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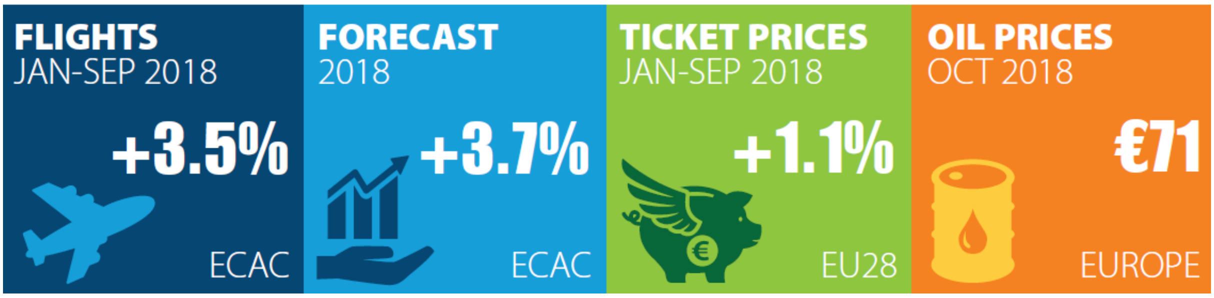
- **Since the beginning of 2018 (January-September), European flights remained on average 3.5% above the 2017 levels. Growth in the summer months (June to August) was particularly strong and averaged at 3.8%. The updated forecast is for 3.7% more flights for Europe in 2018.**
- **IATA has forecast global air passenger numbers to double by 2037 to 8.2 billion per year.**
- **Airline ticket prices were on average 1.1% more expensive during the first nine months of 2018 compared with a year ago.**
- **Oil prices have risen to a four-year high in October to hit €71 per barrel and were up 25% on January 2018.**



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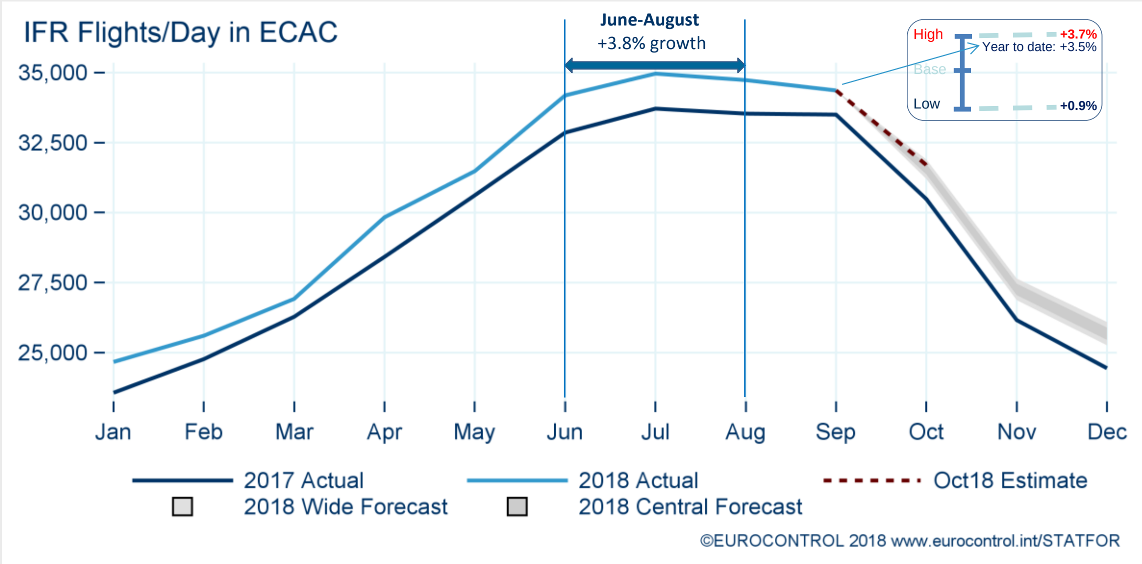

Figure 1: Monthly European Traffic and Forecast (based on the 7-year forecast Oct 2018).

EUROCONTROL Statistics and Forecasts

Since the beginning of 2018 (January-September), European flights (ECAC – European Civil Aviation Conference area) remained on average 3.5% above the 2017 levels (Figure 1). Growth in the summer months (June to August) was particularly strong and averaged at 3.8%. Robust flows to Turkey and Greece, the recovery of Russian traffic to Mediterranean destinations along with European tourist flows to Israel, Egypt and Tunisia contributed to the overall growth.

