



ECONOMIC PERFORMANCE OF THE AIRLINE INDUSTRY

This new semi-annual report replaces the quarterly Airlines Financial Forecast, and takes a broader look at how the industry is adding value for its consumers, the wider economy and governments, as well as for its investors.

Key points

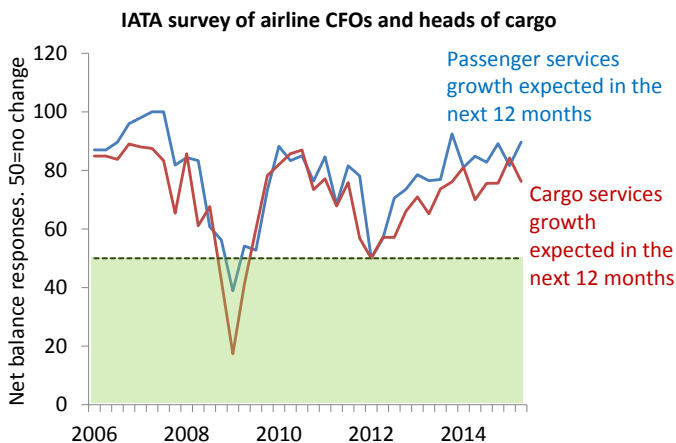
- Consumers benefit from lower oil prices with lower fares, more routes, and spend 1% of world GDP on air transport.
- Economic development big winner from the doubling of city pairs and halving of air transport costs in past 20 years.
- Governments gain substantially from \$116bn of taxation this year and from more than 58 million 'supply chain' jobs.
- Equity owners see a far better 2015 with a 7.5% average airline ROIC, above the cost of capital for the first time.
- Fuel use per ATK to fall a further 1.5% y-o-y, saving 11 million tonnes of CO₂ emissions and \$3 billion of fuel costs.
- Load factors forecast to stabilize as capacity rises; new aircraft deliveries represent a \$180 billion investment.
- Jobs in the industry should reach 2.5 million, productivity will be up 3.2% and GVA/employee almost \$97,000.
- Infrastructure use costs are rising, plus inefficiencies in Europe alone add €2.9bn to airline costs this year.
- N American region performs best with a 7.5% net post-tax profit margin in 2015. Africa weakest at just 0.8%.

Consumers

Consumers will see a substantial increase in the value they derive from air transport this year. New destinations are up 1.7% this year already, and frequencies have risen by even more. We expect 1% of world GDP to be spent on air transport in 2015, totaling over \$760 billion. Air travel is accelerating, with growth of 6.7% expected this year, the best since 2010, well above the 5.5% trend of the past 20 years. This is being driven mainly by the upturn of the economic cycle. But price is also attracting consumers. The average return fare (before surcharges and tax) of \$429 in 2015 is forecast to be more than 64% lower than 20 years earlier, after adjusting for inflation. Air freight had been in the doldrums since 2010 but now a cyclical upturn is evident.

Worldwide airline industry	2013	2014	2015
Spend on air transport*, \$billion	752	769	763
% change over year	1.8%	2.2%	-0.7%
% global GDP	0.9%	0.9%	1.0%
Return fare, \$/pax. (2015\$)	493	473	429
Compared to 1994	-59%	-61%	-64%
Freight rate, \$/kg (2015\$)	2.33	2.22	2.02
Compared to 1994	-60%	-62%	-66%
Passenger departures, million	3,143	3,327	3,542
% change over year	5.1%	5.8%	6.5%
RPKs, billion	5839	6190	6603
% change over year	5.7%	6.0%	6.7%
Freight tonnes, million	49.3	51.5	54.2
% change over year	2.3%	4.5%	5.3%
World GDP growth, %	2.5%	2.6%	2.9%
World trade growth, %	2.7%	3.0%	3.7%

