

# CARGO CHARTBOOK

2016 Q2

## Key points

- “Brexit” vote is a materialization of a key downside risk, global economic growth is expected to decelerate in 2016
- Air cargo has continued to outperform global merchandized trade, but growth remains weak
- Sluggish trade outlook, “Brexit” aftermath and weak demand drivers suggest an impending halt in positive air freight momentum, but after short-term shocks abate strong consumer confidence and low oil prices can reenergize growth
- Flooding-in of capacity, weak trade, lower yields and rising fuel costs can lead to taking a bite out of cargo profitability

## Economic Outlook & Traffic Performance

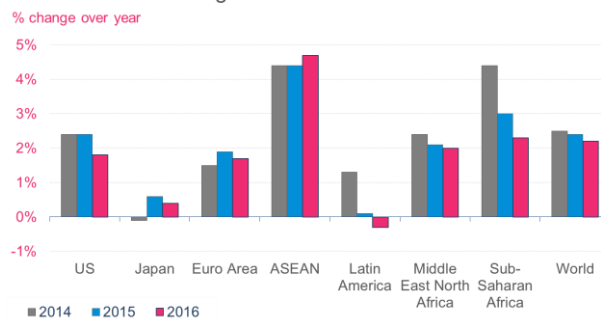
Prior to the “Brexit” shock, global economic growth was weak but positioned for a moderate improvement. Stronger than expected growth in the euro area and Japan in the first quarter combined with policy support in China and improved confidence in Brazil and Russia in the second quarter all pointed to a small acceleration in global growth. However, the “Brexit” vote has reversed expectations, with the global economy now poised to decelerate in 2016 compared to 2015, with forecasts being revised downward from what was already projected to be lackluster growth (1). Policy makers in Europe need to focus on an orderly way to deal with the “Brexit” vote repercussions so as to avoid larger scale adverse spillovers and reduce uncertainty.

The continued strength of the USD and overall weakness in the global economy has added headwinds to the US. However, underlying drivers in the US economy remain positive, with decreasing unemployment. The slow pick-up in nominal wage growth does not signal weakness as it is explained by lower inflationary pressures (2).

Air cargo market had a weak first quarter but recovered and grew in the second (3). June levels point to year-on-year growth of 4.3% in FTKs. Compared to 2015, year-to-June FTK volume growth was 0.5%. The lower ytd growth in 2016 understates performance as it is compared with a period in 2015 when demand for air cargo saw a one-off boost from the US west coast port backlog.

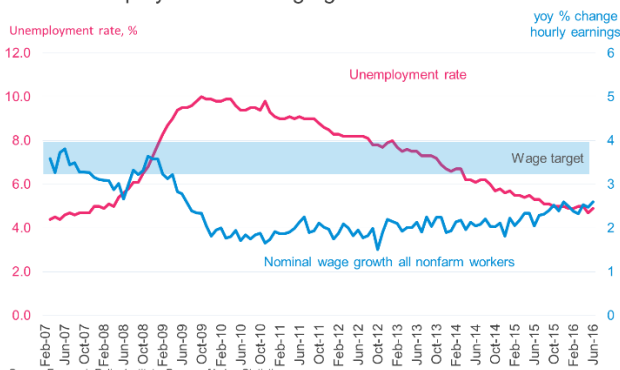
European carriers’ FTKs grew throughout the year, with traffic expanding in both quarters. The second quarter saw strong growth in trade by air on the Europe – Asia trade lane. Middle Eastern carriers explain the largest share (36%) of the Q2 growth, a clear indication of the increasing role this region’s carriers including in channeling flows to and from Asia (4). Asian and European carriers also explain a significant portion of the growth seen in Q2 representing 32% and 20% respectively. In contrast, growth has been elusive for Latin American carriers as regional trade and macroeconomic weakness has led to contraction in traffic in both quarters.

