





Airline Current Business Environment Alex Heiter

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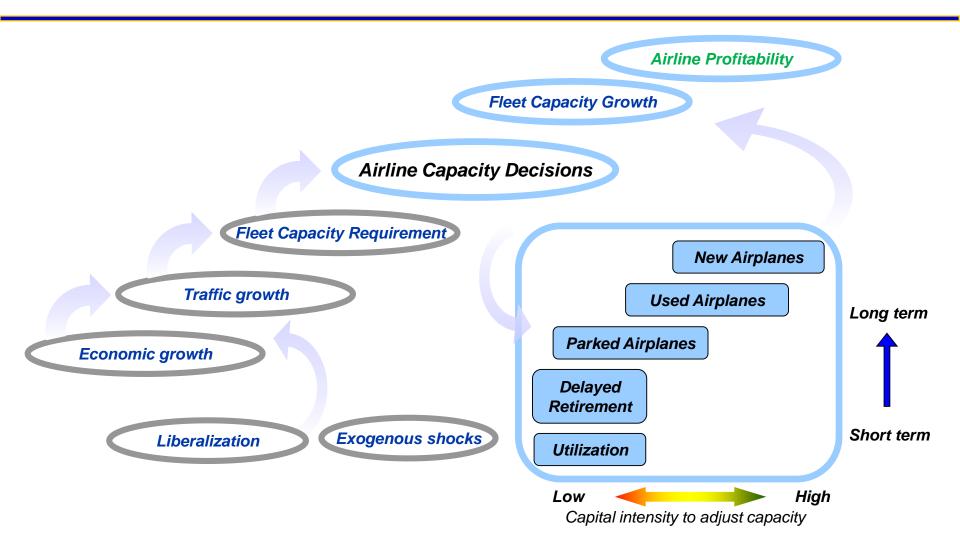
Air Transportation Management

