

CARGO CHARTBOOK

Key points

- After a very volatile first quarter, so far in Q2 air cargo markets appear to be back down to end-2014 levels
- 2014 was a comeback year for air cargo, freight tonnes carried by air grew 4.5% outpacing world trade growth of 3.0%
- The economic cycle and world trade continue their upturn, with world trade expected to grow 3.7% in 2015
- Stronger growth in advanced economies and air freighted commodities leave room for cautious optimism later in 2015
- However, so far this year world trade and FTKs have stopped growing, partly due to the build-up in inventories
- Capacity challenges persists, for every 1 tonne of new freighter hull capacity 3 tonnes will be added by pax aircraft
- Cargo-only services are more sensitive to fuel price changes but on avg earned a premium of 10% over belly in 2014
- Yield performance has varied significantly by trade lane, direction and service type and lower ocean container rates point to increasing competitive pressures
- However, the steep fall in jet fuel costs is helping boost cargo profitability this year

Economic Outlook & Traffic Performance

Growth in air freight in 2014 was helped by continued upturn in the economic cycle and resilient demand for air freighted commodities (1). With the upturn taking hold in advanced economies, air freight demand was particularly favorably impacted. During upturn phases, FTK growth averages 3-5% points more than growth in world trade in goods. As firms replenish inventory and source components to build up production schedules.

2014 saw the strongest growth in air freight carried since the 2010 "rebound" in world trade, freight tonnes carried grew by 4.5% outpacing world trade growth of 3.0% (2). Year-to-April international FTK were 3.8% higher in 2015 compared to a year ago, however, when looking at seasonally adjusted FTK levels only a sideways trajectory can be observed since 2014.

In 2013, advanced economies contributed 18% to total global economic growth, compared to 51% in 2014. The lower than expected growth of advanced economies in 2015 is in part explained by exceptional events, severe Q1 weather in US and political grandstanding on sovereign debt deliberations in Europe rather than underlying drivers supporting deceleration. Improved growth performance in advanced economies, aided by accommodative monetary policy and loose bank lending standards (4), is still expected to continue in 2015. The combination of these factors is a source of optimism for ushering in another year for air cargo to outpace growth in overall world trade. However, weakness in emerging markets and scope for potential spill over from the slowing of the Chinese economy introduce downside risks for the outlook in 2015.









3. Growth in GDP

Source: ECB, Eederal Reserve





-US Banks

-European Banks

Demand Environment and Drivers (I)

Growth in global trade has continued to mirror FTK growth. The unusual spike in international FTKs seen in February is in part explained by the timing of the Lunar New Year and the backlog in US West Coast sea ports (5).

Manufacturing PMI slowed in May for the second consecutive month (6) but outlook for most major advanced economies remains positive or in expansionary territory.

However, a build-up in inventories has halted the underlying growth in air cargo demand so far this year and will likely continue to adversely impact air freight demand over the short term (2-3 months)(7). Furthermore, growth in shipments of semi-conductors has reduced (8). Nevertheless, in the medium term (3-9 months), air freight demand could be favorably supported by stronger consumer confidence (9) further boosted by the lagged impact of lower oil prices.



6. Purchasing Managers confidence survey & Air Freight Demand





7. Total Business inventories to sales ratio & FTKs



8. Semi-Conductor Shipments & Air Freight





Demand Environment and Drivers (II)

In Q4 of 2014 and Q1 of 2015 air freight demand was further stimulated by "one-off" events such as the backlog in US West Coast sea ports. This supported a boost in air freight, with over 50% of industry April yearto-date growth compared to the same period last year being realized on the Far East – North America route (10). The biggest boost came in February with FTKs growing by 33% year-on-year that month (11). DoT traffic data indicates that air cargo traffic to and from the US grew by 7.4% compared to 2014 Q1. Foreign carriers were the biggest beneficiaries with traffic volumes on international operations increasing by nearly 10% compared to an increase by US carriers of 2.3%. Since industry wide FTKs did not grow between November 2014 and May this year this temporary boost must have offset weaker underlying demand for air freight.