### 1. Forecast for GDP growth



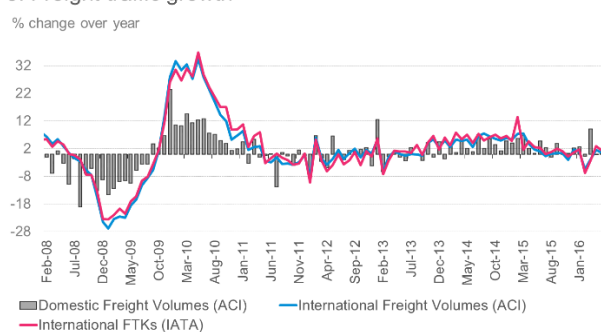
Source: EIU Viewswire

### 2. US unemployment and wage growth



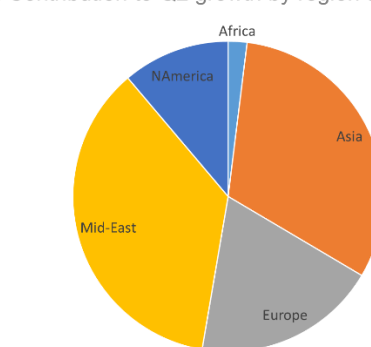
Source: Economic Policy Institute, Bureau of Labor Statistics

### 3. Freight traffic growth



Source: IATA, ACI

### 4. Contribution to Q2 growth by region of registration



Source: IATA

## Demand Environment and Drivers

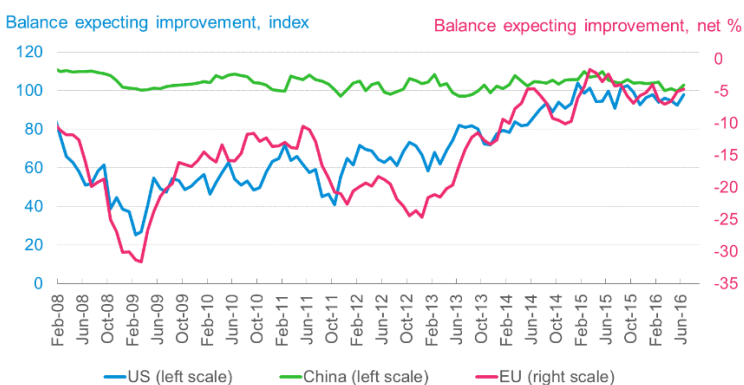
Global merchandized trade has continued to contract in 2016, the level in May was down by 1.9% compared to the January 2015 peak. In 2016, monthly trade levels have fallen perpetually every month, except for a slight month-on-month rise of 0.8% in February. The level in May was down by 1.6% compared to the 2015 year-end level. International FTK growth has fared better. In seasonally adjusted terms, air cargo had a weak first quarter with the market shrinking by 1.6% at the end of March compared to the 2015 year end level. In the second quarter it recovered and grew, the level in May was up by 1.7% and 2.2% in June compared to the 2015 year-end level (5).

The weaker growth of total merchandized trade is in part explained by particularly poor performance of bulk commodities/heavy industry. The World Trade Outlook Indicator (WTOI) developed by the WTO to shed light on the trajectory of trade relative to recent trends, suggests growth will remain sluggish into the third quarter (6).

Global PMI for export orders have recovered somewhat since the significant dip in February (7). The improving trend, although still weak, is a positive development for air freight. However, these figures do not reflect the materialization of the “Brexit” risk and should be treated with caution. The decrease in semi-conductor shipments points to weaker demand drivers for air freighted commodities in the short term (8). The confluence of a sluggish world trade outlook, “Brexit” aftermath and weak demand drivers suggest that the positive momentum observed in FTKs over the past three months may be paused.

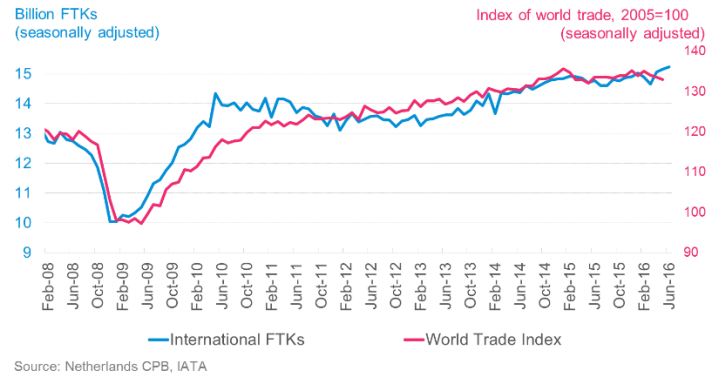
However, consumer confidence has continued to improve over the last quarter and remains strong (9), although it remains to be seen if it will be adversely impacted in the short-term from the “Brexit” shock. Strength in consumer confidence and prospects for favorable lagged impact of lower oil prices are factors that can reenergize growth in the global economy.

