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- **Overall European flights increased by 2.8% in 2016 compared with 2015 and exceeded 10 million flights. Preliminary data for January 2017 show a 4.1% increase of flights on January 2016.**
- **Amsterdam Schiphol was the busiest airport in terms of IFR movements in 2016 overtaking Paris CDG and London Heathrow.**
- **Airline ticket price growth has decelerated in 2016 due to a drop in oil prices and increased competition. Tickets were on average 3% cheaper compared with 2015.**
- **Oil prices averaged out at €41 per barrel in 2016. EIA forecast Brent crude oil to average €50 in 2017. Oil prices climbed to a monthly average of €52 per barrel in January.**

EUROCONTROL Statistics and Forecasts

European flights (ECAC – European Civil Aviation Conference area) increased by 2.8% in 2016 compared with 2015 and were in line with the forecast updated in September 2016 (Figure 1). Total flights reached 10.2 million flights in 2016 and were close to 2008 traffic levels. Removing the leap day effect, this was a 2.5% growth in average daily terms in 2016 (vs. 2015). Terrorist attacks and political unrest in 2016 led to adverse travel advice to North-African states (Egypt and Tunisia) and Turkey and resulted in a shift of popular holiday destinations towards the Iberian Peninsula, Balearic and Canary Islands and the Azores.

Preliminary data for January 2017 show a 4.1% increase of flights on January 2016.

In 2016 and for the fourth consecutive year, the low-cost segment maintained its dominant position with an average growth rate of 7.8% on 2015 and was followed by the traditional segment which grew steadily at a rate of 2.4%. Also on the growth side, the all-cargo segment recorded an annual growth rate of 2% owing to the last two months of the year - November and December- which recorded strong increases of 8.4% partly due to the sustained increase in export orders in Germany and the ongoing weakness of the euro.

The charter segment (non-scheduled) was the weakest with an average yearly fall of 15% mainly due to a sharp decline in traffic to/from Turkey and the Russian Federation and to/from Egypt and the Russian Federation notwithstanding the continuing impact of travel advice to Turkey on European leisure tour operators. The business aviation segment recorded a small decrease of 0.2% ending November and December high at a 4.3% growth rate (Figure 2).

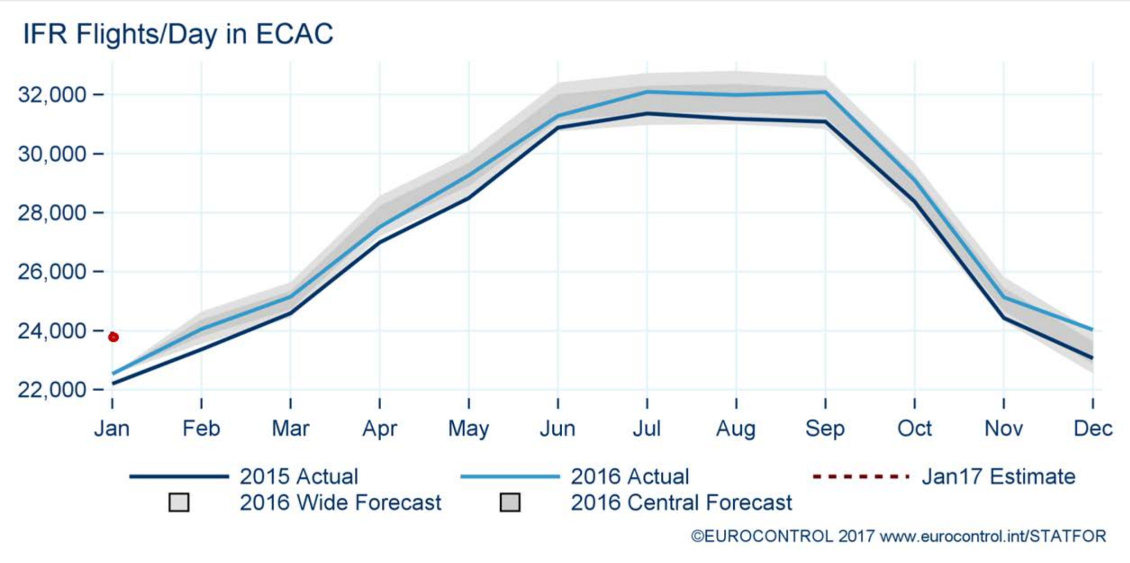

Figure 1: Monthly European Traffic and Forecast (based on the 7-year forecast Sep16).