The reduction in value of goods shipped by air measured on a per kg basis was mostly explained by the strengthening of the USD rather than a significant change in the value of the cargo being shipped (12), which suggest that the boost in activity would have favorable impacts on profitability.

In the longer term, over the next 3-5 years, rising interest rates can have favorable nock on impacts for air freight. Higher interest rates would increase the cost of carrying inventory which would incentivize businesses to reduce non-productive time in their supply chain (13). The higher speed and greater reliability offered by air freight would allow air cargo to be a more attractive value proposition. 10. Share of growth in FTK - Q1 2015 vs. Q1 2014



Source: IATA

11. International Freight growth by major routes % change over year



12. Change in value – US trade by air and USD



Source: US Census, Note: * year-to-date 2014 vs. 2015



13. US Fed Governors' expectations for interest rates

Capacity and Competition

Deliveries of wide body freighter capacity have in most years been matched by retiring of older wide body freighter aircraft. Although in aggregate terms there has still been a net increase in wide body freighter capacity. Total wide body freighter capacity in service in Q2 of 2015 has surpassed the levels seen in 2007 prior to the Global Financial Crisis. All the while, payload capacity in storage remains at levels comparable to historical highs (14). This suggests that downward pricing pressures will remain on cargo only services even if circumstances, either a stronger up-cycle or one off events, were to boost demand for these services.

With the exception of February, freight load factors have been slipping in the first four months of 2015. The capacity challenge is further exacerbated by the developments on delivery of passenger aircraft. Deliveries of wide-body passenger aircraft have led to the addition of significant levels of hull capacity. For every one tonne of hull capacity added by a wide body freighter three tonnes will be added by wide body passenger aircraft (15).

Since 2010, two out of five freight tonnes of new payload capacity have been added by airlines registered in Asia, indicative of the growing importance of this region in global trade and aviation (16).

The increase in freighter aircraft utilization was initially in response to stronger cargo demand (17). Subsequently lower jet fuel prices reduced variable costs of operations and have increased the relative importance of maximizing the use of the aircraft assets. This in part contributed to the drop in load factors for cargo only operation by nearly a percentage point in 2014. The relatively steeper decline in ocean freight rates can further put pressure on air freight operators (18).

18. Ocean container and air freight rate growth



Source: Drewry, IATA CASS

14. Wide body freighter payload capacity





15. Payload capacity added - belly and freighter



16. Widebody Aircraft Deliveries by Airline Region

17. Freight load factor & freighter aircraft utilization



Revenues, costs and profits

At an aggregate industry level, cargo-only services have exhibited a greater sensitivity to fuel price changes. Cargo only services on average earned a premium of 10% in 2014 over belly hold services (19). On average at the industry level, the premium earned by cargo only services has gradually eroded.

Yield performance has varied significantly by trade lane, direction and service type (20). On average, across all major trade lanes the fall in yields for air cargo (cargo-only and belly) services in 2014 and 2015 have been lower than the fall in jet fuel prices (21).

Yields fell by 16% in April 2015 compared to April 2014 while jet fuel prices plummeted by over 40% during the same period. Fuel hedging may partially explain why yields have not reacted to lower fuel prices. Given the lower cost of jet fuel, falling cargo yields will be less harmful to profitability in 2015. Cargo airlines in the US are showing signs of improved profitability (22). Although, cautious sentiments prevail, as IATA survey of heads of cargo shows dampened confidence (23).