Preliminary data for October 2018 show average daily flights up 4.1% on October 2017.

The updated Seven-Year Forecast of Flight Movements 2018-2024 (October 2018) is for 3.7% more flights for Europe (ECAC area) in terms of IFR movements in 2018 (detail per state in Figure 2) compared with 3.3% in the forecast published in February, this upward revision is mainly due to trends of sustained growth in Eastern Europe. (EUROCONTROL STATFOR, October).

Main contributors to flight growth in Europe during January-September 2018

11 states added more than 50 flights per day to the European local traffic growth (excluding overflights) during the first nine months of the year (vs. same period in 2017). The top five contributors were Turkey (+192 flights/day) owing to its flows to and from the Russian Federation and to and from North western Europe, Spain (excl. Canary Islands) (+160 flights/day), Germany (+158 flights/day), Poland (+137 flights/day) and Greece (+133 flights/day). Italy (+104 flights/day), Israel (+80 flights/day), Ukraine (+61 flights/day), Portugal (excl. Azores) (+55 flights/day), Finland (+52 flights/day) and Canary Islands (+50 flights/day) completed the list of the main contributors to the network.

At the other end of the scale, only two states recorded fewer flights during that period, and they were UK (-33 flights/day) owing to its weak domestic flow and to its flow to and from South West Europe which saw 18 fewer flights per day and Sweden which recorded 11 fewer flights per day, concentrated on its internal flow (EUROCONTROL STATFOR, October).

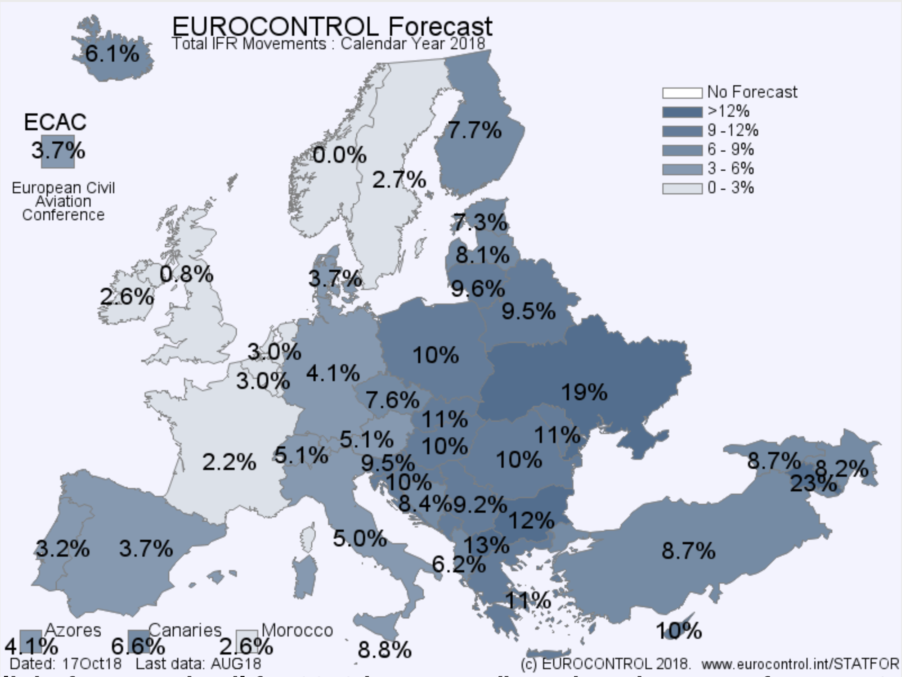

Figure 2:Flight forecast detail for 2018 in Europe (based on the 7-year forecast Oct 2018).

Flight growth by market segment during January-September 2018

The charter segment was the fastest contributor to growth with an increase of 16.3% in 2018 (vs. same period in 2017). The traditional scheduled segment recorded a 4.7% increase and surpassed the low-cost segment which has been decelerating in 2018 to record a 1.6% increase mainly following the closures of Air Berlin. The business aviation segment grew 1.8% while the all-cargo segment declined 0.7% (EUROCONTROL STATFOR, October).