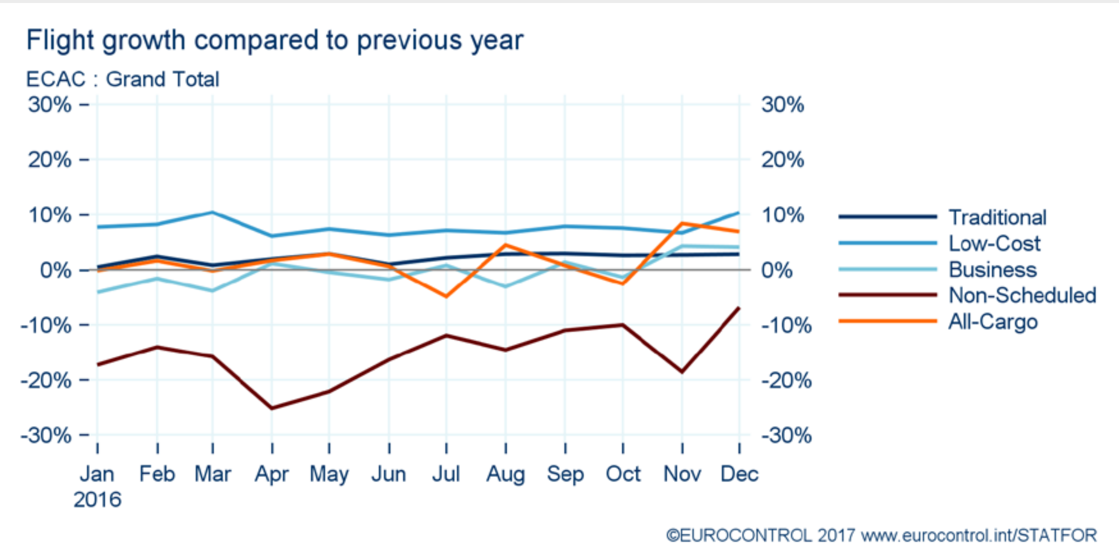

Figure 2: Traffic development by market segment in 2016.