19. Cargo only and belly hold yield performance



20. Air Freight Yields (US\$ per kilo)





21. Jet Fuel and Crude Oil Price (US\$/barrel)

Source: Platts, Oanda, DigitalLook





23. Profitability of US Cargo Only Airlines



Source: IATA Business Confidence

Air Freight Routes and Direction

Table 1. International Freight Volume Growth by Route Area (So	ource: IATA statistics)
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	% Growth in Freight Tonnes, year-on-year						
Route Area	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	
Africa - Europe	10.6%	8.2%	6.3%	8.4%	1.3%	6.8%	
Africa - Far East	8.4%	20.6%	-0.9%	29.9%	5.0%	5.4%	
Africa - Middle East	5.2%	11.4%	15.9%	15.2%	12.5%	0.2%	
Central America / Caribbean -	-16.1%	-14.6%	-7.2%	-1.1%	11.5%	-3.9%	
Europe - Central America /	2.1%	1.7%	-3.3%	-6.2%	-1.2%	-7.3%	
Europe - Far East	-4.0%	-7.0%	-9.1%	2.1%	-10.4%	-8.6%	
Europe - Middle East	11.9%	4.3%	7.4%	9.2%	7.5%	12.5%	
Europe - North America	-0.1%	3.3%	0.0%	0.6%	-2.9%	0.1%	
Europe - South America	20.2%	4.6%	3.1%	-3.8%	4.4%	0.9%	
Far East - North America	7.0%	13.0%	11.9%	33.0%	10.4%	11.2%	
Far East - Southwest Pacific	6.4%	8.7%	11.9%	13.4%	3.7%	8.4%	
Middle East - Far East	6.7%	4.4%	8.6%	20.5%	-0.6%	7.9%	
Middle East - North America	55.5%	57.1%	31.3%	44.9%	35.1%	30.4%	
North America - Central America	-6.1%	52.9%	44.4%	0.3%	-5.6%	-12.4%	
North America - South America	-6.1%	-2.0%	-8.0%	-7.9%	-9.3%	-3.4%	
North / South America -	2.7%	17.4%	11.1%	14.9%	15.5%	11.7%	
Within Central America	8.8%	5.6%	13.2%	10.4%	15.0%	10.5%	
Within Europe	-8.5%	-3.5%	-13.6%	-14.6%	-9.5%	-5.4%	
With Far East	4.5%	3.1%	1.7%	11.0%	-5.4%	1.2%	
Within South America	2.1%	-11.7%	2.7%	0.9%	-10.1%	2.5%	

Table 2. Outbound CASS Market Revenues (incl. fuel and other surcharges)

	US\$m	% Growth in Air Freight Revenues, year-on-year					
Origin Region	Q1 2015	2013 Q4	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2015 Q1
Africa	105	-1%	6%	-5%	-4%	11%	15%
Asia Pacific	1731	-8%	-4%	7%	14%	3%	17%
Europe	2308	6%	6%	7%	3%	-6%	-21%
Latin America & The Caribbean	329	-2%	0%	1%	6%	5%	-4%
Middle East & North Africa	230	14%	8%	9%	16%	6%	3%
North Asia	984	21%	21%	23%	17%	6%	-4%
North Atlantic & North America	1435	-4%	-2%	2%	4%	1%	-1%

Table 3. Inbound CASS Market Revenues (incl. fuel and other surcharges)

	US\$m	% Growth in Air Freight Revenues, year-on-year					
Destination Region	Q1 2015	2013 Q4	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2015 Q1
Africa	377	-3%	-1%	7%	11.1%	8%	-10%
Asia Pacific	1611	2%	4%	5%	5.9%	0.1%	-11.0%
Europe	1517	8%	7%	9%	8.7%	-2%	-10%
Latin America & The Caribbean	639	-2%	-3%	12%	-7.7%	-1%	-15%
Middle East & North Africa	555	4%	6%	-7%	8.8%	1%	-8%
North Asia	664	2%	3%	15%	6.5%	-9%	-17%
North Atlantic & North America	1839	6%	10%	5%	19.8%	20%	21%

Glossary

- ACI: Airports Council International
- → AFTK: Available Freight Tonne Kilometers
- ECB: European Central Bank
- EIU: Economist Intelligence Unit
- CASS: Cargo Accounts Settlement System
- FT: Financial Times
- FTK: Freight Tonne Kilometers
- → PMI: Purchasing Managers Index
- ✤ Netherlands CPB: Netherlands Bureau for Economic Policy Analysis
- ODS: Origin-Destination Statistics
- → SIA: Semiconductors Industry Association
- ➔ US BTS: US Bureau of Transportation Statistics
- M-o-m: Month over month percentage change
- Y-o-y: Year over year percentage change

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