M.Sc. Program

Network, Fleet and Schedule
Strategic Planning

Module 2: 28 March 2016

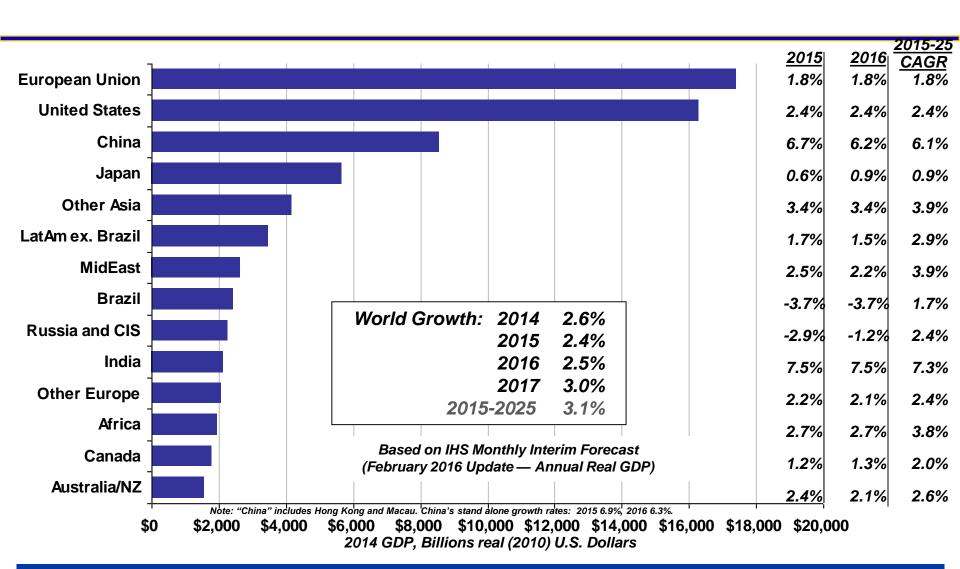
The underlying dynamics of our industry



World Business Environment Key Developments

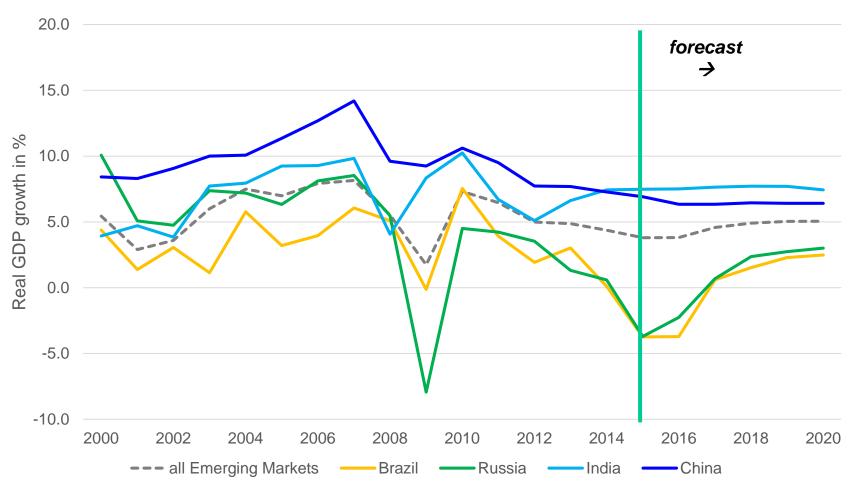
Indicator	2015 2016 2	2017	Updates
Economic environment (GDP growth, Trade volumes, Oil prices, Exchange rates, Financial markets)			Global GDP growth below trend 2016 but stronger service sectors support traffic China transition continues: industry weaker, consumption/services stronger US Dollar strength impacting travel patterns, airline financials Brent oil at ~\$35/bbl, volatile; mid-term (5+ year) outlooks for \$80+/bbl Financial market volatility potential risk to consumer sentiment
Geopolitical environment (Gov't actions, Regional conflict)		:	Export-Import Bank board quorum unlikely in the near term Iran nuclear deal implemented but hurdles remain U.S. and Cuba agree to restore scheduled flights
Passenger demand (Traffic volumes, Yields)			Traffic up 5.4% in December, +6.5% in 2015 (IATA) Outlook for continued at/above long-term average
Passenger Capacity (Airline schedules, Parked fleet, Utilization rates, Load factors)		:	Global capacity growth stable at ~6%, regional variation Load factors, utilization near/at record highs Parked fleet stable, slightly up due to Transaero
Air cargo demand (Traffic volumes, Yields)		:	Traffic up 0.8% in December, +2.2% in 2015 (IATA) Outlook: growth in 2016 but below long-term average Significant variation between regions
Air cargo capacity (Parked fleet, Utilization rates, Load factors)		:	Large freighter utilization at/near prior peaks Parked current-generation airplanes
Airline financials (Industry profitability, Airline performance, Airplane financing)			Airlines managing economic uncertainty, volatile fuel prices Airline industry net margins doubled to 4.6% in 2015; 2016 forecast ~5% North America over half industry profitability

World Economic Outlook



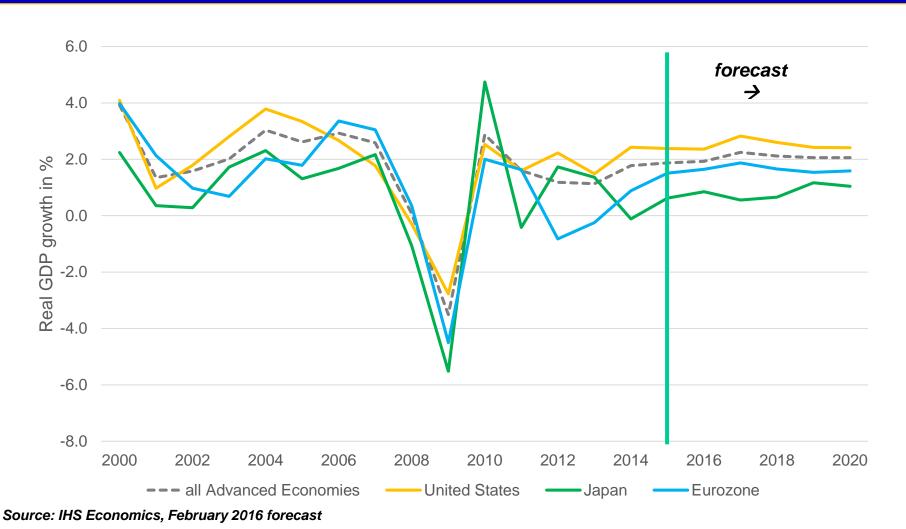
Growth to remain muted in 2016, acceleration in 2017

Emerging Markets Real GDP Growth Outlook



Source: IHS Economics, February 2016 forecast

Advanced Economies Real GDP Growth Outlook



Economic growth slightly accelerating in Advanced Economies

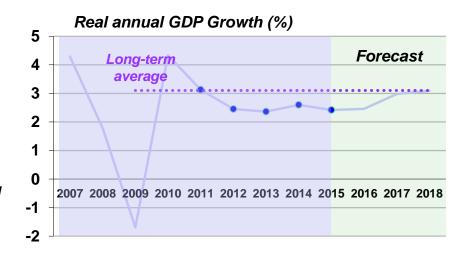
World Economic Outlook



GDP growth slightly up in 2016
Main drivers: oil, monetary
stimulus, U.S. economy
Risks: financial markets