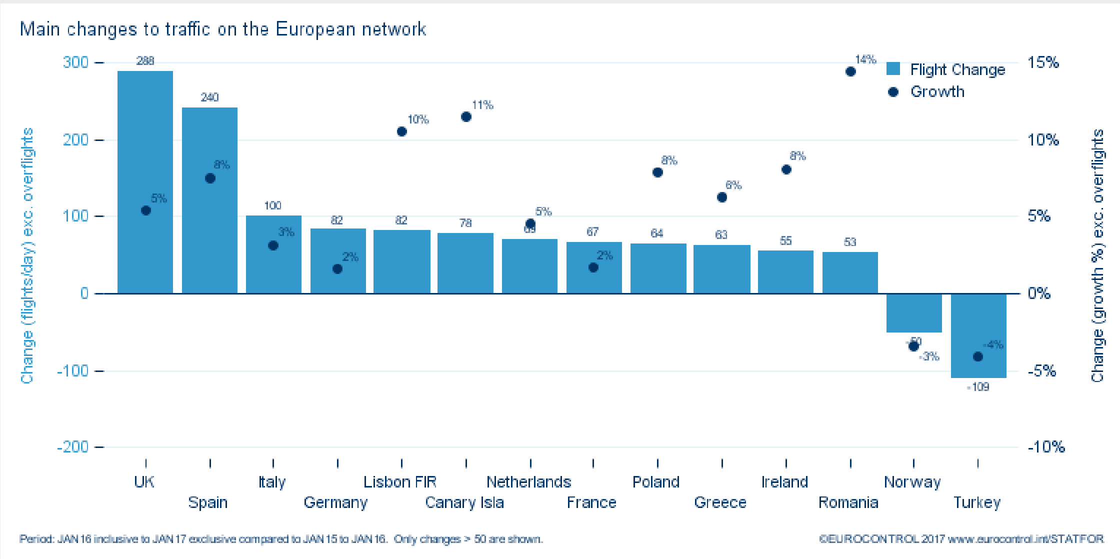

Figure 3: Main changes to traffic on the European network in 2016

Percentage of flights delayed on departure

Breakdown of all-causes delay per flight

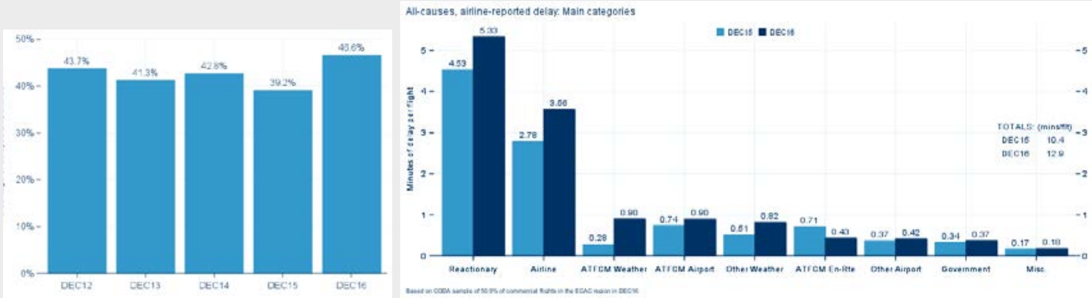

Figure 4: Delay statistics (all-causes, airline-reported delay –December 2016).

Twelve states contributed to the sustained growth of traffic in Europe adding each more than 50 daily flights to the network (excluding overflights) in 2016 (Figure 3). The most dominant contributors were the United Kingdom (+288 daily flights) and Spain (Canary Islands excluded) (+240 daily flights) thanks to robust international arrival/departures throughout the year. Italy was the third contributor with 100 extra daily flights thanks to increased flows to/from the United Kingdom and Germany. Germany, the fourth contributor added 82 flights per day. In terms of percentage increases, Portugal (excluding Azores) (+10% on 2015) and Canary Islands (+11% on 2015) witnessed strongest traffic rises. Other North-Western countries (the Netherlands, France and Ireland) added together 191 daily flights to the network. Poland added 64 flights per day and Greece added 63 flights per day. The local traffic in Romania increased by 14% (+53 daily flights) owing to a strong domestic flow (+13 daily flights) and increased traffic to/from UK, Italy and Germany.

Turkey which was the top contributor to traffic growth in 2015 was hit by numerous terrorist attacks and political turmoil in 2016; the country started to record fewer flights since April 2016 and averaged 109 fewer daily flights during the whole year. The travel ban imposed by the Russian Federation (from December 2015 to August 2016) resulted in a 65% decrease of charter flights to Turkey. Norway continued to be impacted by the oil crisis and saw 50 fewer daily flights in 2016 (vs. 2015). Belgium/Luxemburg recorded 24 fewer flights per day and was impacted by the terrorist attack in March 2016 although its international arrivals/departures flow shows signs of recovery since December.

The top three ex-European partners in 2016 (growth on 2015) were the United States (+6.1%), the Russian Federation (-17%) and the United Arab Emirates (+8%). Israel recorded the best progression in 2016 with an increase of 9% on its flows from/to Europe. Traffic flows between Europe and Tunisia and Europe and Egypt continued to suffer from the disruption of terrorist attacks in 2015 and 2016, hence remained 13% and 30% respectively below 2015 levels.

Four out of the top five airlines adding the most flights to the European network in 2016 (vs. 2015) were low-cost operators. Ryanair added 200 flights per day in 2016 (compared with 2015) and was by far the main contributor, followed by easyJet (+75 flights/day), Wizz Air (+50 flights/day) and Vueling (+35 flights/day). Turkish Airlines was the first traditional scheduled operator and ranked fifth, adding 30 flights per day to the network in 2016.