Ex-Europe (ECAC) contributors to the flight growth during January-September 2018

The top five extra European partners (for average daily flights on flows in both directions and growth on 2017) were the United States with 1,051 flights (+5% on Jan-Sep 2017) closely followed by the Russian Federation with 984 flights (+12%), Israel with 363 flights (+11%), Morocco with 347 flights (+10%) and the United Arab Emirates with 340 flights (+4%). Also to be noted was the continued recovery of flows between Europe and Egypt with 251 flights (+35%) and were back to the levels of 2012. Flows between Europe and Tunisia continued to recover and recorded 151 flights per day, an increase of 21% on January-August 2017 (EUROCONTROL STATFOR, October).

Top five airlines adding the most flights during January-September 2018

The aircraft operators which added the most flights to the network on a daily basis during the first nine months of 2018 (vs. same period in 2017) were easyJet UK (+140 flights), Ryanair (+103 flights), Lufthansa (+90 flights), Turkish Airlines (+83 flights) and Wizz Air Hungary (+80 flights) (EUROCONTROL STATFOR, October).

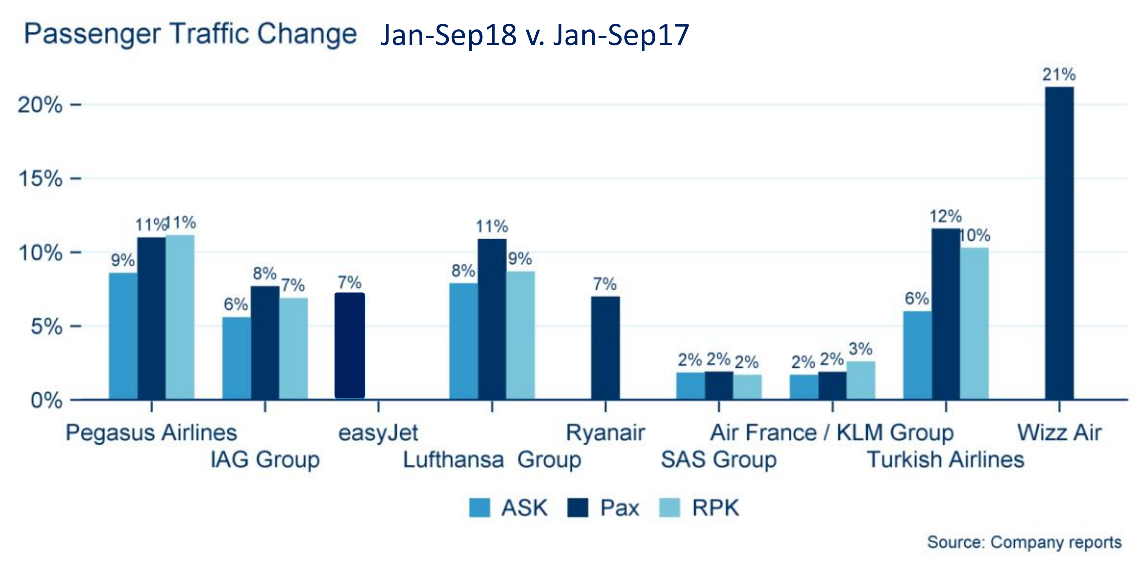

Figure 3: Main carriers' traffic statistics.

ATFM Delay in Europe during January-September 2018

The European network was severely disrupted this summer due to the combination of high levels of demand with a major drop in capacity at two Area Control Centres (ACC) in the core area (Karlsruhe and Marseille ACCs combined caused 36% of all en-route ATFM delays) and a record number of adverse weather events mostly in North West and Central Europe and the Balkan peninsula and industrial actions (France, Greece and Italy). The en-route ATFM delay at the end of September was 2.01 minutes per flight – more than double of that of last year. Airport ATFM delay was 0.6 minutes per flight, a 6% decrease compared to 2017. Industrial actions caused 1.3 million minutes of delay, 60% more than the whole year of 2017. Most of this delay was due to strikes in Marseille ACC. There were 19 strike days with severe ATFM impact in this ACC from March to June, including one national strike. These affected mainly Marseille, but also the neighbouring ACCs (EUROCONTROL, October).

Other Statistics and Forecasts

In its updated 20-Year Air Passenger Forecast, IATA expects airlines to carry 8.2 billion passengers in 2037 doubling the passenger numbers projected in 2018 with a 3.5% compound annual growth rate (CAGR). IATA noted that strong growth in passenger traffic will be driven by a shift towards the Asia-Pacific region and also warned that restrictive trade protectionist measures could negatively impact the global growth. For Europe, IATA forecasts air passenger numbers to grow by a CAGR of 2% to reach 1.9 billion passengers in 2037 (IATA, 24 October).

