cargo capacity...

In December 2021, industry-wide available cargo tonne-kilomets (ACTKs) were 4.7% below December 2019. They rose by 1.9% month-on-month in SA terms, which contributed to the improvement in CTKs growth—although capacity is often not available where it is needed the most. In 2021 overall, ACTKs were 10.9% below 2019, but rose by 13.8% compared to 2020.

Capacity has improved slowly throughout 2021 as space onboard passenger aircraft returned. ACTKs in passenger aircraft – bellyhold or preighters – were 38.6% below their 2019 level in the Jan-Nov 2021 period. There were many freighter conversions and deliveries, and asset utilization also grew, leading to a 25.9% increase in dedicated freighters ACTKs over the same period (**Chart 5**).

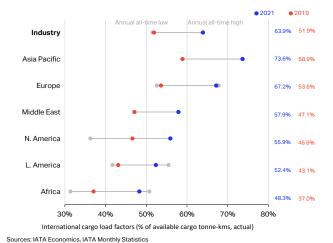
Chart 5: ACTK levels, actual and seasonally adjusted



...leading to a tight market and elevated load factors

The industry-wide cargo load factor (CLF) was 6.8 ppts above its December 2019 level in December, with load factors having eased slightly in recent months. In 2021, the CLF rose by 9.3 ppts versus 2019. Those developments were mirrored internationally, with the international CLF up 12.0 ppts to 63.9% in 2021 overall, an annual all-time high (**Chart 6**).

Chart 6: Cargo load factors by region of registration

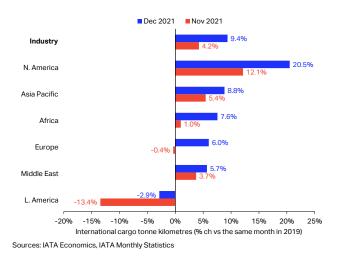


Another consequence of the tight air cargo market in 2021 has been exceptionally high air cargo rates. Despite starting the year at elevated levels, they moved upwards in H2 2021, reaching new records in December, at almost 150% above December 2019 levels, contributing to the significant increase in air cargo revenues for airlines active in the sector.

Widespread gains in international CTKs in December

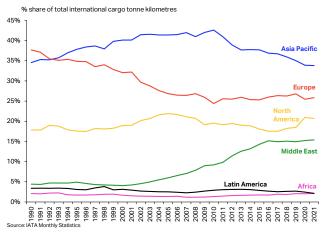
International CTKs rose by 9.4% versus December 2019. In 2021 overall, international CTKs rose by 7.4% compared to 2019 (**Chart 7**).

Chart 7: Int'l CTK growth versus the same month in 2019 (airline region of registration)



Airlines based in North America topped the growth chart in December, with their international CTKs growing by 20.5% versus the same month in 2019. They achieved the same feat for the year as a whole: up 20.2% versus 2019. Airlines in the region benefitted from strong demand for goods, and from more capacity available – international ACTKs were 0.2% above 2019 levels in 2021, the only region without a decline. The international market share of the region nevertheless slipped somewhat to 20.7%, after making strong gains in 2020 (**Chart 8**).

Chart 8: Regional shares of total international CTKs



In contrast, airlines in Asia Pacific struggled with a lack of capacity, down 17.1% in 2021 versus 2019. Demand for goods made in the region was nevertheless strong, including for PPE in November and December. International CTKs increased by 3.6% in 2021 versus 2019, and by 8.8% in December 2021, the second-best month of the year behind February.

Carriers in Africa experienced a 7.6% increase in their international CTKs in December 2021 versus the same month in 2019, up from 1.0% in November. Growth in the region has been dynamic for most of the year, up 11.3% versus 2019, driven by the Africa-Asia route. Africa's market share caught up with Latin America in 2021 for the first time in the annual series (2.2% of all international CTKs).

International CTKs of carriers registered in Europe rose by 6.0% in December 2021 versus December 2019, and by 3.6% in 2021 overall. With international ACTKs down 17.4% in 2021, the region was among the most impacted by congestion at airports and in supply chains, and by the lack of capacity.

