

Global Aviation Monitor (GAM)

Analysis and Short Term
Outlook of Global, European
and German Air Transport

March 2018



Main Results of Global Air Transport Supply Analysis and Outlook

Background:

- Covers about 3,500 airports worldwide
- Covers about 850 airlines worldwide
- Air transport supply of 2017: More than 37 M flights (non-stop) worldwide, new record value
- Busiest month 2018: March with 3.2 M flights
- Air traffic increases slowly since April 2013
- Forecasting methodology: Time series analysis
- The mean absolute forecast error over a twelve month period typically lies in a range of between 0.5 and 1.5 percentage points for a forecast horizon of 1, 2 & 3 months.

Analysis: April 2017 – March 2018

Global

- History: About 5% growth per year before financial crisis 2008/2009, then a rapid decline of more than 9% between February 2008 and February 2009, followed by a rather slow recovery until 2011 (7.2% increase between February 2009 and February 2011). Since 2011, the number of flights grows only very slowly; stagnation between September 2012 and March 2013, small growth rates since April 2013; growth rates of around 3% since March 2015, 3.0%-6.3% between December 2015 and March 2018
- March 2018: 3.2 M flights supplied (+5.5%)
- Airports: Heterogeneous development of no. of flights offered; strong growth e.g. at Shanghai, Jakarta, Frankfurt and Dehli (5% and more)
- Airlines: Heterogeneous development of no. of flights offered; strong growth e.g. of Turkish Airlines and IndiGo; some airlines with decrease, e.g. Qantas and SAS

World Regions, Europe

- In Europe, 4.3% traffic increase; in Asia continued growth around 10%
- Airports: Heterogeneous developments of no. of flights offered; strong increase e.g. at Moscow and Lisbon, however, decline at some airports, e.g. Dusseldorf and Oslo
- Airlines: Heterogeneous developments of flights, some airlines, e.g. Lufthansa, TAP and LOT with strong growth, strong growth in the low cost segment, e.g. Wizz; new: Eurowings (former Lufthansa and germanwings flights in Germany and Europe are now operated by Eurowings except at Frankfurt; long-haul low cost flights from Cologne and Dusseldorf). Air Berlin: insolvency: parts of Air Berlin went to Lufthansa/Eurowings: LGW; Easyjet acquired parts of Air Berlin. Some airlines, e.g. Alitalia and Swiss with decrease

Germany

- Airports: Some bigger airports, e.g. Frankfurt and Stuttgart with strong growth, some small airports e.g. Memmingen, with traffic growth; some German airports with downward trend, e.g. Dresden, Berlin-Tegel
- Airlines: Heterogeneous developments of number of flights offered; strong growth of e.g. Easyjet; some airlines, e.g. British Airways with decreasing traffic

Outlook: April 2018 – June 2018

Global

- For the next few months, a traffic growth of around 5 % is expected

World Regions, Europe

- For the next few months, a traffic growth between + 4 % and + 5 % is expected

Germany

- For the next few months, a traffic growth between 0 % and + 1 % is expected

Rank	Airport	03/2018	Growth rate
1	Atlanta Hartsfield-Jackson Intl	37.638	1,5
2	Chicago O'Hare International	36.444	3,9
3	Los Angeles International	27.735	1,1
4	Dallas/Fort Worth Intl	26.804	0,0
5	Beijing Capital	26.184	2,7
6	Denver Intl	23.251	-1,9
7	Shanghai Pudong International	21.845	6,6
8	Charlotte	21.828	-0,6
9	Jakarta Soekarno-Hatta	20.785	6,7
10	Frankfurt International	20.236	9,5
11	London Heathrow	20.153	1,3
12	Amsterdam	20.118	3,5
13	Guangzhou	19.923	6,4
14	Delhi	19.543	10,0
15	Tokyo Haneda	19.213	1,7
16	Toronto Lester B Pearson Intl	19.052	4,7
17	Houston George Bush Intercontinental	19.005	0,6
18	Paris Charles de Gaulle	18.504	2,7
19	Istanbul Ataturk	18.295	4,7
20	San Francisco International	18.285	5,9
21	New York J F Kennedy International	18.269	-0,9
22	Newark Liberty International	17.763	2,4
23	Phoenix Sky Harbor Intl .	17.572	1,3
24	Mexico City Juarez International	17.478	0,4
25	Hong Kong International	17.401	2,1