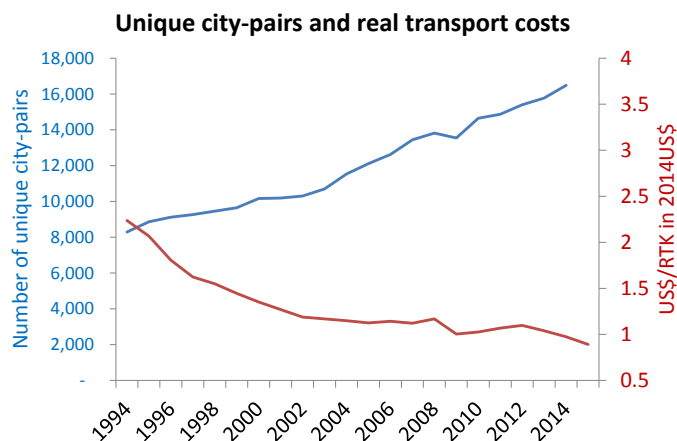
Note: RPK = Revenue Passenger Km, FTK = Freight Tonne Km, y-o-y = year on year change. GVA = Gross Valued Added (firm level GDP). * Airline revenue +indirect taxes. Sources: IATA, ICAO, EIU, Neth CPB, PaxIS, CargoIS.



Airline CFOs and heads of cargo reported in April that they expect growth in passenger services over the next 12 months to be as strong as in 2010 and early 2011. Cargo is also expected to see its strongest growth since 2010. The upturn in economic activity driving these expectations is fragile, as weakness in Europe and Asia has shown. However, an easing in fiscal austerity policies, continued expansionary monetary policy and progress in deleveraging the private sector, are all coming together to boost growth, particularly in economies like the US.

Wider economy

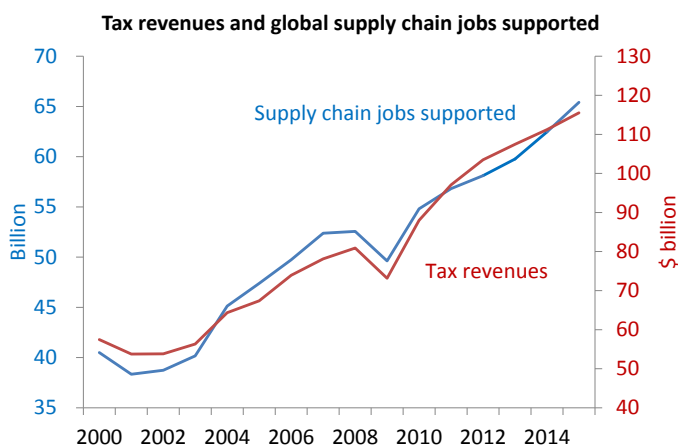
Economic development worldwide is getting a significant boost from air transport. This wider economic benefit is being generated by increasing connections between cities – enabling the flow of goods, people, capital, technology and ideas - and reducing air transport costs. The number of unique city-pair connections is estimated at more than 16,000, almost double the connectivity by air twenty years ago. The price of air transport to users continues to fall, after adjusting for inflation. Compared to twenty years ago real transport costs have more than halved.



Lower transport costs and improving connectivity have boosted trade flows; trade itself has resulted from globalizing supply chains and associated FDI.

Government

Governments have also gained substantially from the good performance of the airline industry. Airlines and their customers are forecast to generate \$116 billion in tax revenues this year. That's the equivalent of almost 48% of the industry's GVA (Gross Value Added, which is the firm-level equivalent to GDP), paid to governments in payroll, social security, corporate and product taxes (Note that charges for services are excluded). In addition the industry continues to create high value added jobs.



Worldwide airline industry	2013	2014	2015
Unique city pairs	15774	16485	
Compared to 1994	190%	199%	
Transport cost, US\$/RTK (2014\$)	103.9	97.4	89.1
Compared to 1994	-54%	-56%	-60%
Value of trade carried, \$billion	6,413	6,468	5,949
% change over year	2.4%	0.9%	-8.0%
Value of tourism spend, \$billion	623	660	651
% change over year	11.4%	5.9%	-1.3%
Supply chain jobs, million	58.1*		
% change over year	2.3%		
Supply chain GVA, \$ billion	2434*		
% change over year	3.6%		

Note: RTK = Revenue Tonne Kilometers, GVA = Gross Value Added. The total number of 'routes' or airport pairs is much higher because of multiple airports in some cities and connections are counted both ways.

Source: IATA, ATAG, OAG, UNWTO, IHS Global Insight. * 2012 data, ATAG

Air transport is vital for manufactures trade today, which is more in components rather than finished goods. We forecast that the value of international trade shipped by air this year will be \$5.9 trillion (down from 2014 only because of the stronger \$). People travelling by air this year, tourists, will spend a forecast \$651 billion.