### 9. Consumer confidence



Source: DatasStream

### 5. World trade in goods and air FTKs



Source: Netherlands CPB, IATA

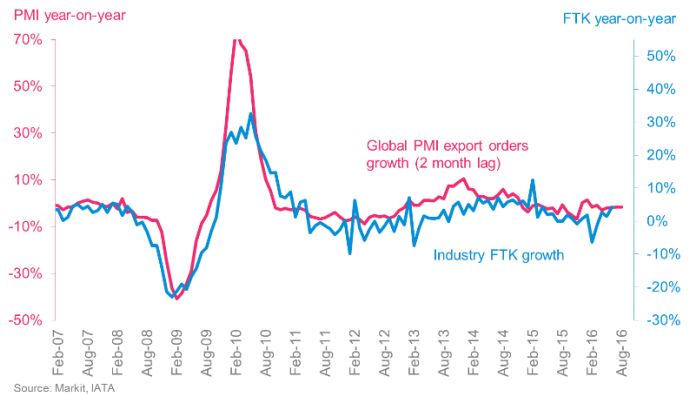
### 6. World Trade Outlook Indicator

(Index, trend = 100)



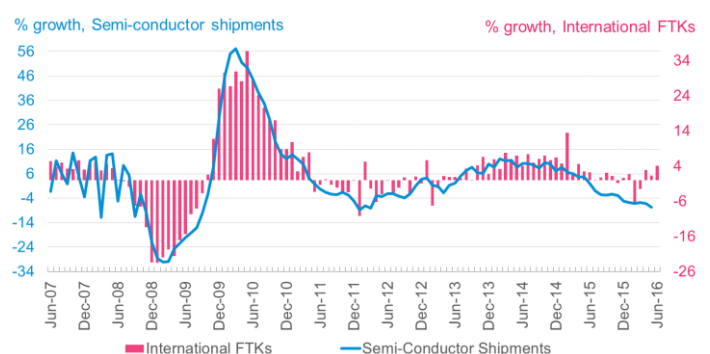
Source: World Trade Organization

### 7. Global export orders and air freight



Source: Markit, IATA

### 8. Semi-conductor shipments & air freight



Source: IATA, SIA

## Capacity and Competition

Deliveries have generally outpaced retirements, meaning that the cumulative payload capacity of widebody freighters available in storage and in-service has gradually increased.

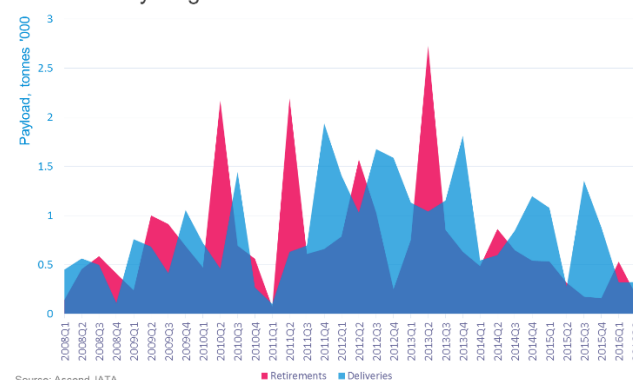
Since 2008, new widebody freighter deliveries have outpaced retirements by 17% in terms of payload capacity. About three fifths of the retired widebody freighter payload is from the Boeing 747 series (mostly 200s) with another fifth explained by retirements of DC-10s and MD-11s. Boeing leads new deliveries with over 90% of new widebody payload capacity - 747-800s, 767s and 777s are the most popular aircraft. With the drop in fuel price that started in Q2 2014, the pace of retirements has slowed faster than the entry of new freighter deliveries. Over the past year deliveries of widebody payload capacity have outpaced retirements nearly 3 to 1 (10).