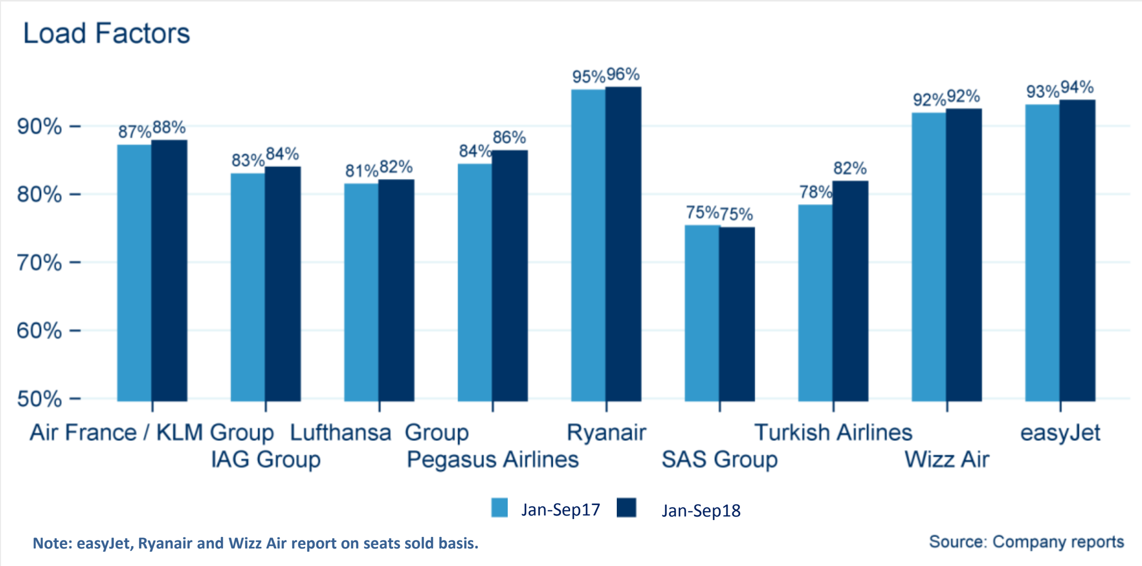

Figure 4: Main carriers' load factors.

Passenger airlines

Traffic Statistics: January - September 2018

Figure 3 and Figure 4 compare January-September 2018 figures with January-September 2017 figures for most of the main European carriers. In addition to the number of passengers (PAX), passenger capacity is measured in available seat kilometers (ASK), traffic is measured in revenue passenger kilometers (RPK) and load factor as a percentage (%).

Capacity, costs and jobs

Turkish Airlines launched operations at the new Istanbul Airport on 31 October with five domestic routes to Ankara, Antalya, Baky, Ercan and Izmir. All the airline's services will move from Istanbul Ataturk to the new Istanbul Airport on 30 and 31 December (Turkish Airlines, 31 October).

Following the acquisition by Ryanair of a 75% stake in Laudamotion (ex-Fly Niki), the latter will double its Airbus fleet from 9 to 18 aircraft during the Summer 2019 schedule (Ryanair, September).

A new long-haul low-cost airline project "Swiss Skies" is reportedly looking for investors to launch transatlantic flights from Basel in the course of 2019. The project is in response to the recent collapse of a number of European airlines (Financial Times, 9 September).

Air France-KLM and French unions representing over 75% of Air France's workers have signed an agreement regarding pay increase thereby putting an end to a long-standing dispute which resulted in numerous strikes over the past months (Air France-KLM, 19 October).

Air France-KLM will increase its capacity by 2.5% for the winter 2018/19 season (vs. Winter 2017-18) and add 44 new routes to its network of which 18 new routes for its low-cost subsidiary,Transavia (Air France-KLM, 18 October).

Lufthansa CityLine will start operating Airbus A320 family aircraft on its regional network taken over from Lufthansa parent company . The move was made possible after Lufthansa CityLine and pilot union Vereinigung Cockpit agreed on new employment conditions for circa 650 pilots, securing a new aircraft type. Lufthansa CityLine will start operating the first A319-100 from its Munich hub in spring 2019 and five additional aircraft will follow by the end of 2020 (Lufthansa Group, 12 October).