Another impact on the wider economy comes through the influence increased airline activity has on jobs in the sector, in its supply chain, and the jobs generated as spending ripples through other sectors of the economy. These 'supply chain' jobs around the world are estimated to have been 58.1 million in 2012.

Worldwide airline industry	2013	2014	2015
Tax revenues, \$billion	107	111	116
% change over year	3.9%	3.5%	3.9%
% GVA	48.8%	48.7%	47.8%
# of consumer protection regimes	55	59	

Note: GVA = Gross Value Added (firm level GDP)

Source: IATA, Oxford Economics.

But in many countries the value of aviation for governments, and the wider economy, is not well understood. The commercial activities of the industry remain highly constrained by bilateral and other regulations. Moreover, regulation is far from 'smart' with unnecessarily high costs in many situations. Passenger rights/consumer protection laws are one example of well-intentioned but badly designed regulation that can lead to disproportionate, inconsistent and badly targeted costs. There are now 59 regimes currently in force, based on information currently available.

Sources for charts on this page: ATAG, Oxford Economics, IATA, ICAO, OAG.

Capital providers

Debt providers to the airline industry are well rewarded for their capital, usually invested with the security of a very mobile aircraft asset to back it. On average during the business cycle the airline industry has been able to generate enough revenue to pay its suppliers bills and service its debt. But typically net post-tax profit margins have been small, leaving little to pay equity investors.

Equity owners have not been rewarded adequately for risking their capital in most years, except at a handful of airlines. Investors should expect to earn at least the normal return generated by assets of a similar risk profile, the weighted average cost of capital (WACC). Such is the intensity of competition, and the challenges to doing business, that average returns are rarely as high as the industry's cost of capital. Equity investors have typically seen their capital shrink. But this year we expect the industry to generate a return on invested capital (ROIC) of 7.5%, which does, for the first time, adequately reward equity owners. On invested capital of almost \$700 billion, the industry is forecast to generate \$4.9 billion of value for investors this year. But it should be clear that \$29.3 billion net profit, while exceptional for the airline industry, is really only just sufficient to pay investors a 'normal' return for risking their capital. Moreover, high returns are not widely spread in the industry outside N America.

The trend improvement in returns is being driven by changes in structure and behavior. Breakeven load factors are usually on a painful upward trend as yields fall faster than cost reductions. They are falling this year because of lower fuel prices and the impact of increasing ancillary revenues. On top of that, consolidation and more rational behavior have boosted load factors achieved.

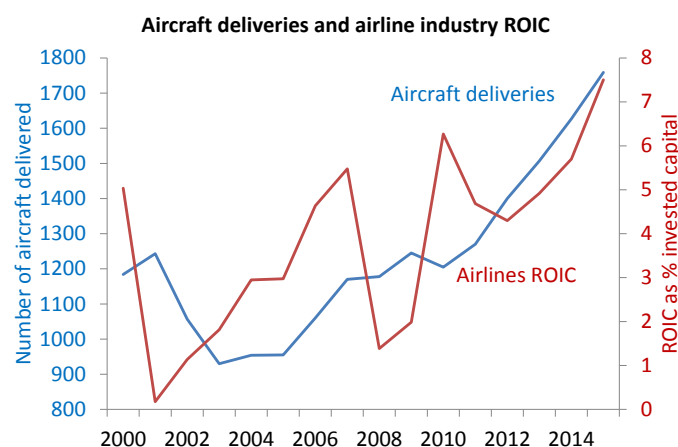
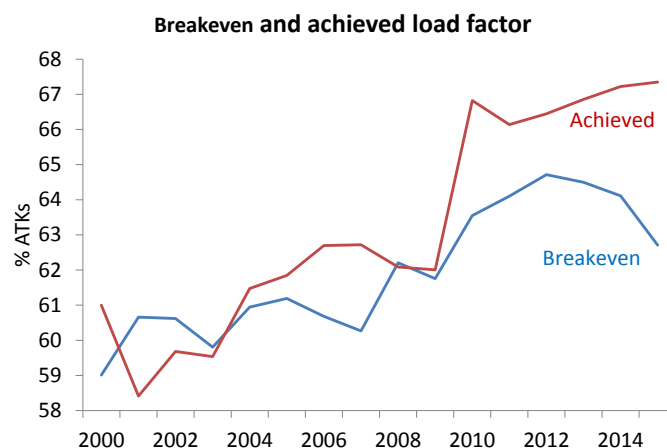
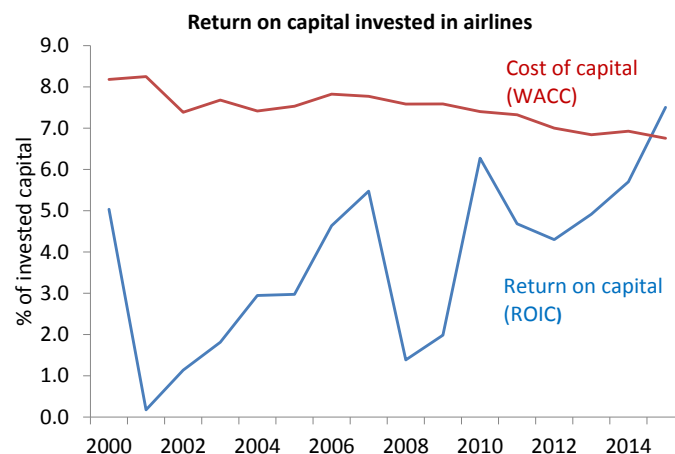
Aircraft

