Airline financial performance

30 March 2017

Brian Pearce
Chief Economist, IATA
www.iata.org/economics
# The air transport paradox

<table>
<thead>
<tr>
<th>Revenue growth</th>
<th>ROIC excluding goodwill (average)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Industry total for each year, 2004 - 13 CAGR, percent</strong></td>
<td><strong>Industry aggregate, 2004 - 13 simple average, percent</strong></td>
</tr>
<tr>
<td>Healthcare equipment and services</td>
<td>Software and services</td>
</tr>
<tr>
<td>Rail</td>
<td>Pharma, biotech, and life sciences</td>
</tr>
<tr>
<td><strong>Airlines</strong></td>
<td>6.1</td>
</tr>
<tr>
<td>Energy</td>
<td>Household and personal</td>
</tr>
<tr>
<td>Tech hardware and equipment</td>
<td>Healthcare equipment and services</td>
</tr>
<tr>
<td>Materials</td>
<td>Media</td>
</tr>
<tr>
<td>Software and services</td>
<td>Food, beverage, and tobacco</td>
</tr>
<tr>
<td>Utilities</td>
<td>Tech hardware and equipment</td>
</tr>
<tr>
<td>Freight forwarding</td>
<td>Communications and professional services</td>
</tr>
<tr>
<td>Capital goods</td>
<td>Semiconductors and equipment</td>
</tr>
<tr>
<td><strong>Economy</strong></td>
<td>Telecom</td>
</tr>
<tr>
<td>Pharma, biotech, and life sciences</td>
<td>Postal/CEP</td>
</tr>
<tr>
<td>Retailing</td>
<td>Consumer services</td>
</tr>
<tr>
<td>Food, beverage, and tobacco</td>
<td>Retailing</td>
</tr>
<tr>
<td>Food and staples retail</td>
<td>Consumer durables and apparel</td>
</tr>
<tr>
<td>Transportation &amp; logistics</td>
<td>Economy</td>
</tr>
<tr>
<td>Trucking</td>
<td>Capital goods</td>
</tr>
<tr>
<td>Contract logistics</td>
<td>Bus</td>
</tr>
<tr>
<td>Household and personal</td>
<td>Food and staples retail</td>
</tr>
<tr>
<td>Telecom</td>
<td>Energy</td>
</tr>
<tr>
<td>Shipping</td>
<td>Materials</td>
</tr>
<tr>
<td>Semiconductors and equipment</td>
<td>Contract logistics</td>
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<tr>
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<td>Consumer services</td>
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<td>Consumer durables and apparel</td>
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<tr>
<td>Bus</td>
<td>Transportation &amp; logistics</td>
</tr>
<tr>
<td>Automobiles and components</td>
<td>Automobiles and components</td>
</tr>
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<td>Trucking</td>
</tr>
<tr>
<td>Media</td>
<td>Utilities</td>
</tr>
</tbody>
</table>

1 Real revenue growth, 2004 - 13 CAGR inflation adjusted, median for industry
2 ROIC after tax, excluding goodwill; excludes outliers

Source: McKinsey presentation to IATA
Still very much a growth story

Sources: IATA Economics, IATA Monthly Statistics, Markit
Though much variation by travel market

Sources: IATA Economics, IATA Monthly Statistics by Route

*Note: int’l routes data are for January; domestic market data are for February

IATA Economics  www.iata.org/economics
Long-term expansion even in gloomy macro scenario

Source: IATA/Tourism Economics Air Passenger Forecasts, September 2016
Trip frequency still low in many important markets

Source: IATA/Tourism Economics Air Passenger Forecasts, September 2016
Large potential in populous but (currently) poor markets

Airline passenger trips and GDP per capita

Source: IATA Economics using data from PaxIS+ and Oxford Economics

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Demographics strong in some key markets, adverse in others

Source: IATA/Tourism Economics Air Passenger Forecasts, September 2016
Scope for large price change in short-haul markets

Source: IATA PaxIS+
China largest increment, US remains important

Change in domestic O-D markets (millions, 2015-2035)

<table>
<thead>
<tr>
<th>Country</th>
<th>Change in Domestic O-D Markets</th>
<th>Corresponding CAGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>670</td>
<td>5.2%</td>
</tr>
<tr>
<td>United States</td>
<td>300</td>
<td>2.6%</td>
</tr>
<tr>
<td>India</td>
<td>250</td>
<td>6.7%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>150</td>
<td>3.5%</td>
</tr>
<tr>
<td>Vietnam</td>
<td>100</td>
<td>8.2%</td>
</tr>
<tr>
<td>Turkey</td>
<td>90</td>
<td>5.2%</td>
</tr>
<tr>
<td>Brazil</td>
<td>80</td>
<td>2.6%</td>
</tr>
<tr>
<td>Philippines</td>
<td>60</td>
<td>6.0%</td>
</tr>
<tr>
<td>Australia</td>
<td>50</td>
<td>3.0%</td>
</tr>
<tr>
<td>Mexico</td>
<td>40</td>
<td>4.2%</td>
</tr>
</tbody>
</table>