Lufthansa has converted 27 Airbus (24 A320neo aircraft and 3 A321neo aircraft) into firm orders for the Group's European expansion. Deliveries are scheduled between 2023 and 2024 and 10 of the 27 units are intended for SWISS (Lufthansa Group, September).

Ryanair will close its bases at Eindhoven (4 aircraft) and Bremen (2 aircraft) and reduce from 5 to 3 the number of aircraft at its Niederrhein base to cut capacity this winter. These measures were in response to lower fares, higher oil prices, summer staff strikes which have lowered the carrier's full year profit guidance (Ryanair, 1 October).

Ryanair has been hit by a wave of pilot and cabin crew strikes in Spain, Italy, Portugal, Germany, Belgium and the Netherlands during the past months resulting in hundreds of flight cancellations. The airline flight growth decelerated and averaged 4% during the summer (Jun-Sep 2018) when it averaged 9% during the same period last year. Ryanair agreed to recognise unions in December 2017 and has to date signed labour agreements with unions in Belgium, Spain, Portugal UK, Ireland, Italy and Germany. The carrier continues to negotiate with unions across Europe to offer national contracts and national legislation (Ryanair, August to November).

It is reported that flag carrier Icelandair will take over low-cost WOW. Both Icelandic airlines have been facing financial difficulties resulting from higher oil prices and heavy competition on transatlantic routes. The purchase agreement is subject to the approval of the Icelandic Competition Authority (the Economist, 5 November).

Albania's new flag carrier, Air Albania has reportedly launched with one Airbus A319 aircraft. The maiden flight from Istanbul to Tirana took place on 15 September, the airline's sole route. Other destinations will include Italy and London. Turkish Airlines owns a 49% stake in the new Albanian carrier (Reuters, 28 September).

Failures

Rising fuel costs associated with intense competition pressure have forced a number of European airlines to cease operations in the recent months of 2018:

- VLM (Belgium), 31 August
- Small Planet (Germany), 19 September
- SkyWork Airlines (Switzerland), 19 September
- Primera Air (Denmark/Latvia), 1 October
- Cobalt Air (Cyprus), 18 October

(source: Company reports)

Air Belgium which started scheduled operations last June with one single route, Charleroi-Hong Kong suspended operations until March 2019 (Air Belgium, 21 September).

Routes, Alliances, Codeshares

Wizz Air will close its Poznan base on 30 March 2019 and terminate five routes (to Dortmund, Keflavik, Birmingham, Malmö and Stockholm Skavsta) out of the 11 routes served from the Polish airport. The carrier will reallocate the capacity to other Polish routes with higher demand and launch 7 new routes from Polish airports with the start of the summer 2019 schedule (Wizz Air, 18 September).

Wizz Air will launch two new routes to Eilat (Ovda) from Budapest and Sofia in the course of November. The airline started routes to Israel in 2012 and currently operates 25 routes to 9 countries from Eilat and Tel Aviv.

Ryanair will expand its route network in Poland with the addition of 17 new routes with the start of the Summer 2019 schedule and a total of 210 routes from Poland (Ryanair, 5 September).

Ryanair will open two new bases in France in the course of its Summer 2019 schedule: Bordeaux with two new based aircraft and 16 new routes and Marseille with two aircraft and 11 new routes (Ryanair, 27 September).

Ryanair has launched flights to Ukraine in September and will be flying to 12 new routes from Kyiv Boryspil to Barcelona, Berlin Schonefeld, Bratislava, London Stansted, Stockholm, Vilnius and six destinations in Poland (Bydgoszcz, Gdansk, Krakow, Poznan, Warsaw Modlin and Wroclaw (Ryanair, September).

Laudamotion has launched three new routes from Berlin Tegel to Alicante, Marrakech and Naples and three new routes from Innsbruck to Dublin, Dusseldorf and London Stansted (Laudamotion, October).

Air France-KLM and Air Europa plan to enter into a joint venture on routes between Europe and Central and South America. Both airlines have currently code share agreements on circa 40 routes within Europe from Paris, Amsterdam and Madrid (Air France-KLM, August).

Norwegian Air Argentina has started operations on six domestic routes from Buenos Aires with one Boeing B737-800 aircraft. Norwegian Air Shuttle's subsidiary obtained its operating licence in January this year (Norwegian Air Argentina, October).

Air France is reportedly planning to reorganise its regional subsidiary Hop with a view to maintain a competitive cost structure. The new structure will include cutting 120 jobs, simplifying its fleet from five to three aircraft types and flying under Air France codes (Les Echos, 3 October).