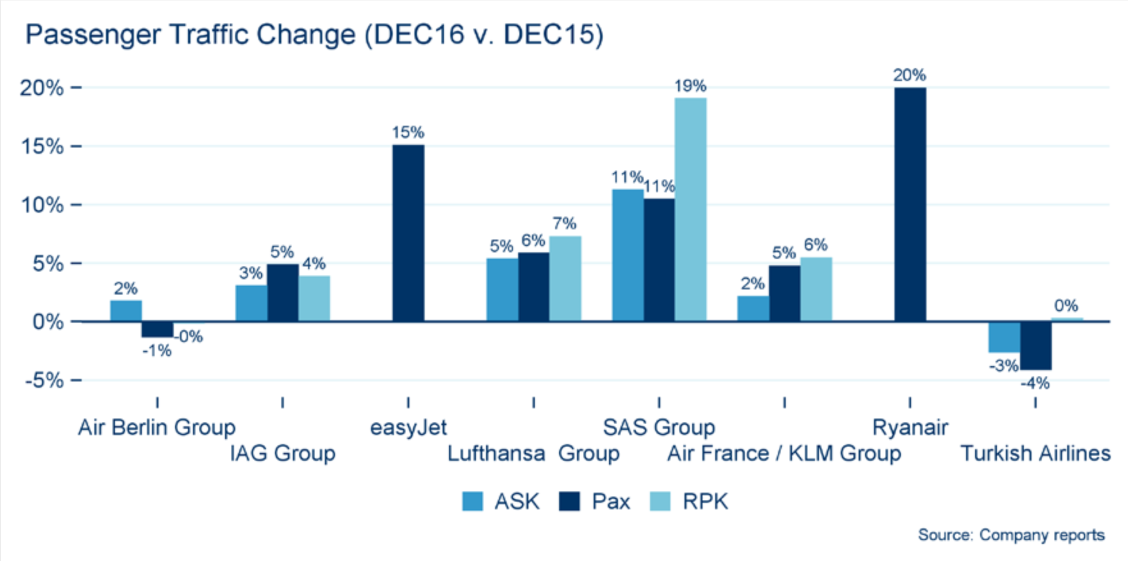

Figure 5: Main carriers' traffic statistics.

Based on data from airlines for delays from all causes, the average departure delay per flight in December 2016 increased by 2.5 minutes to 12.9 minutes. Further analysis of the delay reasons shows that reactionary delay increased by 0.8 minutes per flight. Airline related delay increased to 3.6 minutes per flight. ATFM weather increased to 0.9 minutes per flight from 0.3 minutes in December 2015. The percentage of delayed flights on departure (>=5 minutes) was 47%, an increase of 8 percentage points compared with December 2015 (Figure 4). Seasonal weather impacted several airports throughout December, especially Amsterdam Schiphol, Madrid Barajas, London Heathrow and London Gatwick. Istanbul Sabiha Gökcen airport continues to generate delays due to airport capacity, Istanbul Atatürk also suffered from airport capacity delays however to a lesser extent.

Other Statistics and Forecasts

ACI reported that overall passenger counts at European airports climbed 7.1% in November 2016 compared with November 2015 with overall aircraft movements up 3.7% (ACI, 10 January).

IATA reported that European scheduled passenger traffic (RPK) increased by 8.3% in November 2016 compared with November 2015 and reached the strongest demand in nine months. Capacity was up 6.8% while the total passenger load factor was 80.8%, up 1 percentage point on November 2015 (IATA, 11 January).

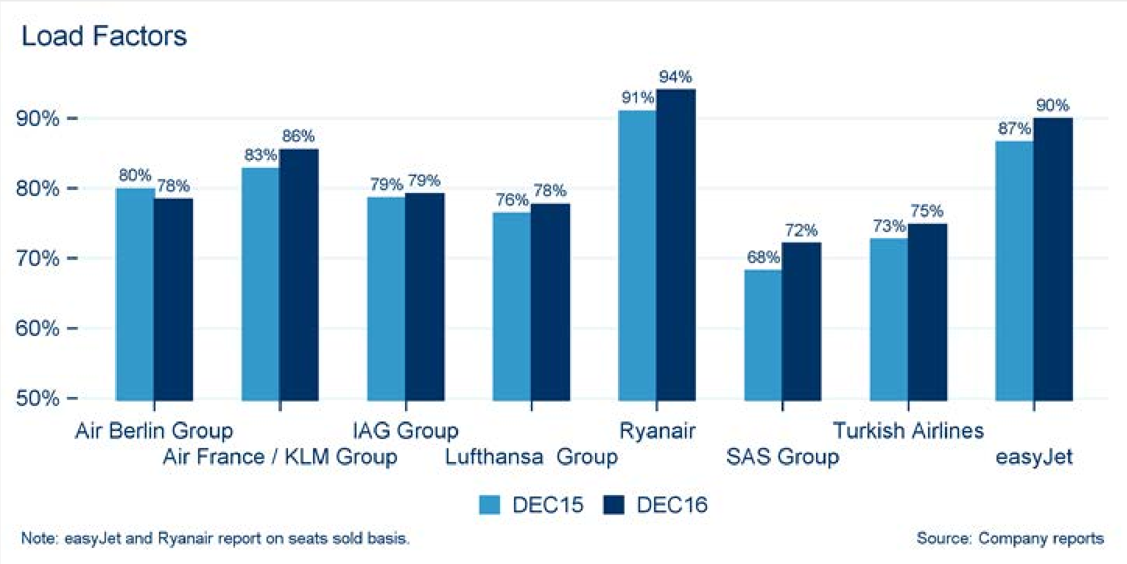

Figure 6: Main carriers' load factors.