Advanced economies improving Emerging markets mixed





Economies leaving Great Recession era Outlook supports traffic growth Uncertainty remains elevated



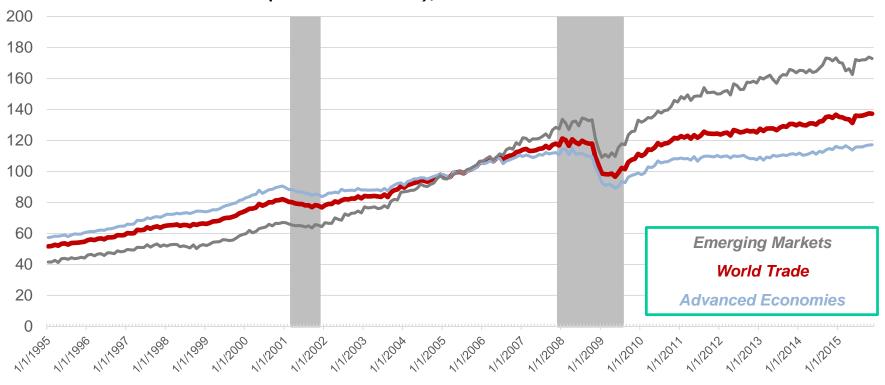
Watch items:
Geopolitical hotspots
Oil/FX volatility
China spillovers
Success of monetary policy

Source: IHS (February 2016 Interim Forecast)

Global economic growth slow in 2016, accelerating in 2017

World Trade



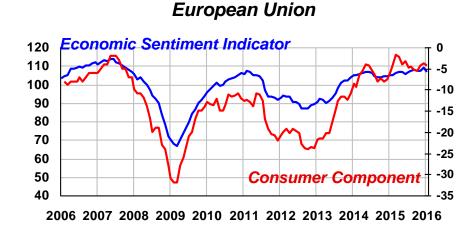


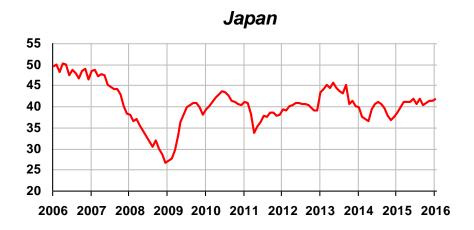
Source: Netherlands Bureau for Economic Policy Analysis (http://www.cpb.nl/eng/research/sector2/data/trademonitor.html)

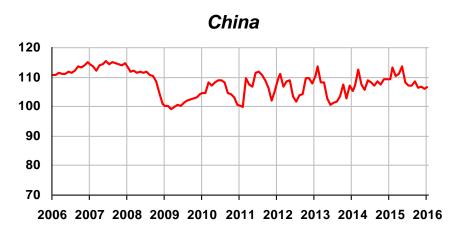
International trade weakness since start of year