Tab. 1: Number of monthly Take-offs at the largest Airports in the World

Rank	Airport	03/2018	Growth rate
1	Frankfurt International	20.236	9,5
2	Munich International	16.001	-0,7
3	Dusseldorf International	7.878	-9,3
4	Berlin Tegel	6.816	-8,3
5	Hamburg	5.399	-7,9
6	Stuttgart	4.047	10,9
7	Cologne/Bonn K.A.	3.572	-1,1
8	Berlin Schoenefeld	3.457	-4,0
9	Hanover	1.910	4,7
10	Nuremberg	1.508	-2,8
11	Bremen	861	2,6
12	Leipzig/Halle	790	2,6
13	Dresden	749	-9,0
14	Frankfurt Hahn	609	6,8
15	Dortmund	587	19,6
16	Munster	374	9,0
17	Dusseldorf Niederrhein	363	13,1
18	Memmingen	329	32,1
19	Karlsruhe/Baden Baden	274	-14,9
20	Saarbrücken Ensheim	219	-3,1
21	Friedrichshafen	210	-27,8
22	Paderborn	168	7,0
23	Rostock-Laage	110	44,7
24	Mannheim	96	6,7
25	Erfurt	51	-7,3

Tab. 3: Number of monthly Take-offs at the largest Airports in Germany

Rank	Airport	03/2018	Growth rate
1	Frankfurt International	20.236	9,5
2	London Heathrow	20.153	1,3
3	Amsterdam	20.118	3,5
4	Paris Charles de Gaulle	18.504	2,7
5	Istanbul Ataturk	18.295	4,7
6	Munich International	16.001	-0,7
7	Madrid Barajas	15.612	3,2
8	Moscow Sheremetyevo International	13.014	17,1
9	Barcelona	12.271	4,6
10	Rome Fiumicino	11.663	2,0
11	London Gatwick	10.859	-0,1
12	Copenhagen	10.146	-2,9
13	Stockholm Arlanda	9.868	-3,3
14	Zurich	9.792	3,2
15	Oslo	9.768	-3,9
16	Paris Orly	9.453	-1,7
17	Vienna	9.119	5,6
18	Istanbul Sabiha Gokcen	8.864	6,3
19	Dublin	8.619	6,6
20	Moscow Domodedovo	8.350	5,1
21	Brussels	8.291	-3,2
22	Lisbon	8.280	14,5
23	Dusseldorf International	7.878	-9,3
24	Helsinki	7.463	6,9
25	Manchester International	7.174	0,8

Tab. 2: Number of monthly Take-offs on the largest Airports in Europe

Source: OAG 2016/17, DLR 2016/17

Rank	Airline	03/2018	Growth rate
1	American Airlines	192.093	-0,5
2	Delta Air Lines	166.206	1,1
3	United Airlines	146.253	4,7
4	Southwest Airlines	119.922	1,5
5	China Southern Airlines	65.278	6,9
6	China Eastern Airlines	60.880	6,0
7	Ryanair	56.900	6,9
8	Air Canada	50.685	2,6
9	Lufthansa German Airlines	46.027	7,3
10	easyJet	45.215	9,1
11	Air China	41.325	8,3
12	Turkish Airlines	40.683	11,5
13	IndiGo Air	33.786	23,3
14	Alaska Airlines	32.367	3,1
15	All Nippon Airways	32.030	3,4
16	JetBlue Airways Corporation	31.978	2,2
17	British Airways	31.435	2,2
18	Air France	27.973	-0,5
19	Aeroflot Russian Airlines	26.702	4,9
20	SAS Scandinavian Airlines	25.141	-9,1
21	Japan Airlines International	24.981	3,4
22	Xiamen Airlines Company	24.129	26,8
23	Qantas Airways	22.894	-3,5
24	Hainan Airlines	22.489	25,3
25	Westjet	21.985	6,4