Source: IATA/Tourism Economics Air Passenger Forecasts, September 2016
Significant change in top-10 markets over next 20 years

Source: IATA/Tourism Economics Air Passenger Forecasts, September 2016
Centre of gravity of air travel shifting fast towards China

Source: IATA Economics using data from PaxIS+
The GFC precipitated one key divergence

Source: ICAO, IATA
Retreat from globalization

World GDP and cross-border trade growth

World trade growth

World GDP growth

Source: IMF World Economic Outlook and the World Trade Organization
Supply chains have been shortened

Index (Oct 2008=100)

World trade/IP ratio vs. measure of global supply chains

World trade/IP ratio

Ratio of foreign value added to domestic value added in world gross exports

Source: Netherlands CPB, UNCTAD
But growth has returned to cargo

Growth in industry FTKs

Global PMI new export orders component (adv. 2 months)

Implied PMI series if the index remains flat at its February 2017 level over the coming months

Sources: IATA Economics, IATA Monthly Statistics, Markit

Source: Markit, IATA Statistics
Despite sluggish world trade

Indices (Jan 2012=100, seasonally adjusted)

Global FTKs

World trade volumes

Ratio of global FTKs to world trade volumes

Sources: IATA Economics, IATA Monthly Statistics, CPB

Source: IATA Statistics, Netherlands CPB
Traffic accelerating ahead of capacity growth

Source: IATA using data from The Airline Analyst
Margin squeeze signs of easing?

Airline passenger yield (constant fx) and crude oil prices, indexed

Pax yield -8% => 0%

Oil price 44.6 => 55 $/b

Indexed to equal 100 in January 2011

Source: IATA using data from The Airline Analyst
Industry profitability declining but how fast?

Quarterly profile for airline industry operating profits (EBIT)

Operating margin
8.3% => 6.6%

Net profits
$39.6bn => $29.8bn

Source: IATA Economic Performance of the Airline Industry – end year 2016 report

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At last investors are getting a ‘normal’ return

Source: IATA Economic Performance of the Airline Industry, End-Year 2016 report

Return on capital invested in airlines
Cost of capital (WACC)
Return on capital (ROIC)

% of invested capital

Source: IATA Economic Performance of the Airline Industry, End-Year 2016 report
Ending decades of investor capital destruction (?)

Difference between investing in airlines and investing in similar assets elsewhere

Source: McKinsey, IATA
Other sectors do better

Return on capital across the air transport supply chain

Source: McKinsey for IATA
But this is not the main issue for airline earnings

Average yearly economic profit, USD billion, 2007-2014

<table>
<thead>
<tr>
<th>Sector</th>
<th>Estimate</th>
<th>Source: McKinsey for IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airlines</td>
<td>(19.4)</td>
<td></td>
</tr>
<tr>
<td>CRS GDS</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Travel Agents</td>
<td>0-2.0</td>
<td></td>
</tr>
<tr>
<td>Freight Forwarders</td>
<td>1.2</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>(16.7)</td>
<td></td>
</tr>
</tbody>
</table>

Source: McKinsey for IATA
Aircraft fuel efficiency has improved dramatically

Source: Lee

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But costs typically passed through to prices

Unit cost and the price of air transport

Source: ICAO, IATA
In fact prices have fallen further than costs

Breakeven and actual load factors

Source: IATA, ICAO
Consumers have been the major beneficiaries

Unique city-pairs and real transport costs

- Unique city pairs
- Real cost of air transport

Source: ICAO, Boeing, OAG, IATA
Structural change?

Breakeven and achieved weight load factor

Source: IATA Economic Performance of the Airline Industry – end year 2016 report
High fuel prices not always bad for airlines

Airline industry ROIC and jet fuel prices

Source: IATA, Platts

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Solid improvement in capital productivity

Airlines' operating or EBIT margin and capital productivity

Source: IATA Economic Performance of the Airline Industry – end year 2016 report
Very wide variety of business models

2015 ROIC = adjusted EBIT/revenue * revenue/invested capital

EBIT margin, adjusted EBIT/revenue vs. Capital productivity ($ revenue per $ invested capital)

Source: IATA using data from The Airline Analyst

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US performance dominating industry totals

Net post-tax profit margins

Source: IATA Economic Performance of the Airline Industry, End-Year 2016 report

IATA Economics www.iata.org/economics
Wide variation in balance sheet performance

Adjusted net debt/EBITDAR by region

- Latin America
- Asia Pacific
- Europe
- North America

Source: IATA Economic Performance of the Airline Industry, End-Year 2016 report
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