Consumer Confidence



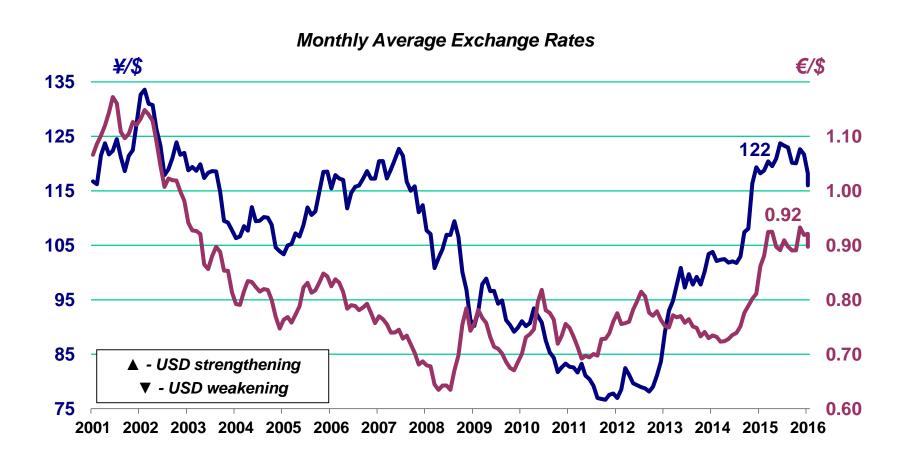






Confidence around decade-high in US, improving in EU

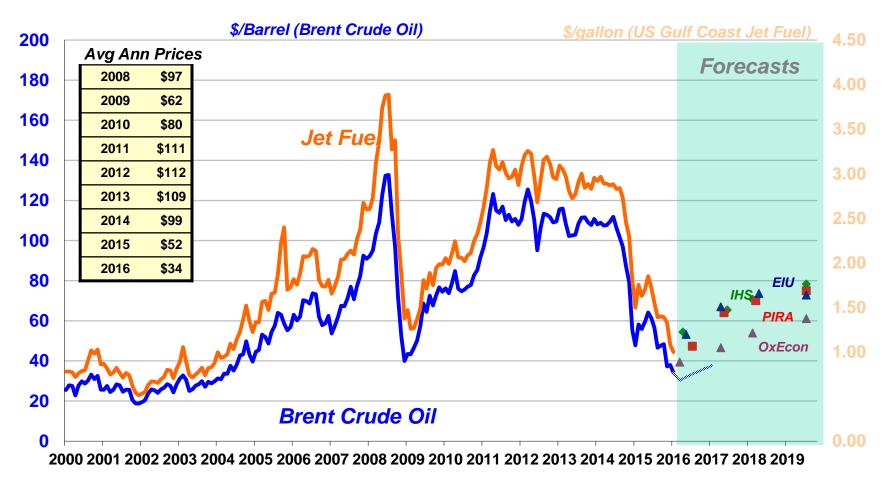
Exchange Rates



Source: Pacific Exchange Rate Service; Last data point for monthly average: February 2016

U.S. dollar strength continues

Oil and jet fuel prices

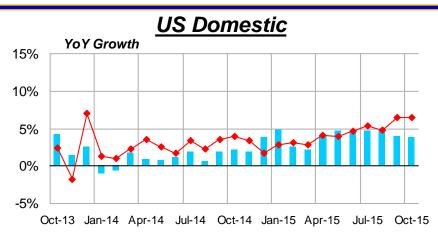


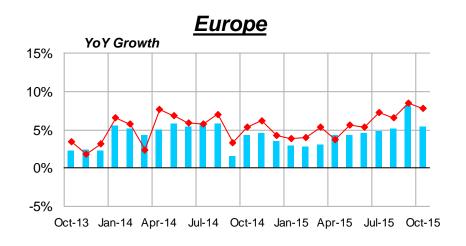
Oil price forecasts are nominal annual average prices for 2015-18 Historical data source: EIA

Volatility returns, mid-term price outlooks \$70-80/bbl

World Passenger Traffic and Capacity





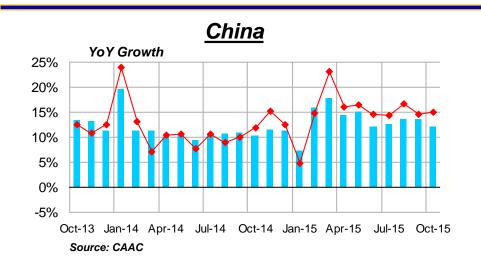


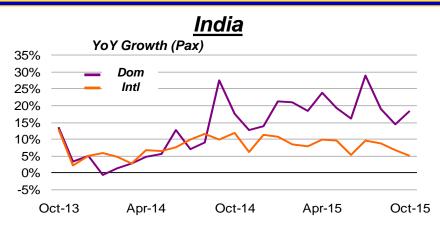


Source: ATA, AEA, AAPA, IATA, ALTA, CAAC, airline reports, Boeing market analysis

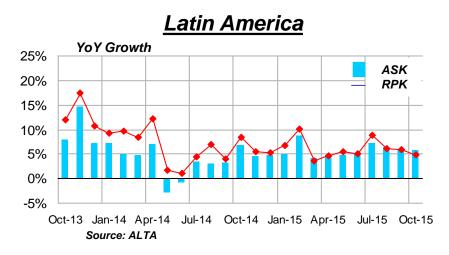
All major regions performing well in October

Emerging Market Traffic and Capacity

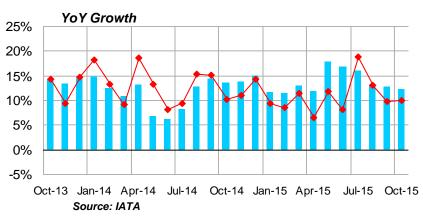




Source: Airports Authority of India



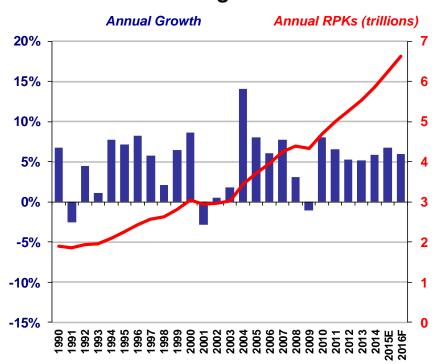
Middle East Int'l



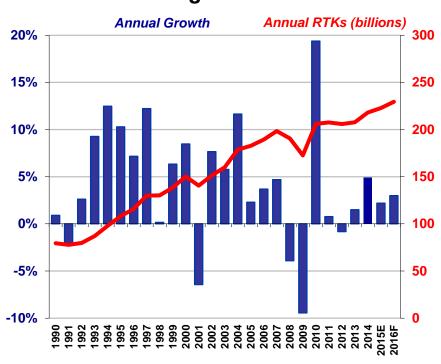
Strong performance in emerging markets but LatAm slowing