Tab. 4: Number of monthly Take-offs by the largest Airlines in the World

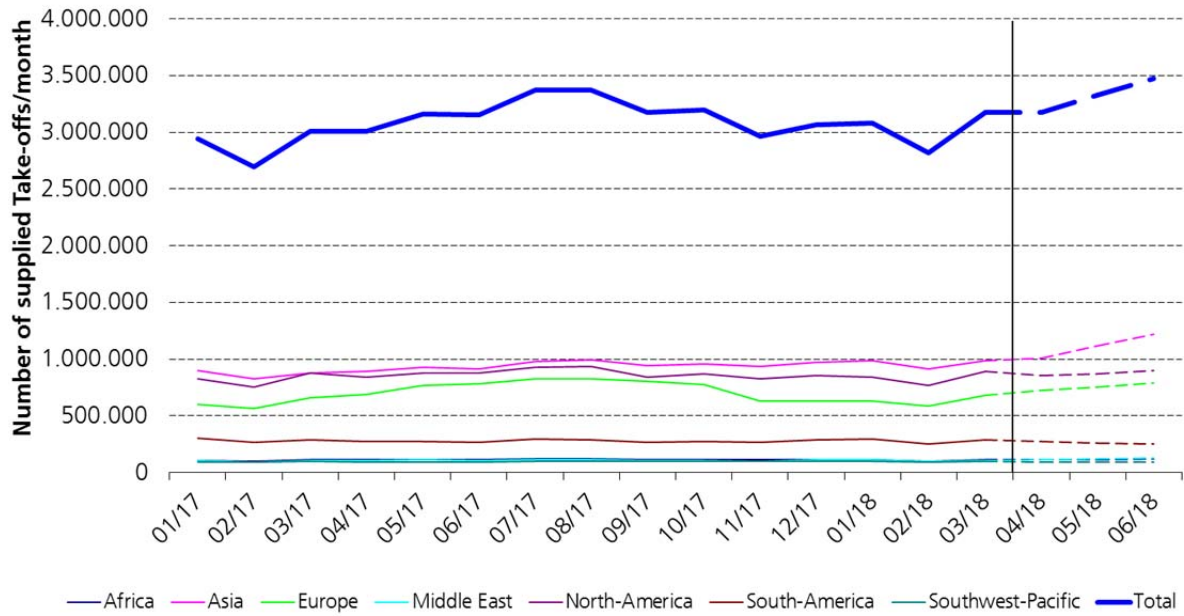
Rank	Airline	03/2018	Growth rate
1	Lufthansa German Airlines	28.362	7,3
2	Eurowings	12.330	247,7
3	Ryanair	4.389	16,0
4	easyJet	4.374	84,4
5	Austrian Airlines AG	1.488	15,2
6	British Airways	1.442	-2,2
7	KLM-Royal Dutch Airlines	1.347	6,2
8	Air France	1.211	2,9
9	Swiss	1.198	7,2
10	Turkish Airlines	1.146	5,1
11	Condor Flugdienst	1.107	21,1
12	SAS Scandinavian Airlines	945	-5,9
13	Wizz Air	894	24,5
14	TUIfly	878	28,2
15	Germania	857	29,7
16	Aeroflot Russian Airlines	782	0,8
17	British Midland Regional	682	17,6
18	SunExpress	576	16,8
19	LOT - Polish Airlines	538	28,7
20	Flybe	500	-7,7
21	Air Dolomiti	494	3,6
22	TAP Air Portugal	482	60,7
23	Luxair	456	42,5
24	Iberia	419	6,6
25	Pegasus Airlines	378	11,2

Tab. 6: Number of monthly Take-offs by the largest Airlines in Germany from German airports

Rank	Airline	03/2018	Growth rate
1	Ryanair	55.844	6,3
2	easyJet	44.674	9,0
3	Lufthansa German Airlines	42.399	7,7
4	Turkish Airlines	35.510	12,8
5	British Airways	25.902	2,0
6	SAS Scandinavian Airlines	24.743	-9,1
7	Air France	24.427	-1,1
8	Aeroflot Russian Airlines	22.627	5,0
9	KLM-Royal Dutch Airlines	19.047	7,0
10	Eurowings	18.698	212,2
11	Iberia	15.753	0,3
12	Flybe	15.221	-6,7
13	Vueling Airlines	15.127	16,0
14	Alitalia	14.062	-4,5
15	Pegasus Airlines	13.917	14,8
16	Wizz Air	13.625	20,1
17	Swiss	10.923	-1,2
18	Austrian Airlines AG	10.355	6,6
19	Finnair	10.054	6,7
20	TAP Air Portugal	9.985	19,1
21	Norwegian Air Shuttle	9.633	-6,7
22	Wideroe's Flyveselskap	9.571	-12,8
23	LOT - Polish Airlines	9.412	15,5
24	Aer Lingus	7.673	0,6
25	Norwegian Air International	7.360	28,9