In-service payload capacity for widebody freighters increased for the fifth consecutive quarter. The increase is explained by a reduction of in-storage capacity and delivery of new aircraft. However, payload capacity available in storage remains high at 17.5% of in-service payload capacity, significantly above pre-crisis levels of Q1 2007 when it was 10.5% despite an environment of higher fuel prices in 2007. In-service widebody freighter payload capacity in 2016Q2 grew by 4.1% compared to 2015Q2 (11). In contrast, FTK growth over the same period was just 2.8%.

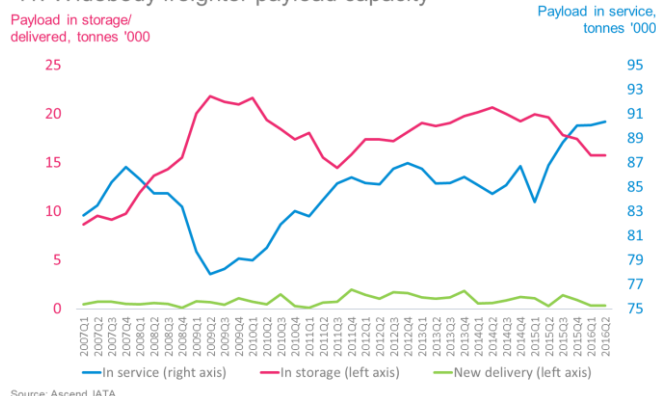
The capacity challenge is further exacerbated by the strong growth in demand in the passenger business (12). Deliveries of wide-body passenger aircraft have led to the addition of significant levels of hull capacity. On some trade lanes this has had a significant impact on dynamics in the air cargo market.

AFTKs grew 5.0% in 2016Q2 compared to 2015Q2 outpacing FTKs growth of 2.8%. Increasing utilization of large freighter aircraft is a contributing factor to higher availability of capacity. Freight aircraft utilization has improved significantly from the recent lows reached in September 2013. This points to another means through which capacity has been boosted in the current market environment (13). Airlines are increasing using freighters to balance the cargo flows with passenger demand in their networks. This in part explains the observed step reduction in average utilization levels of large freighter aircraft from the time period preceding the GFC.

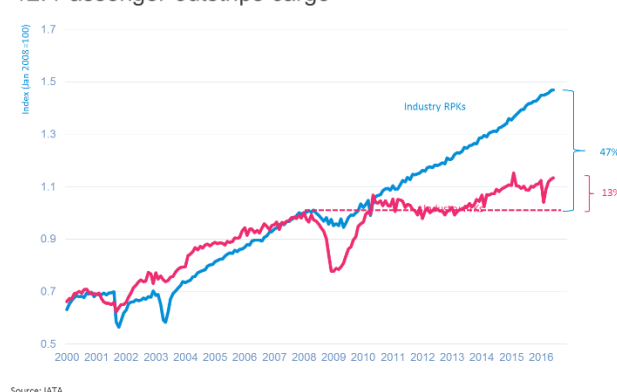
10. Widebody freighter deliveries and retirements