Near-term Traffic Outlook Passenger and Cargo

Passenger traffic

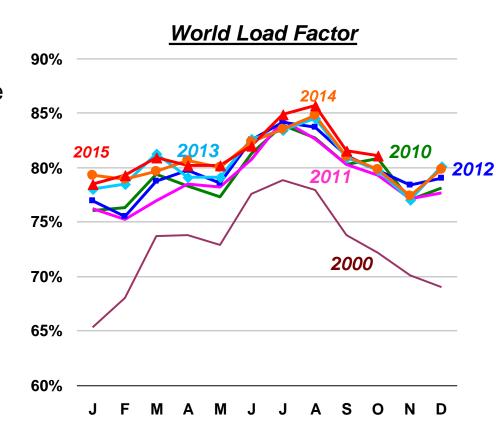


Air cargo traffic



Passenger Capacity

- Airlines adjusting capacity in response to demand, route profitability
- Load factors are at or near record highs throughout the year; March should just be an anomaly due to Easter timing
- Parked fleet typical seasonal trends
- Utilization near peaks, single aisle more seasonal

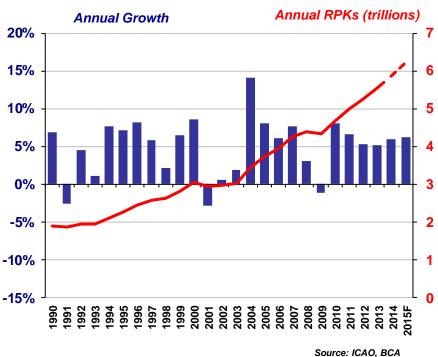


Global passenger capacity growing broadly in balance with traffic

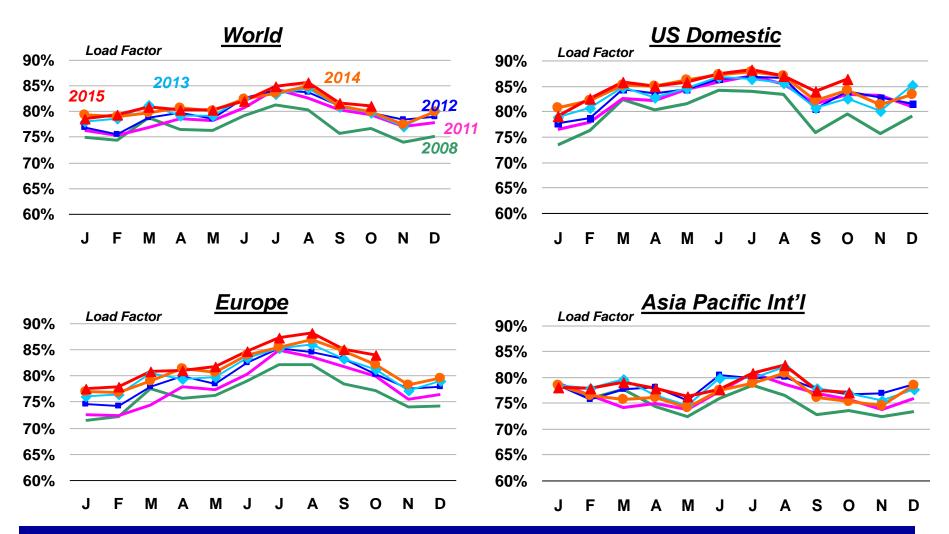
Passenger demand

- Emerging markets GDP, middle class growth
- New airline business models
- Demographics support leisure travel
- Air travel relative affordability
- Business travel revenue focus, travel intensive sectors outperforming