Passenger Airlines

Capacity, costs and jobs

IAG is reportedly planning to launch long-haul low-cost flights from Barcelona to Los Angeles, San Francisco, Buenos Aires, Santiago de Chile, Havana and Tokyo from June onwards although no decision was taken as regards the setting up of a new airline or the use of resources from its own airlines: Vueling, Iberia, British Airways and Aer Lingus (Reuters, 23 December).

Lufthansa Group plans to hire over 3,000 staff in 2017 for its various airlines of which 2,200 flight attendants mostly for its hubs at Frankfurt and Munich (Lufthansa, 4 January).

Low-cost Norwegian expands in the UK with the addition of nine Boeing B787 Dreamliner to its fleet along with its first B737 MAX and will launch low-cost long-haul flights from the UK to non US destinations. It also plans to increase by 55% its transatlantic UK-US routes. In all, the carrier expects 30 aircraft deliveries in 2017 and plans the recruitment of circa 2,700 pilots and cabin crew (Norwegian, 4 January).

Alitalia's board has approved the loss-making airline's new business plan which includes staff reductions. The airline's short-term funding will be negotiated with key stakeholders within the next two months (Alitalia, 22 December).

Start-up Air Belgium plans to launch operations in the second half of 2017 with flights to China and is now in the process of recruiting pilots and cabin crew for its sole Airbus A340 aircraft (Air Belgium, January).

airberlin's subsidiary Niki will stop operations from Vienna to European destinations including Barcelona, Hamburg, Hanover, Madrid, Nice, Paris CDG, Stockholm and Zurich from February-March onwards. Last December, as part of its restructuring plan, airberlin decided to sell its 49% stake in Niki to Etihad (airberlin, December & Niki, January).

Rank 2015	Rank 2016	Departure Airport	Average Daily Departures 2016	Growth on 2015
4	1	Amsterdam	670	5.9%
1	2	Paris Charles De Gaulle	655	0.5%
2	3	London Heathrow	649	-0.1%
3	4	Frankfurt	632	-1.4%
5	5	Istanbul Atatürk	622	0.0%
6	6	Munich	535	3.6%
7	7	Madrid	517	2.8%
8	8	Rome Fiumicino	429	-0.7%
9	9	Barcelona	421	6.3%
10	10	London Gatwick	383	4.3%

Top 10 Departure Airports' share of total departures in 2016 = 20%

Source: www.eurocontrol.int/statfor/sid

Figure 7: Main departure airports in 2016.

Norwegian regional airline Wideroe has placed a firm order for 3 Embraer E190-E2 aircraft with an option for another 12 aircraft of the E2 family jets enabling the airline to move to jet operations as well. Wideroe currently operates a fleet of turboprop Bombardier Dash 8 aircraft (Embraer, 16 January).

Irish CityJet will buy Danish regional Cimber, a subsidiary of SAS and its fleet of 11 Bombardier CRJ900 aircraft and will continue to operate regional flights from Copenhagen on behalf of SAS in a new six-year wet lease agreement. CityJet will also place an order for circa 10 new Bombardier CRJ900 to be used in wet lease production for SAS. The deal is part of SAS's strategy to use wet lease partners in regional traffic (SAS, 24 January).

easyJet confirmed its plan to establish an AOC (Air Operator Certificate) in a EU member state following the Brexit vote to leave EU last June; a result which has had a negative impact on the British pound. easyJet estimated that the weakness of the pound would cost the airline circa €125 million in 2017 (easyJet, 24 January).

Ukraine International Airlines has received its first Boeing B737-800 aircraft out of six units to be delivered in 2017 to serve its medium-haul network. The airline expects to increase its fleet from 40 aircraft at present to 90 aircraft by 2021 (UIA, 18 January).

British Airways cabin crew held a five-day strike in January (10 to11/1 and 19 to 21/1) over a pay dispute which led to the cancellations of a number of short-haul flights. Staff warned of another six-day walkout in the first half of February (British Airways, January).

airberlin has received approval from German authorities to wet-lease 38 Airbus A320 aircraft to Lufthansa Group for an initial term of six years. Eurowings will take 33 aircraft to phase out circa 20 older A320 aircraft and Austrian Airlines will take the remaining five A320 aircraft to strengthen its Vienna hub (airberlin, 30 January).

SAS will establish a new Air Operator License (AOC) in Ireland with bases in London and Spain to face low-cost competition and meet increasing demand for leisure travel in Europe. The new operations should be up and running with the start of the winter schedule (SAS, 1 February).