TUIfly Nordic will reportedly close its three bases at Malmö, Oslo and Helsinki and will sign an agreement with Norwegian and Jet Time to run its short-haul operations in Europe from Copenhagen, Helsinki and Oslo. TUIfly Nordic currently operates a fleet four Boeing B737-800 and one Boeing B737 MAX8 aircraft. The closure of the three bases would impact 150 jobs (centre for aviation, 10 September).

Rank 2017	Rank 2018	Airport Name	Average Daily Flights Jan-Sep 2018	Growth on Jan-Sep 2017
1	1	Amsterdam	1,417	0.2%
4	2	Frankfurt	1,414	8.0%
2	3	Paris CDG	1,345	0.3%
3	4	London Heathrow	1,316	0.3%
5	5	Istanbul Ataturk	1,267	2.1%
6	6	Munich	1,128	0.9%
7	7	Madrid Barajas	1,125	5.5%
8	8	Barcelona	939	3.5%
9	9	Rome Fiumicino	853	2.1%
10	10	London Gatwick	802	-1.2%

Busiest Airports' share of total flights in Jan-Sep 2018 = 19%

Source: www.eurocontrol.int/statfor/sid

Figure 5: Main European airports during January-September 2018

Airports

Istanbul Airport was officially inaugurated on 29 October 2018. Once fully operational (2026), the airport will handle 200 million passengers per year. By the end of 2018, Istanbul Ataturk should terminate all operations.

During the first nine months of 2018 Amsterdam continued to be the busiest airport (arrivals + departures) in Europe although its growth has decelerated and was closely followed by Frankfurt which recorded the fastest growth (+8%) owing mainly to the low-cost and charter segments which grew 45% and 33% respectively compared with the same period in 2017. London Gatwick was the sole airport to record a decrease (-1.2%) which was linked primarily to the bankruptcy of Monarch Airlines in October last year. The top 10 European airports are listed in Figure 5.

Passenger traffic and commercial aircraft movements at top five European airports (based on the number of flights) during January-September 2018 (growth on the same period in 2017) were as follows:

Rank	Airport	Passenger traffic	Commercial Aircraft movements
1	Frankfurt	53.0 million (+ 8.4%)	386K (+ 8.0%)
2	Amsterdam	54.1 million (+ 3.8%)	378K (+ 0.1%)
3	Paris CDG	54.7 million (+ 3.6%)	361K (+ 0.3%)
4	London Heathrow	60.6 million (+ 2.5%)	358K (+ 0.2%)
5	Istanbul Ataturk	51.7 million (+ 7.8%)	344K (+ 3.7%)

Source: Airport reports, October

Top 10 busiest airports (arrivals+departures) for the traditional scheduled segment during January-September 2018 (growth on the same period in 2017) were as follows:

Rank	Airport Name	Average Daily Arrivals/Departures in Jan-Sep 2018	Growth on Jan-Sep 2017
1	London Heathrow	1,251	0%
2	Frankfurt	1,207	5%
3	Istanbul Ataturk	1,084	5%
4	Paris CDG	1,037	0%
5	Amsterdam	985	1%
6	Munich	925	5%
7	Madrid Barajas	735	5%
8	Rome Fiumicino	627	3%
9	Zurich	601	6%
10	Vienna	514	7%

Source: EUROCONTROL/STATFOR/SID

Top 10 busiest airports (arrivals+departures) for the low-cost segment during January-September 2018 (growth on the same period in 2017) were as follows:

Rank	Airport Name	Average Daily Arrivals/Departures in Jan-Sep 2018	Growth on Jan-Sep 2017
1	Barcelona	615	4%
2	London Gatwick	533	-7%
3	London Stansted	459	6%
4	Palma De Mallorca	375	-5%
5	Manchester	366	-3%
6	Istanbul Gokcen	365	4%
7	Amsterdam	341	1%
8	Dusseldorf	316	-21%
9	Madrid Barajas	307	7%
10	London Luton	274	-1%

Source: EUROCONTROL/STATFOR/SID

The significant decreases at Dusseldorf, London Gatwick and Palma de Mallorca were the result of the collapse of Air Berlin, Monarch Airlines and NIKI respectively last year.