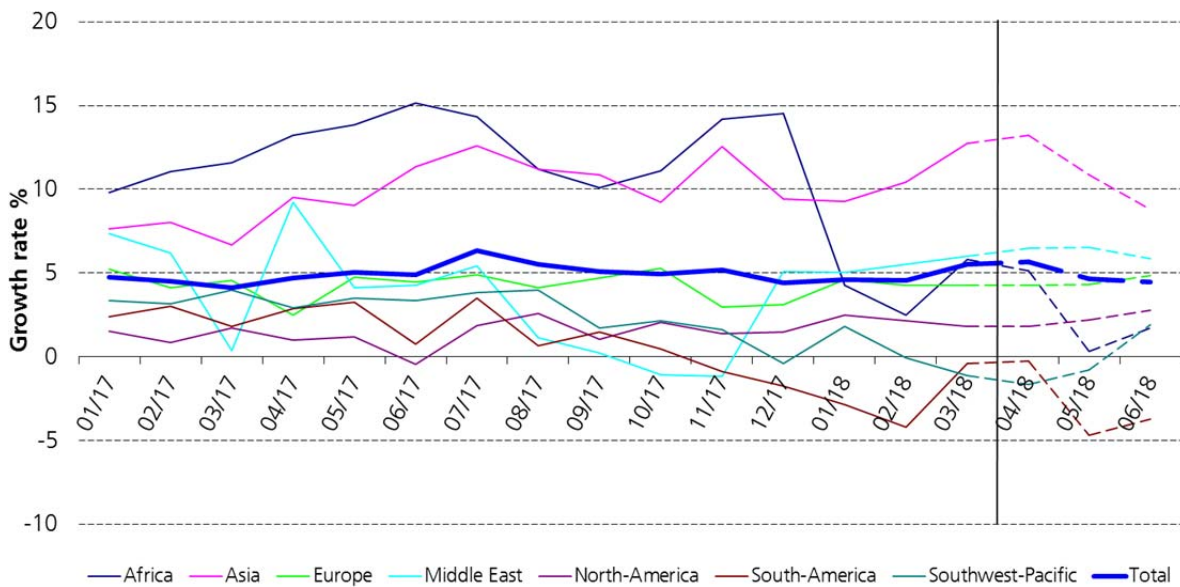
Tab. 5: Number of monthly Take-offs by the largest Airlines in Europe from European airports