Passenger Traffic



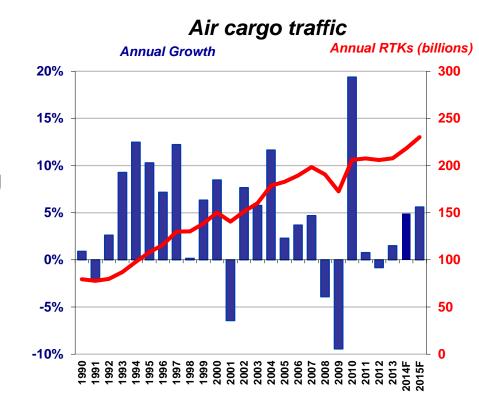
Passenger Load Factors



Record high load factors from traffic growth, capacity discipline

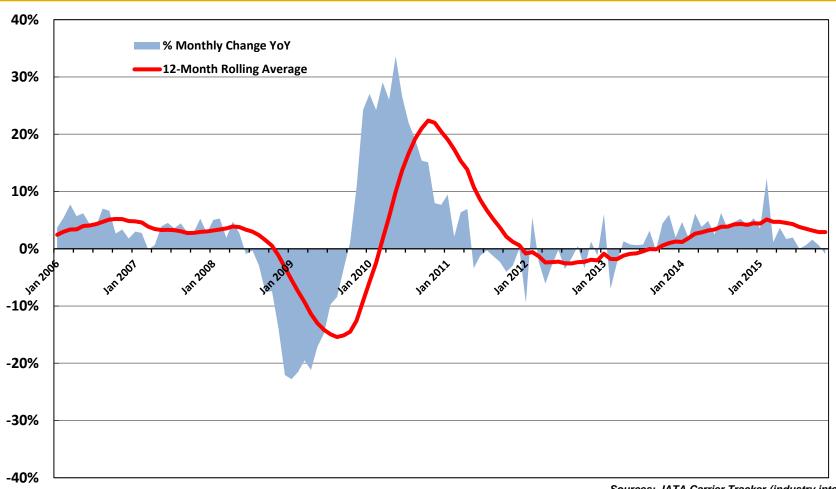
Air cargo demand

- Traffic recovery began 2Q2013
- Significant regional variation
- Large freighter utilization recovering
- Load factors improving, yields pressure easing



Near-term cargo market challenges, long-term growth market

World air cargo traffic recovering since mid-2013

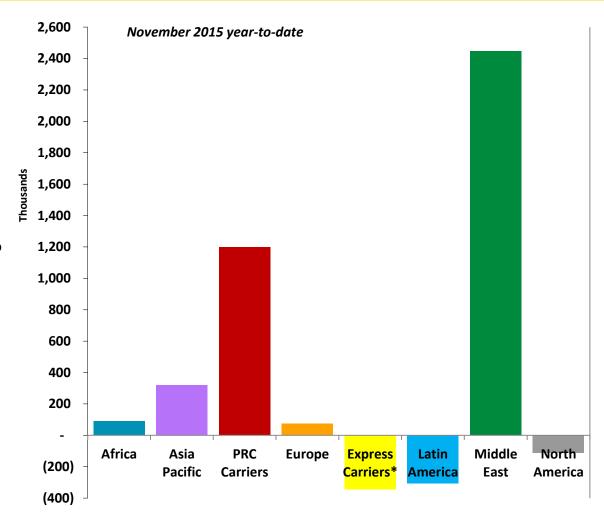


Sources: IATA Carrier Tracker (industry international scheduled freight) and A4A US domestic cargo traffic.

Air cargo traffic down -0.9% in November 2015 YoY, up 2.6% YTD

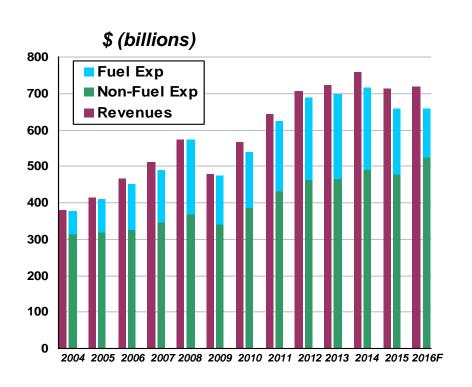
The strength of the air cargo recovery varies by region of airline domicile and/or business model

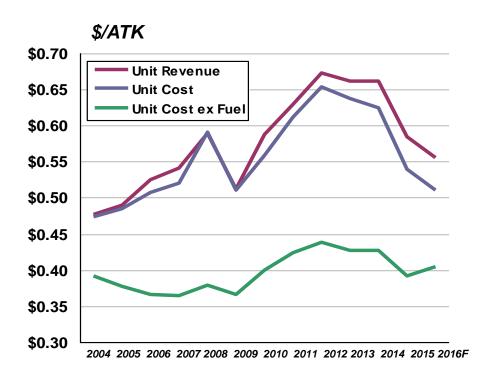
- Air cargo traffic up 2.6% YTD
- 12-month rolling average shows 2.9% increase
- 1Q was stronger with 5.1% growth, 2Q increased
 2.5%, while 3Q was slower at 0.7% growth
- 4.5% growth in 2014