This year commercial airlines will take delivery of more than 1,700 new aircraft, representing an investment by the industry of around \$180 billion. The trend improvement in average returns (ROIC) has given the industry the confidence to invest on this scale. Sustained high fuel costs had also made it economic to retire older aircraft at a higher rate, but that effect will clearly weaken this year. Over half of this year's deliveries will replace existing fleet, making a significant contribution to increasing fleet fuel efficiency, as described below.

Worldwide airline industry	2013	2014	2015
ROIC, % invested capital	4.9%	5.7%	7.5%
ROIC-WACC, % invested capital	-1.9%	-1.2%	0.7%
Investor value, \$ billion	-13.0	-8.3	4.9
EBIT margin, % revenue	3.5%	4.6%	6.9%
Net post-tax profits, \$billion	10.6	16.4	29.3
% revenues	1.5%	2.2%	4.0%
\$ per passenger	3.37	4.94	8.27

Note: ROIC = Return on Invested Capital, WACC = Weighted Average Cost of Capital, EBIT = Earnings Before Interest and Tax. **Current year or forward-looking industry financial assessments should not be taken as reflecting the performance of individual airlines, which can differ significantly.**

Source: IATA, McKinsey, ICAO.

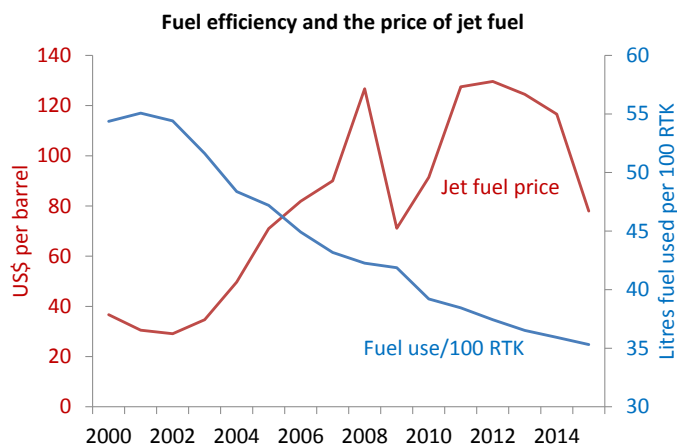


Source: IATA, ICAO, McKinsey, Ascend

The fleet is forecast to increase by over 900 aircraft to end next year at almost 27,000 aircraft; lower fuel prices will lead to fewer older aircraft leaving the fleet. The average size of aircraft in the fleet is continuing to rise slowly. So by the end of next year there will be some 3.7 million available seats. These seats are also being used more intensively, which is critical for profitability in a capital intensive industry – and it also reduces environmental impact. Passenger load factors are expected to rise above 80% on average this year. Aircraft are also being flown more intensively. The number of scheduled departures is forecast to exceed more than 35 million next year. That’s an average of 67 aircraft departing each minute of 2015.