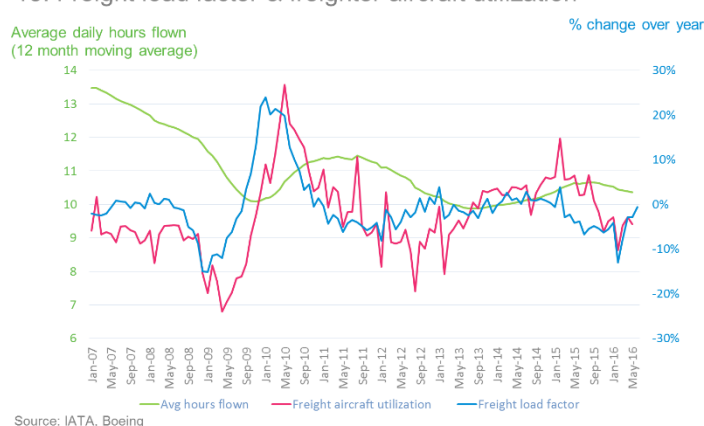
11. Widebody freighter payload capacity



12. Passenger outstrips cargo



13. Freight load factor & freighter aircraft utilization



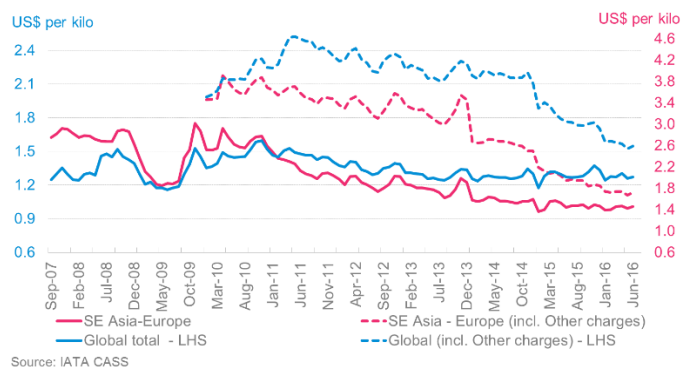
## Revenues, costs and profits

Downward yield trajectory started to accelerate in the second half of 2014 as lower fuel prices were sustained (14). At an industry level total international air cargo yields have continued to deteriorate in 2016 but the latest deterioration is likely to be particularly damaging to profitability.

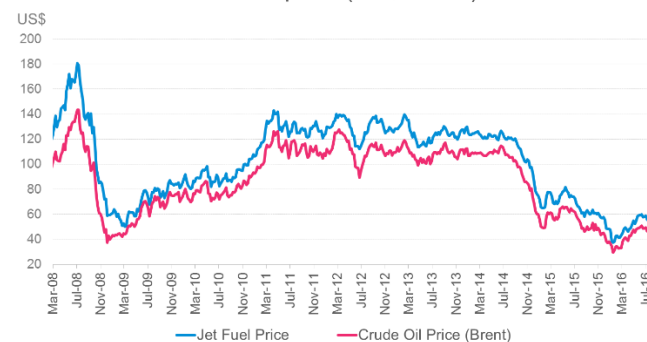
Seasonal variability in yield performance and fuel price developments do not explain the worsening yield environment. Once seasonal factors are adjusted for, yield erosion since Jan has been between 5-6%. This comes at a time of increasing fuel prices over this period, with average monthly fuel prices having risen every month in 2016. Average fuel prices were 43% higher in June compared to Jan, representing a significant increase albeit from a relatively low base (15).

Although rising fuel prices have abated in July, a challenging yield environment is expected to persist. Flooding-in of capacity (discussed in previous section) amid a weak global trade backdrop can lead to taking a bite out of air cargo profitability. IATA survey of heads of cargo confirms concerns over yield performance for the year ahead (16).

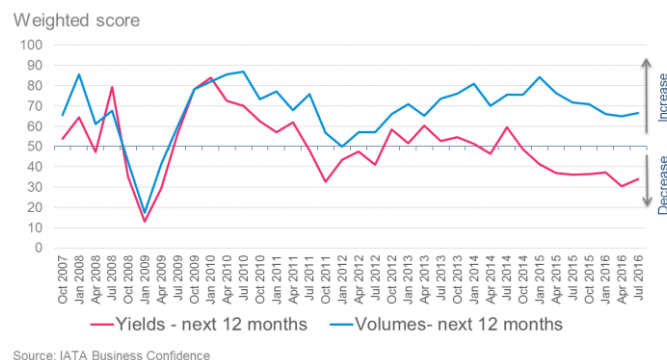
14. Air freight yield (US\$ per kilo)



15. Jet fuel and crude oil price (US\$/barrel)



16. IATA survey of heads of cargo



## Air Freight Routes and Direction

Table 1. International Freight Volume Growth by Route Area (Source: IATA statistics)