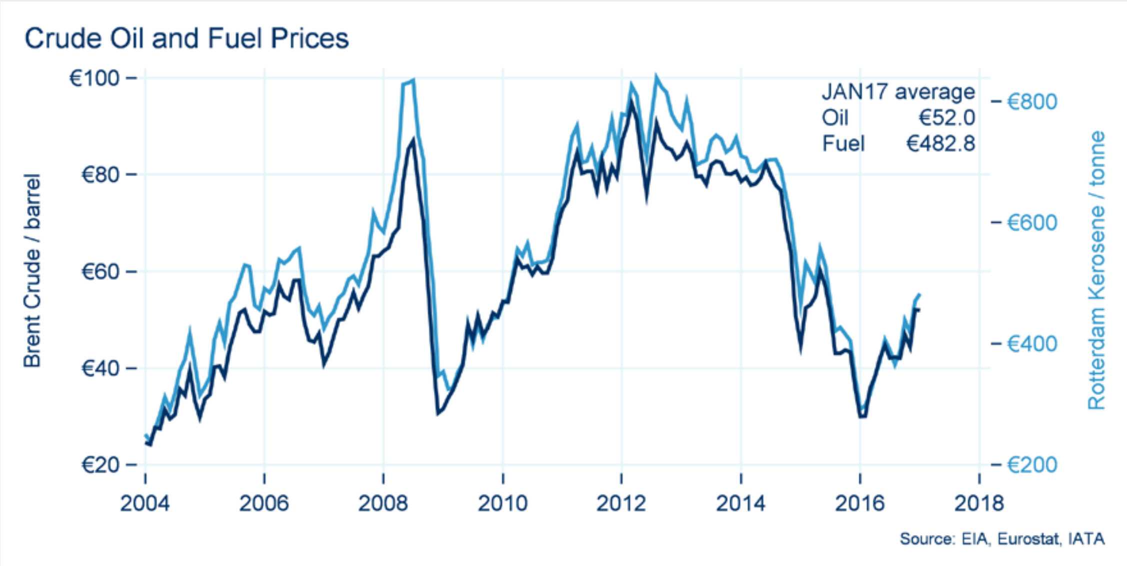

Figure 8: Brent and kerosene prices.

Traffic Statistics: December Update

Figure 5 and Figure 6 compare December 2016 figures with December 2015 figures for the European carriers. In addition to the number of passengers (PAX), passenger capacity is measured in available seat kilometres (ASK), traffic is measured in revenue passenger kilometres (RPK) and load factor as a percentage (%).

Routes, Alliances, Codeshares

Lufthansa's low-cost subsidiary, Eurowings will open a base at Munich in March with 4 aircraft and operate 32 destinations to UK, the Netherlands, France, Switzerland, Italy, Croatia, Greece, Spain and Portugal (Eurowings, December).

Eurowings also based in January one Airbus A320 aircraft at Salzburg, its second base in Austria after Vienna and will operate 10 routes including Hamburg, Düsseldorf, Cologne, Brussels, Paris CDG, Palma de Mallorca, Olbia, Split, Dubrovnik and Saloniki (Eurowings, January).

Alitalia will not enter into a partnership with Air Malta. Discussions have been held since April last year for Alitalia to acquire a 49% stake in the Maltese flag carrier (IM183) (Alitalia, 13 January 2017).

TUIfly Belgium, formerly Jetairfly will launch 33 new routes in summer 2017 including 13 routes from Belgium (Brussels, Charleroi, Ostend), 19 routes from France (Bordeaux, Dole, Lille, Lyon, Metz, Paris CDG, Strasbourg,Toulouse) and one from Italy (Rome) (routesonline, January).