Top 10 busiest airports (arrivals+departures) for the charter segment during January-September 2018 (growth on the same period in 2017) were as follows:

Rank	Airport Name*	Average Daily Arrivals/Departures in Jan-Sep 2018	Growth on Jan-Sep 2017
1	Antalya	176	21%
2	Moscow Domodedovo	41	6%
3	Warsaw	41	32%
4	Kiev Borispol	40	12%
5	Tel Aviv	39	-2%
6	Hurghada	38	68%
7	Heraklion	37	-2%
8	Palma de Mallorca	36	0%
9	Sharm El Sheikh	35	79%
10	Katowice	33	32%

Source: EUROCONTROL/STATFOR/SID

*Helicopter flights were not included in this ranking and out of ECAC area airports include only European flights.

The charter segment recorded the fastest growth in 2018 (Jan-Sep vs. year-ago period) owing mainly to the recovery of tourist flows from Ukraine to Egypt and from Germany to Egypt but also flows from Poland to Turkey and Greece.

Cargo

Top 10 busiest airports (arrivals+departures) for the all-cargo segment during January-September 2018 (growth on the same period in 2017) were as follows:

Rank	Airport Name	Average Daily Flights in Jan-Sep 2018	Growth on Jan-Sep 2017
1	Leipzig	127	17%
2	Paris CDG	90	2%
3	Cologne Bonn	74	-2%
4	Liege	71	7%
5	East Midlands	71	14%
6	Frankfurt	52	4%
7	Istanbul Ataturk	47	1%
8	Brussels	36	1%
9	Amsterdam	34	-12%
10	Luxembourg	29	1%

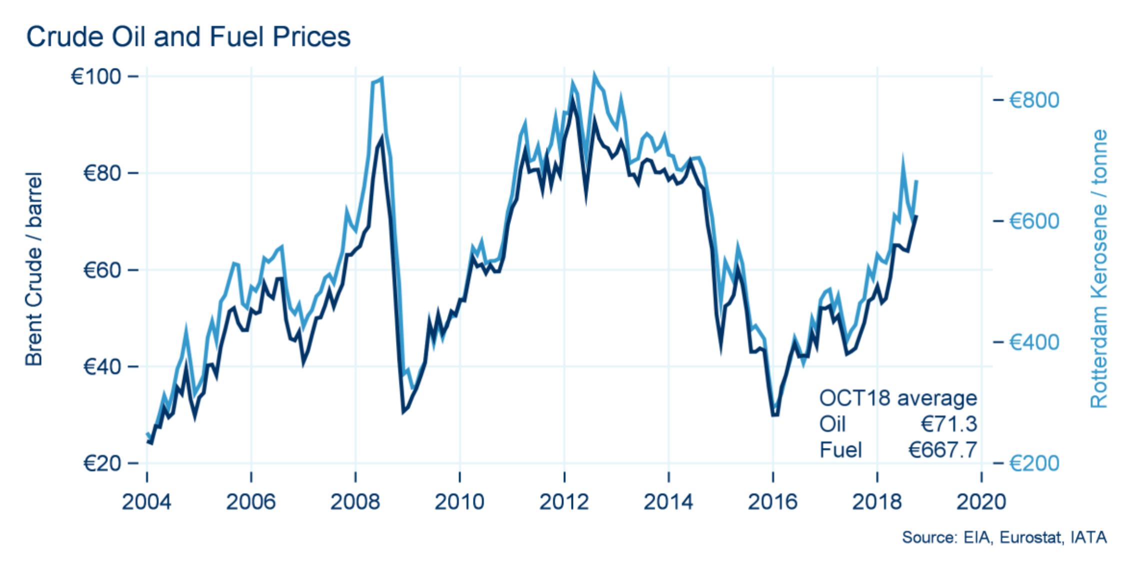

Figure 6: Brent and kerosene prices.

Aircraft Manufacturing

Airbus reported 503 aircraft deliveries during the first nine months of 2018 (up 11% on the year-ago period) of which 403 single aisle aircraft, 31 A330 aircraft, 61 A350 aircraft and 8 A380 aircraft. Airbus recorded net commercial orders for 256 aircraft (Airbus, October).

Boeing reported 631 aircraft deliveries during the first nine months of 2018 (up 14% on the year-ago period) of which 448 B737 aircraft, 14 B747 aircraft, 38 B767aircraft, 27 B777 aircraft and 104 B787 aircraft. The manufacturer recorded 568 net commercial orders (Boeing, October).