Sources: IATA Carrier Tracker (Industry international scheduled freight), A4A US domestic cargo traffic, and Boeing analysis * Fedex and UPS freighter flown statistics only per A4A

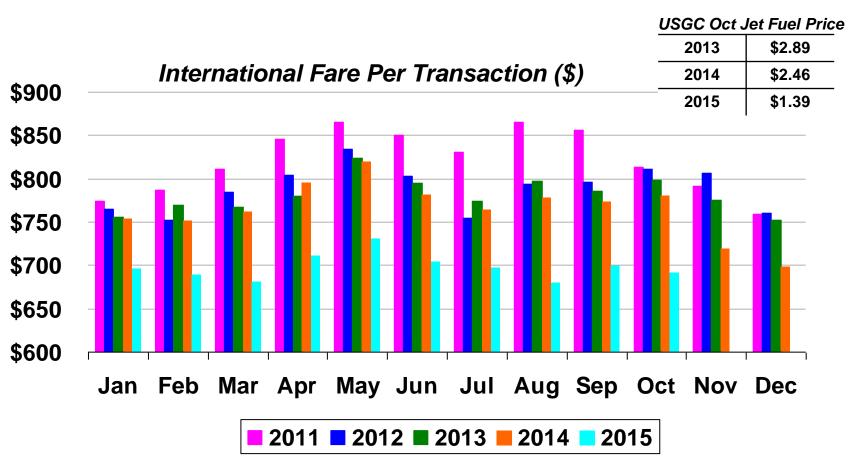
Airline revenues and costs





Source: IATA, December 2015 Financial Forecast & BCA Market Analysis

International Fare Development

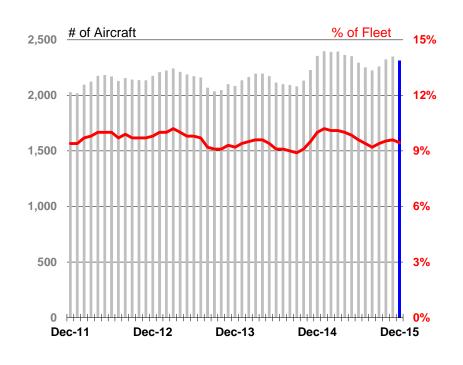


Data source: ARC Settlements and Operations statistics http://www.arccorp.com/news/sales-document-statistics-archive.jsp

Commercial parked fleet trends December 2015

Total Parked Fleet

In-Production Parked Fleet



of Aircraft % of Fleet 450 3.0% 400 2.5% 350 300 2.0% 250 1.5% 200 150 1.0% 100 0.5% 50 0.0% Dec-11 Dec-12 Dec-13 Dec-14 Dec-15

AC Types Included: All Western-built Jets > 90 seats

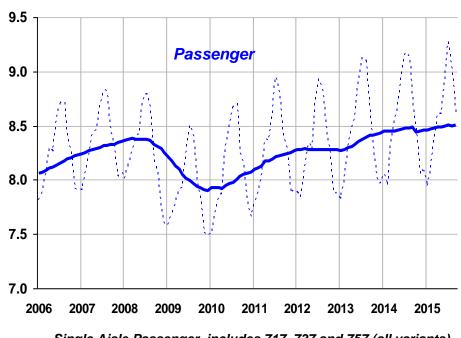
Airplane types included: 737NG, 747-8, 767, 777, 787, A320 Family, A330, A350 and A380

2,313 airplanes parked at year-end 2015 9.45% of total fleet and 2.7% of in-production fleet parked

Airplane Utilization Trends (thru September 2015)

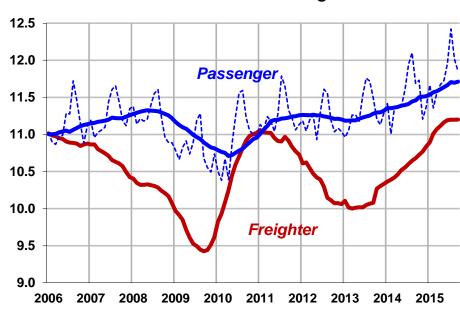
Flight Hours Per Day (12-month moving average)

Single Aisle Passenger



Single Aisle Passenger includes 717, 737 and 757 (all variants)