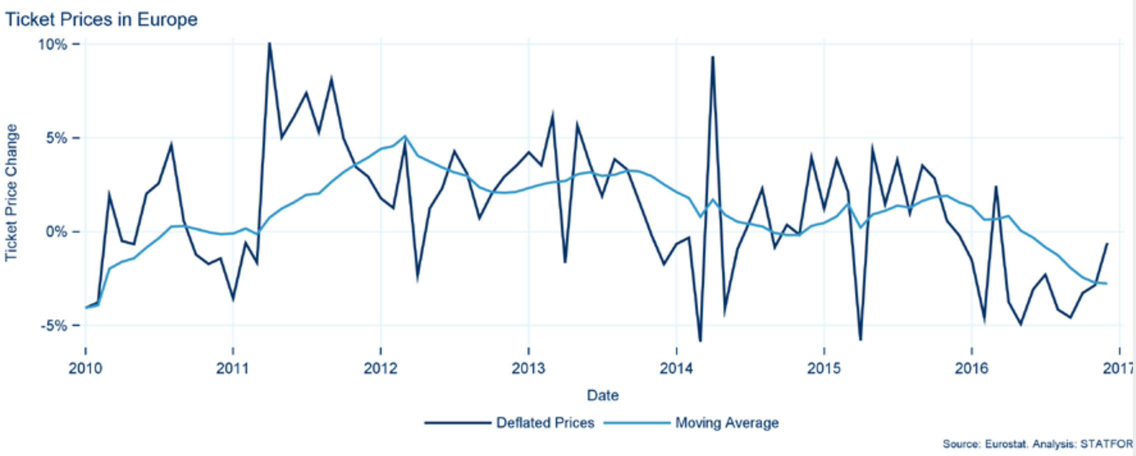

Figure 9: Deflated ticket prices in Europe.

Ryanair will launch 9 new routes from London Stansted to Naples, Cagliari, Beziers, Clermont-Ferrand, Grenoble, Nice, Strasbourg and Copenhagen for summer 2017 (Ryanair, 12 January).

Ryanair will add 15 new Israel routes to its winter 2017 schedule, bringing to 19 the number of routes the carrier will operate to Tel Aviv and Eilat Ovda (until new Eilat Ramon is opened) from airports in Germany, Poland Italy, Belgium, Cyprus, Hungary and Lithuania. (Ryanair, 1 February).

Air France-KLM Group will launch 39 new routes in the summer split between its airlines: Air France will operate 13 new routes from Paris CDG, Nice, Toulouse, Bordeaux and Marseille; KLM will operate 8 new routes from Amsterdam and Transavia will launch 18 new routes from Paris Orly, Amsterdam, Eindhoven and Munich (Air France-KLM, 1 February).

Airports

Amsterdam Schiphol ranked first and passed Paris CDG and Heathrow as the busiest European airport in 2016 (Figure 7) due to the strong performance of low cost airlines which contributed to 18% of the airport's growth compared with 2015.

Passenger traffic and aircraft movements in 2016 at top five European airports (based on the number of flights) compared with the year before were as follows (growth on 2015):

Passenger traffic		Aircraft movements
1. Amsterdam Schiphol	64 million (+9.1%)	479K* (+6.3%)
2. Paris CDG	66 million (+0.3%)	473K (+0.8%)
3. London Heathrow	76 million (+1.0%)	473K (+0.2%)
4. Frankfurt	61 million (- 0.4%)	463K (- 1.1%)
5. Istanbul Atatürk	60 million (- 2.0%)	452K (+1.1%)

* excluding general aviation
(source: airport reports, January)

Top 10 airport pairs (total flights in both directions) in 2016 (vs. 2015):

Rank	Departure Airport	Arrival Airport	Average Daily Movements	Growth on 2015
1	Istanbul Atatürk	Izmir	55	-6.4%
2	Istanbul Sabiha Gökcen	Ankara	53	21.0%
3	Oslo	Trondheim	53	1.9%
4	Oslo	Bergen	49	2.3%
5	Istanbul Sabiha Gökcen	Izmir	49	6.4%
6	Paris Orly	Toulouse	48	2.5%
7	Madrid	Barcelona	45	-2.7%
8	Oslo	Stavanger	44	-0.1%
9	Istanbul Sabiha Gökcen	Antalya	44	2.8%
10	Berlin Tegel	Munich	42	5.0%

(source: EUROCONTROL, January)

Top 5 airport pairs adding the most flights in 2016 (vs. 2015):

Rank	Departure Airport	Arrival Airport	Average Daily Movements	Change on 2015
1	Lisbon	Porto	40	+ 16 flights/day
2	Istanbul Sabiha Gökcen	Ankara	53	+ 9 flights/day
3	Berlin Schönefeld	Cologne-Bonn	14	+ 7 flights/day
4	Dublin	Liverpool	14	+ 7 flights/day
5	London Luton	Copenhagen	15	+ 7 flights/day

(source: EUROCONTROL, January)

Top 5 airport pairs removing the most flights in 2016 (vs. 2015):

Rank	Departure Airport	Arrival Airport	Average Daily Movements	Change on 2015
1	Moscow Domodedovo	Antalya	2	- 9 flights/day
2	Moscow Domodedovo	Hurghada	none	- 9 flights/day
3	London Heathrow	Edinburgh	29	- 9 flights/day
4	Moscow Sheremetyevo	Kiev	none	- 8 flights/day
5	Moscow Sheremetyevo	Antalya	11	- 8 flights/day

(source: EUROCONTROL, January)

Low-cost airlines airport, London Stansted has announced expansion plans for a new arrival terminal to be built and operational by 2022 in order to be able to handle up to 43 million passengers from 24 million at present (Stansted airport, December).