Route Area	% Growth in Freight Tonnes, year-on-year					
	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16
Africa - Europe	-3.6%	-7.0%	0.8%	-5.9%	-4.7%	-10.4%
Africa - Asia	-1.3%	17.7%	5.0%	19.8%	18.0%	18.1%
Africa - Middle East	8.2%	5.5%	2.0%	8.2%	15.5%	4.5%
Central America / Caribbean South	11.9%	13.1%	7.4%	1.0%	3.2%	-7.6%
Europe - Central America Caribbean	-6.6%	3.3%	-2.6%	-5.4%	5.0%	-0.7%
Europe - Asia	-1.7%	2.1%	-8.0%	-4.7%	5.9%	1.5%
Europe - Middle East	10.7%	2.3%	1.1%	-3.9%	7.8%	2.7%
Europe - North America	-1.8%	0.4%	-2.0%	-5.1%	1.1%	-1.7%
Europe - South America	-13.2%	-5.2%	-5.5%	-13.3%	5.8%	3.6%
Asia - North America	-4.4%	-8.5%	-20.5%	-11.7%	-4.7%	-3.2%
Asia - Southwest Pacific	8.2%	6.5%	-8.5%	3.4%	4.4%	-2.5%
Middle East - Asia	4.1%	9.9%	1.0%	6.1%	7.8%	3.3%
Middle East - North America	13.0%	38.6%	24.8%	10.1%	21.4%	20.1%
North America - Central America /	19.4%	17.8%	4.2%	5.3%	7.1%	-4.2%
North America - South America	-5.9%	-3.7%	-1.7%	-6.8%	-11.2%	-13.2%
North / South America Southwest	17.9%	19.0%	6.7%	-3.9%	14.2%	10.9%
Within Central America	4.1%	-6.2%	-3.0%	-7.8%	4.0%	-11.1%
Within Europe	0.4%	13.0%	9.1%	13.9%	13.8%	8.8%
Within Asia	-1.2%	1.4%	-7.8%	5.1%	4.6%	4.1%
Within South America	-12.2%	-19.7%	-14.6%	-16.9%	-18.6%	-23.9%

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

Origin Region	US\$m 2016 Q2	% Growth in Air Freight Revenues, year-on-year					
		2015 Q1	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2
Africa	94	15.3%	8.9%	4.4%	-7.6%	-3.9%	-4.1%
Asia Pacific	1372	16.6%	-8.2%	-13.2%	-16.1%	-27.5%	-5.6%
Europe	2154	-20.8%	-21.5%	-20.1%	-16.6%	-9.1%	-5.7%
Latin America & The Caribbean	358	-4.3%	-11.6%	-9.0%	-10.5%	-3.5%	-5.0%
Middle East & North Africa	133	3.1%	-4.1%	-14.8%	-10.1%	-7.0%	-4.5%
North Asia	1147	-3.9%	-11.2%	-14.0%	-19.3%	-26.0%	-22.4%
North Atlantic & North America	964	-1.4%	-8.8%	-16.4%	-20.0%	-23.9%	-18.0%

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

Destination Region	US\$m 2016 Q2	% Growth in Air Freight Revenues, year-on-year					
		2015 Q1	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2
Africa	315	8.0%	-9.9%	-16.8%	-21.2%	-22.7%	-20.1%
Asia Pacific	1418	0.1%	-11.0%	-13.5%	-17.1%	-17.6%	-15.2%
Europe	1314	-2.5%	-10.2%	-15.1%	-14.4%	-14.7%	-16.1%
Latin America & The Caribbean	534	-1.1%	-14.9%	-17.6%	-17.2%	-19.9%	-19.2%
Middle East & North Africa	565	0.6%	-8.4%	-9.7%	-6.6%	-5.3%	-3.4%
North Asia	641	-8.7%	-16.5%	-21.6%	-22.1%	-15.4%	-10.8%
North Atlantic & North America	1352	19.7%	21.1%	-5.6%	-13.8%	-19.5%	-30.8%



## Glossary

- ACI: Airports Council International
- AFTK: Available Freight Tonne Kilometers
- ECB: European Central Bank
- EIU: Economist Intelligence Unit
- CASS: Cargo Accounts Settlement System
- FTK: Freight Tonne Kilometers
- GFC: Global Financial Crisis
- 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
- YtD: Year to date



28<sup>th</sup> July 2016

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