Bombardier has sold its Q400 turboprop production to Viking Air (Canada). This restructuring will result in a reduction of circa 5,000 jobs. Bombardier already sold a majority stake in its C Series program to Airbus (rebranded as A220 aircraft) last July (Bombardier, 8 November).

Oil

Brent crude oil prices averaged €61 per barrel for the first nine months of 2018 and fluctuated between €53 and €68 during that period. Oil prices have risen to a four-year high in October to hit €71 per barrel. Since January this year, crude oil prices have risen 25%. Converted indices for Kerosene and Brent are shown in Figure 6.

In its Short-Term Energy Outlook, EIA reported that crude oil prices will average $73 per barrel in 2018 and $73 per barrel in 2019. For reference, in 2017 Brent crude oil averaged $54 per barrel (EIA, 6 November).

In its Annual Energy Outlook 2018 (published in February 2018), EIA forecast the average price of Brent crude oil to rise to $86* per barrel in 2025 to reach $114* per barrel in 2050. (*expressed in 2017 dollars to remove the effect of inflation).

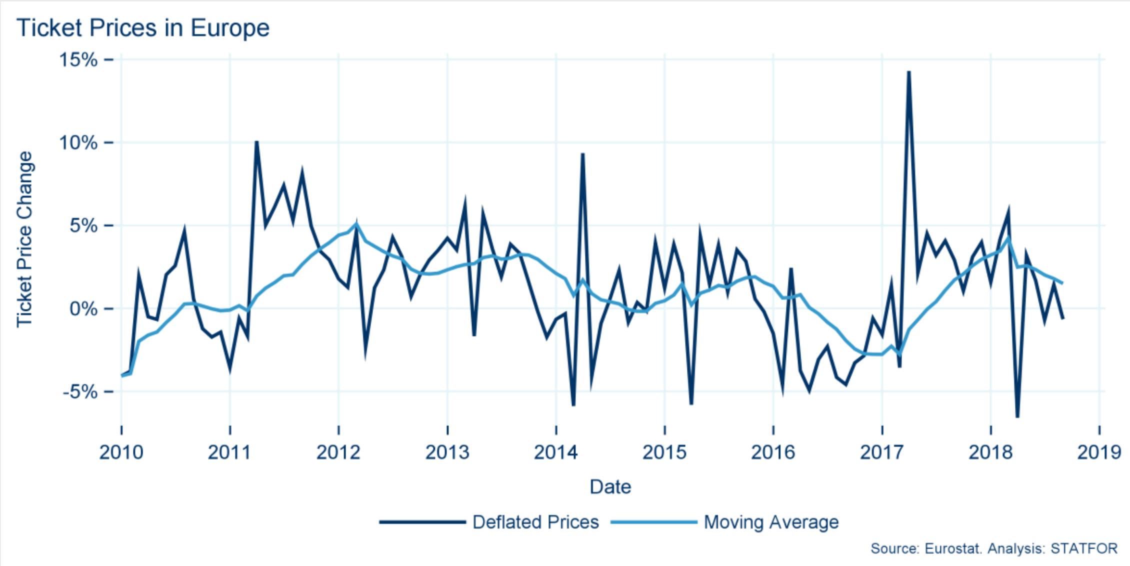

Figure 7: Deflated ticket prices in Europe.

Economy

In its Autumn 2018 European Economic forecast, the European Commission estimations in the Euro area were as follows (comparison with Spring 2018 in percentage points):

	Actual 2017	Forecast 2018	Forecast 2019	Forecast 2020
GDP	2.4%	2.1% (-0.2)	1.9% (-0.1)	1.7%
Inflation	1.5%	1.8% (+0.3)	1.8% (+0.2)	1.6%
Unemployment	9.1%	8.4% (+0.0)	7.9% (+0.0)	7.5%

(EUROPA, 8 November).

Fares

Ticket prices in Europe increased by 1.1% during the first nine months of 2018 (vs. same period in 2017). This is below the trend (12-month trailing average) shown in Figure 7. Ticket prices started to decrease in the summer months (June-September +0.4% on average) (Eurostat, 2 November).

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.

Regulation

The Norwegian government has proposed to increase by 150% (from 80 to 200 NOK) the levy on long-haul airline tickets and to reduce it by 6% (from 80 to 75 NOK) for short-haul travel in Europe. The proposal is part of a plan to use taxation to fight climate change and if approved would be enforced from 1 April 2019 (Norwegian government, 8 October).

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STATFOR, the EUROCONTROL Statistics and Forecast Service

Lloyd's Register

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