It is reported that the opening of Berlin Brandenburg airport will be delayed for the fourth time since 2011, now until 2018 due to persistent problems with the smoke extraction systems. Berlin's airports, Schönefeld and Tegel have handled 33 million passengers in 2016, up 11% on 2015. New Brandenburg which has a declared capacity of circa 28 million passengers per year is supposed to absorb both airports passenger traffic (BER, 13 January & Deutsche Welle, 21 January).

Eilat's new Ramon airport will replace Eilat Ovda and be able to handle from two million passengers when it opens in April 2017 to over 4 million passengers by 2030. Eilat Ovda handled circa 130,000 passengers in 2016. The new airport will handle low-cost and charter flights from Europe and the Russian Federation (Ramon airport, January).

Aircraft manufacturing

Boeing reported net commercial orders for 668 aircraft in 2016 (down 13% on 2015) and delivered 748 aircraft (down 2% on 2015) of which 490 B737s aircraft, 137 B787s aircraft, 99 B777s aircraft, 13 B767s aircraft and 9 B747s aircraft (Boeing, January).

Airbus recorded 731 net commercial orders in 2016 (down 32% on 2015) and delivered 688 aircraft (up 8% on 2015) of which 545 A320s aircraft, 66 A330s aircraft, 49 A350s aircraft and 28 A380s aircraft (Airbus, January).

ATR reported 36 firm orders in 2016 (down 53% on 2015) and delivered 80 aircraft (down 9% on 2015) (ATR, 23 January).

Embraer reported 108 commercial deliveries in 2016 (up 7% on 2015) of which 90 E175s aircraft, 11 E190s aircraft and 7 E195s aircraft (Embraer, 13 January).

Due to weak demand for its Airbus A380 aircraft -only 2 firm orders in 2016- the manufacturer will seek to cut fixed costs and reduce production to 12 A380 aircraft per year from 2018. Airbus delivered 28 A380 aircraft in 2016 and has a backlog of 112 A380s out of a total of 349 A380s orders to date (Airbus, January).

Regulation

EC has ordered Ryanair and Aer Lingus to pay to the Irish government illegal state-aid from which both airlines have benefited with regard to reduced air travel tax between 2009 and 2011 (European Court of Justice, 21 December).

The UK government has announced measures to cut night flight noise at Heathrow, Gatwick and Stansted airports. The proposed measures which set a new cap for the number of night flights from Heathrow and Gatwick and end exemptions for 1,700 night flights from Stansted have been put out for public consultation. The current night flight rules will expire in October and the new restrictions will last until 2022 with no impact on the planned expansion of Heathrow (UK Government, 12 January).

Oil

Oil prices climbed to a monthly average of €52 per barrel in January. Converted indices for Kerosene and Brent are shown in Figure 8.

Oil prices averaged out at €41 per barrel in 2016. In its January short-term energy outlook, EIA forecasts Brent crude oil prices to average €50 per barrel ($53) in the first half of 2017 and €51 per barrel ($54) in the second half of 2017. This is an increase of $2 per barrel compared with the forecast issued in December and results from the decision between OPEC and non-OPEC producers to cut crude oil supply by 1.2 million barrels/day from January onwards (EIA, 10 January).

Fares

Ticket prices in Europe decreased by 0.6% in December 2016 vs. December 2015. This is above the trend (12-month trailing average) shown in Figure 9 and can be attributed to the oil price increase in December which was up 30% on the monthly average for 2016. (Eurostat, 16 December).

In 2016 Airline ticket price growth in Europe has decelerated since the beginning of the year at least until November, resulting from a drop in oil prices and increased competition among the airlines. Tickets were on average 3% cheaper in 2016 compared with 2015. The peak in March 2016 was mostly driven by Easter.

Note: to eliminate the influence of inflation on euro figures, the ticket price is deflated with a price index. The STATFOR deflated ticket prices are estimated in 2015 constant euros. A detailed explanation of the mechanism can be found here.

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