Source: OAG 2016/17, DLR 2016/17



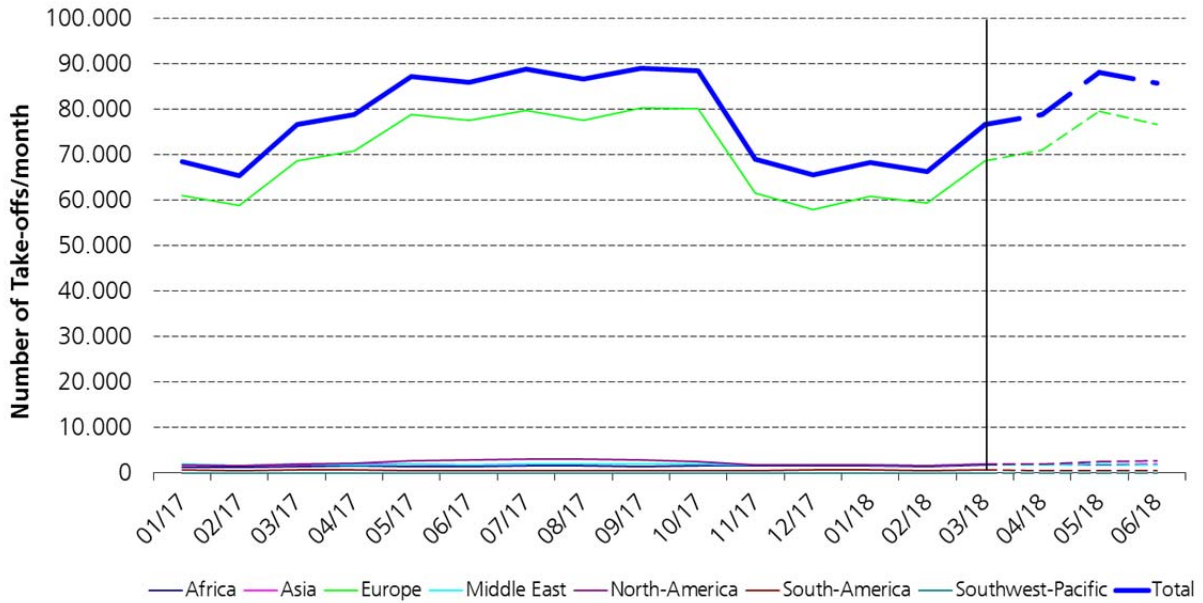
Source: OAG 2017/2018, DLR 2017/2018

Fig. 1: Development of the Global Air Transport Supply



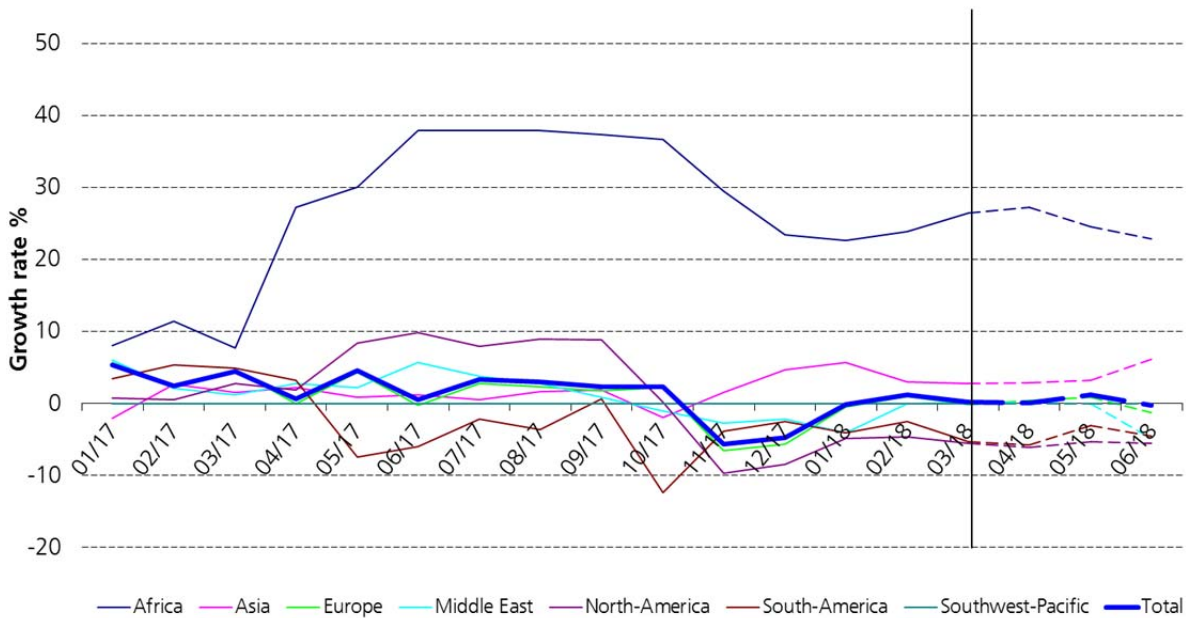
Source: OAG 2017/2018, DLR 2017/2018

Fig. 2: Changes in the Global Air Transport Supply



Source: OAG 2017/2018, DLR 2017/2018

Fig. 3: Development of the German Air Transport Supply



Source: OAG 2017/2018, DLR 2017/2018

Fig. 4: Changes in the German Air Transport Supply

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