Fuel

This year we forecast the airlines fuel bill will fall to \$191 billion, which will represent 28% of their total operating costs. Jet fuel prices have fallen substantially and we base our forecast on an average price of \$78/b this year, and \$65/b for the Brent crude oil price. The ‘crack’ spread over Brent crude oil prices has risen above its recent average of 15%. However, profit from jet fuel is made not in the refining part of the value chain but upstream by the oil producers. We forecast that purchases of jet fuel by the airline industry next year will generate \$16 billion of profit for the upstream part of the jet fuel supply chain.



Source: IATA, ICAO, Platts

Fuel is such a large cost that it focuses intense effort in the industry to improve fuel efficiency, through replacing fleet with new aircraft, better operations and efforts to try to persuade governments to remove the airspace and airport inefficiencies that waste around 5% of fuel burn each year.

Worldwide airline industry	2013	2014	2015
Aircraft fleet	25,150	25,926	26,828
% change over year	2.7%	3.1%	3.5%
Available seats, million	3.4	3.5	3.7
% change over year	5.2%	5.0%	5.3%
Average aircraft size, seats	134	136	139
% change over year	2.4%	1.8%	1.8%
Aircraft departures, million	32.0	33.6	35.4
% change over year	2.7%	4.8%	5.4%
ASKs, % change over year	5.2%	5.8%	6.2%
Passenger load factor, % ASK	79.7%	79.8%	80.2%
Freight load factor, % AFTK	47.0%	47.4%	47.4%
Weight load factor, % ATK	66.9%	67.2%	67.3%
Breakeven load factor, % ATK	64.5%	64.1%	62.7%

Note: ASK = Available Seat Kilometer, AFTK = Available Freight Tonne Kilometer, ATK = Available Tonne Kilometer.

Source: Ascend, ICAO, IATA.

Worldwide airline industry	2013	2014	2015
Fuel spend, \$billion	228	226	191
% change over year	0.5%	-1.1%	-15.6%
% operating costs	33.0%	32.3%	28.1%
Fuel use, billion litres	265	276	288
% change over year	1.7%	4.2%	4.6%
Fuel efficiency, litre fuel/100atk	24.4	24.1	23.8
% change over year	-1.9%	-1.1%	-1.5%
CO ₂ , million tonnes	694	724	757
% change over year	1.7%	4.2%	4.6%
Fuel price, \$/barrel	124.5	116.6	78.0
% change over year	-3.9%	-6.3%	-33.1%
% spread over oil price	14.4%	15.0%	20.0%
Upstream oil profits, \$billion	26	26	16

Note: ATK = Available Tonne Kilometer.

Source: IATA, IEA, McKinsey

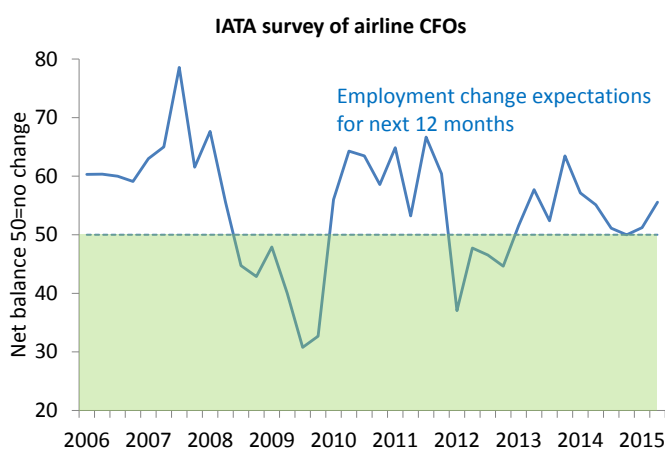
We forecast that fuel efficiency, in terms of capacity use i.e. per ATK, will improve by 1.5% in 2015. Higher load factors are forecast to improve fuel use per RTK by 1.7% this year.

Continued fuel efficiency gains have partially decoupled CO₂ emissions from expanding air transport services. In the absence of the expected fuel efficiency gain this year, fuel burn and CO₂ emissions would be 1.5% higher in 2015. That represents a saving of over 11 million tonnes of CO₂, as well as saving on fuel that would have cost the industry and its consumers an additional \$3 billion.