International cargo volumes of Middle Eastern carriers expanded by 5.7% in December 2021 compared to December 2019. Growth decelerated in the year-end, partly driven by a downward trend in volumes on the important Middle East-Asia route. Overall, in 2021, international CTKs were 10.6% above 2019 volumes, giving the region a slight boost to its market share.

Airlines registered in Latin America had a difficult year, as several of them were engaging in lengthy restructuring processes. Their international CTKs fell by 15.2% in 2021 versus 2019, with their market share also eroding to 2.1% of the international total. That said, those restructuring processes are coming to an end, and December was the best month of the year, with a 2.9% decline compared to December 2019.

IATA Economics economics@iata.org 25 January 2022

Air cargo market in detail - December 2021

	World	December 2021 (% ch vs the same month in 2019)			December 2021 (% 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%	8.9%	-4.7%	6.8%	54.2%	8.4%	12.1%	-1.8%	54.2%
Africa	1.9%	6.7%	-20.8%	12.9%	50.2%	15.4%	11.4%	1.7%	50.2%
Asia Pacific	32.4%	4.1%	-13.2%	10.5%	63.4%	9.6%	7.9%	1.0%	63.4%
Europe	22.9%	6.0%	-5.7%	6.9%	62.3%	10.5%	16.2%	-3.2%	62.3%
Latin America	2.2%	-2.4%	-26.9%	10.3%	41.3%	19.4%	15.7%	1.3%	41.3%
Middle East	13.4%	5.7%	-9.2%	7.8%	55.6%	3.2%	9.7%	-3.5%	55.6%
North America	27.2%	21.7%	11.1%	3.8%	43.0%	6.6%	14.0%	-3.0%	43.0%
International	87.2%	9.4%	-6.5%	9.0%	62.1%	10.2%	13.7%	-2.0%	62.1%
Africa	1.9%	7.6%	-19.4%	12.8%	51.0%	15.5%	11.6%	1.7%	51.0%
Asia Pacific	29.5%	8.8%	-10.0%	12.3%	71.3%	14.2%	18.5%	-2.7%	71.3%
Europe	22.5%	6.0%	-5.9%	7.2%	64.0%	10.7%	16.1%	-3.1%	64.0%
Latin America	1.8%	-2.9%	-26.1%	11.8%	49.5%	19.7%	14.5%	2.1%	49.5%
Middle East	13.4%	5.7%	-9.2%	7.9%	56.0%	3.2%	9.7%	-3.6%	56.0%
North America	18.0%	20.5%	6.2%	6.5%	54.7%	7.2%	8.3%	-0.6%	54.7%

¹% of industry CTKs in 2021

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.

Air cargo year-to-date developments (Jan-December 2021)

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	Year-to-date (% ch vs the same period in 2019)					Year-to-date (% ch vs the same period in 2019			
	CTK	ACTK	CLF (%-pt) ²	CLF (level) ³		CTK	ACTK	CLF (%-pt) ²	CLF (level) ³
TOTAL MARKET	6.9%	-10.9%	9.3%	56.1%	International	7.4%	-12.8%	12.0%	63.9%
Africa	10.2%	-16.1%	11.4%	47.6%	Africa	11.3%	-14.6%	11.2%	48.3%
Asia Pacific	0.2%	-18.0%	11.7%	64.0%	Asia Pacific	3.6%	-17.1%	14.7%	73.6%
Europe	3.7%	-16.5%	12.5%	64.4%	Europe	3.6%	-17.4%	13.6%	67.2%
Latin America	-15.4%	-32.6%	9.0%	44.1%	Latin America	-15.2%	-30.2%	9.2%	52.4%
Middle East	10.5%	-10.1%	10.7%	57.4%	Middle East	10.6%	-10.1%	10.8%	57.9%
North America	19.8%	4.0%	6.0%	45.5%	North America	20.2%	0.2%	9.3%	55.9%

^{1%} of industry CTKs in 2021

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²Change in load factor vs same month in 2019

³Load factor level

²Change in load factor vs same period in 2019

³Load factor level ¹% of industry CTKs in 2021 ²Change in load factor vs same period in 2019

³Load factor level