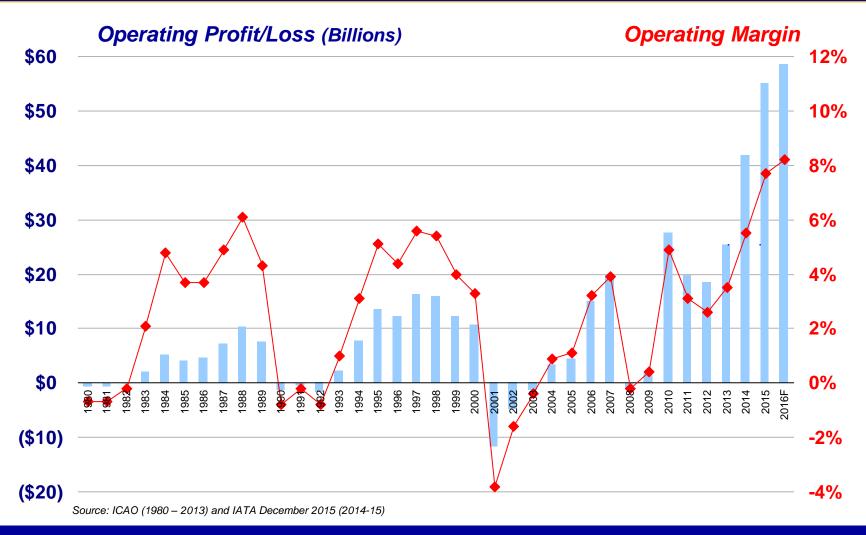
Twin Aisle Pax and Freighter



Twin Aisle passenger Large Freighters include 777Fs and 747 Fs (-400Fs and 8Fs)

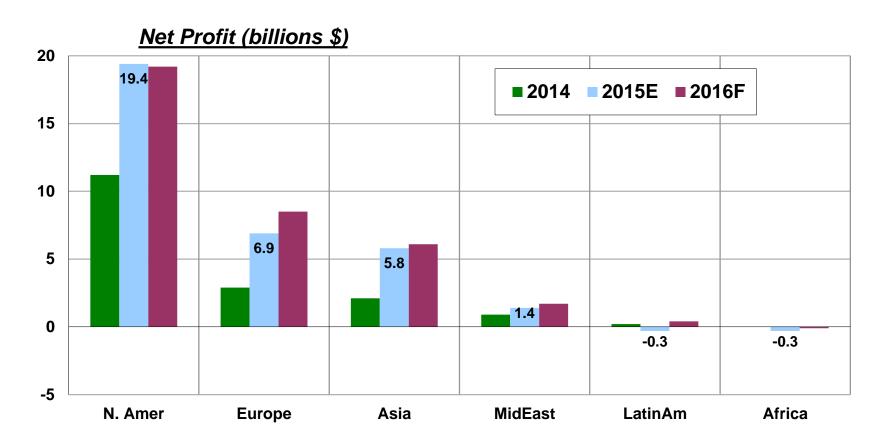
Passenger and freighter utilization stable at record levels

Airline industry operating profitability



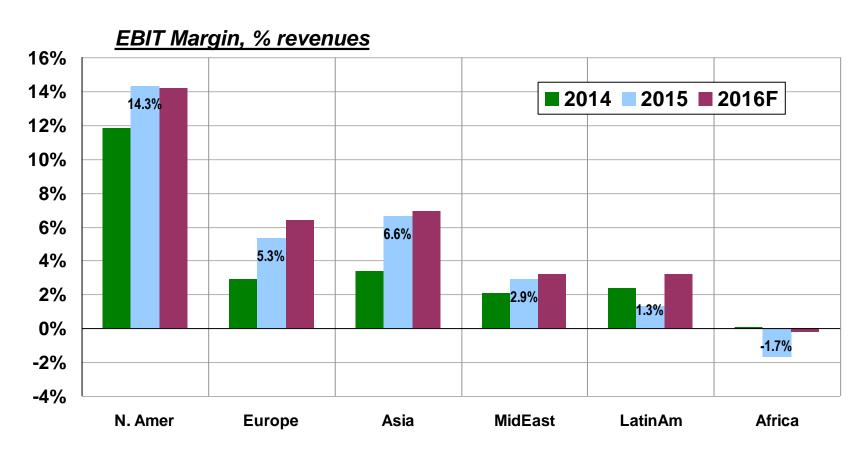
Airlines managing economic uncertainty, volatile fuel prices

Regional profitability outlook



Source: IATA, December 2015

Regional profitability



Source: IATA, December 2015

Business Environment – Near-term

- Baseline outlook for improving global economic 2016+
- High oil price volatility/uncertainty returns, price outlook for recovery into mid-term
- Global passenger traffic growing at/above long-term average rate; emerging markets leading
- Airlines adding capacity in response to traffic growth; adjusting networks with focus on profitability
- Air cargo traffic cyclical downturn after strong 2014, expected to recover in 2016, capacity metrics up
- Airline profit outlook very good due to low fuel prices, North American airlines leading
- Airlines restructuring networks, fleets, partnerships, and driving down controllable costs

Industry is healthy despite ever-present challenges