Labour

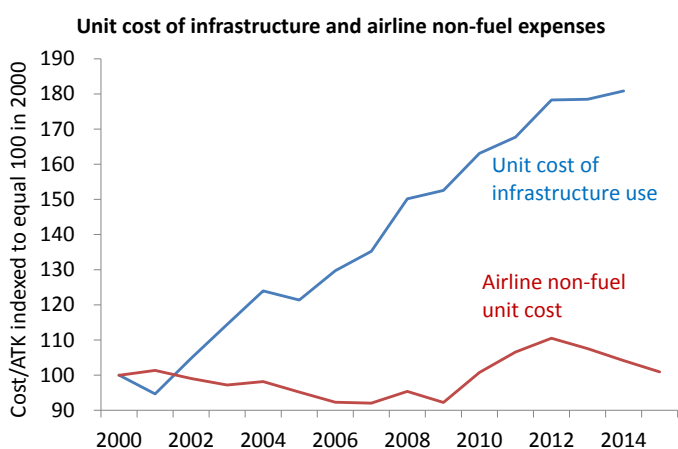
Airlines are expecting to accelerate the pace of hiring over the next year. Growth in employment was strong in 2014, and IATA's survey of airline CFOs in April showed a rising net balance of those saying they would increase hiring over the next 12 months.

We estimate that total employment by airlines will reach 2.5 million this year, a gain of over 3% compared to 2014. Productivity is expected to be strong, as capacity growth accelerates in 2015, with the average employee generating almost 490,000 ATKs, which is a 3.2% improvement over last year. That strong trend improvement over last year. That strong trend improvement in productivity is helping airlines to keep unit labour costs under control. This year we forecast unit labour costs will be reduced by a further 0.5%.



Infrastructure

Infrastructure partners play an important role in the service airlines provide to their customers, affecting the experience, the timeliness of the journey, and its cost.



Source: ACI (aeronautical revenues), ICAO (en-route charges, ATK), IATA.

Worldwide airline industry	2013	2014	2015
Labour costs, \$ billion	135	142	150
% change over year	4.2%	5.1%	5.7%
Employment, million	2.35	2.42	2.50
% change over year	2.1%	3.2%	3.1%
Productivity, atk/employee	461,517	471,389	485,371
% change over year	2.1%	2.7%	3.2%
Unit labour cost, \$/ATK	0.125	0.125	0.124
% change over year	0.5%	-0.2%	-0.5%
GVA/employee, \$	93,730	94,227	96,753
% change over year	1.6%	0.5%	2.7%

Note: ATK = Available Tonne Kilometer, GVA = Gross Value Added (firm level GDP).

Source: IATA, ICAO, ATAG, Oxford Economics.

The jobs being created are not just productive for their airline employers; they are also highly productive for the economies in which they are employed. We estimate that the direct GVA for national economies, generated by the average airline employee, will rise 2.7% this year to almost \$97,000 a year, which is well above the economy-wide average. Additional jobs in the airline sector will raise average levels of productivity in an economy.

Worldwide airline industry	2013	2014	2015
European airspace inefficiency			
Airline costs, € million	2,730	2,720	2,899
Passenger time loss, € million	4,531	4,608	4,677

Source: IATA, Eurocontrol PRC's European ANS Performance Review. Note a change of methodology has altered estimates for 2013 and 2014.

The direct cost paid for using infrastructure has increasingly been transferred to the passenger. Overall the cost of using airport and ANSP infrastructure has risen steeply over the past decade, partly because competitive pressures are very weak in this part of the supply chain. This contrasts with the relatively limited rise in other non-fuel airline costs. Moreover, inefficiencies causing delay and inefficient routings add to the direct cost. We forecast that the delays caused by inefficient airspace management in Europe alone will cost the industry \$2.9 billion this year, as well as generating unnecessary CO₂ emissions. The time passengers waste in these delays is a consumer cost worth an estimated \$4.7 billion.

Regions

The strongest financial performance is being delivered by airlines in North America. Net post-tax profits are the highest at \$15.7 billion this year. That represents a net profit of \$18.12 per passenger, which is a marked improvement from just 3 years earlier. Net margins forecast at 7.5% exceed the peak of the late 1990s. This improvement has been driven by consolidation, helping to raise load factors (passenger + cargo) over 64%, and ancillaries, which together with lower fuel costs push breakeven load factors down to 56.4% this year.

Breakeven load factors are highest in Europe, caused by a combination of low yields due to the highly competitive open aviation area, and high regulatory costs. But the region has achieved the second highest load factors and is generating solid growth. Net profits are forecast to rise to \$5.8 billion this year represent \$6.30 per passenger and a margin of 2.8%.

Airlines in Asia-Pacific have very diverse performances. On average profit per passenger is \$4.24 as lower fuel costs and stronger cargo markets, particularly important in this manufacturing region, help to boost net margins moderately to 2.5% and net profits to \$5.1 billion.

Middle Eastern airlines have one of the lower breakeven load factors. Average yields are low but unit costs are even lower, partly driven by the strength of capacity growth; 12.6% this year. Post-tax profits are expected to grow to \$1.8 billion next year, representing a profit of \$9.61 per passenger and a net margin of 3.1%.

Latin American airlines have faced a mixed environment, with weak home markets hampering performance, despite a degree of consolidation and some long-haul success. Net profits of only \$0.6 billion are forecast this year, which is \$2.27 per passenger and a margin of 1.8%.

Africa is the weakest region, as in the past 2 years. Profits are barely positive, and represent just \$1.59 per passenger. Breakeven load factors are relatively low, as yields are a little higher than average and costs are lower. However, few airlines in the region are able to achieve adequate load factors, which average the lowest globally at 56% in 2015. Performance is improving, but slowly.

5th June 2015

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Worldwide airline industry	2013	2014	2015
Africa			
Net post-tax profit, \$billion	-0.1	0.0	0.1
Per passenger, \$	-1.64	-0.03	1.59
% revenue	-0.8%	0.0%	0.8%
RPK growth, %	4.6%	0.3%	3.2%
ASK growth, %	4.0%	2.5%	3.3%
Load factor, % ATK	56.1%	56.1%	56.0%
Breakeven load factor, % ATK	56.3%	56.0%	55.4%
Asia-Pacific			
Net post-tax profit, \$billion	1.9	1.2	5.1
Per passenger, \$	1.81	1.08	4.24
% revenue	0.9%	0.6%	2.5%
RPK growth, %	7.2%	6.9%	8.1%
ASK growth, %	7.1%	7.4%	7.7%
Load factor, % ATK	66.9%	66.9%	67.0%
Breakeven load factor, % ATK	65.0%	65.2%	62.8%
Middle East			
Net post-tax profit, \$billion	0.3	0.7	1.8
Per passenger, \$	1.91	3.93	9.61
% revenue	0.6%	1.2%	3.1%
RPK growth, %	11.6%	12.6%	12.9%
ASK growth, %	12.3%	11.5%	12.9%
Load factor, % ATK	60.1%	60.1%	60.2%
Breakeven load factor, % ATK	59.5%	59.1%	58.0%
Latin America			
Net post-tax profit, \$billion	0.2	0.0	0.6
Per passenger, \$	0.83	0.06	2.27
% revenue	0.6%	0.0%	1.8%
RPK growth, %	6.3%	6.9%	5.1%
ASK growth, %	4.5%	4.6%	5.0%
Load factor, % ATK	61.2%	61.2%	61.2%
Breakeven load factor, % ATK	59.9%	60.1%	58.8%
North America			
Net post-tax profit, \$billion	7.4	11.2	15.7
Per passenger, \$	8.97	13.30	18.12
% revenue	3.5%	5.2%	7.5%
RPK growth, %	2.3%	2.7%	3.0%
ASK growth, %	2.0%	2.5%	3.1%
Load factor, % ATK	64.3%	64.3%	64.2%
Breakeven load factor, % ATK	59.9%	58.1%	56.4%
Europe			
Net post-tax profit, \$billion	1.0	3.3	5.8
Per passenger, \$	1.21	3.82	6.30
% revenue	0.5%	1.6%	2.8%
RPK growth, %	3.9%	5.8%	6.8%
ASK growth, %	2.7%	5.2%	6.5%
Load factor, % ATK	66.7%	66.7%	66.6%
Breakeven load factor, % ATK	65.4%	64.7%	63.3%

Note: RPK = Revenue Passenger Kilometer, ASK = Available Seat Kilometers, ATK = Available Tonne Kilometers. **Current year or forward-looking industry financial assessments should not be taken as reflecting the performance of individual airlines, which can differ significantly.** Source: ICAO, IATA.

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