

# Global Aviation Monitor (GAM)

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

March 2017



## 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 2016: More than 35 M flights (non-stop) worldwide, new record value
- Busiest month 2017: March with 3.0 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 2016 – March 2017

#### Global

- March 2017: 3.0 M flights supplied (+4.1%)
- 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% - 5.3% between December 2015 and March 2017
- Airports: Heterogeneous development of no. of flights offered; strong growth e.g. at Los Angeles, Guangzhou, Shanghai, Amsterdam and Dehli (5% and more)
- Airlines: Heterogeneous development of no. of flights offered; strong growth e.g. of Ryanair, easyjet and IndiGo; some airlines with decrease, e.g. Gol and Turkish Airlines

#### World Regions, Europe

- Overall small increase since April 2013; in Europe, small traffic increase since July 2013; in Asia continued growth; strong growth in Africa; small growth in North America
- Airports: Heterogeneous developments of no. of flights offered; strong increase e.g. at Amsterdam, Munich, Moscow Sheremetyevo, Stockholm and Dusseldorf however decline at some airports, e.g. Istanbul and Rome Fiumicino
- Airlines: Heterogeneous developments of flights, some airlines, e.g. SAS and Aeroflot with strong growth, strong growth in the low cost segment, e.g. Wizz, flybe, Ryanair and easyjet; new: Eurowings (former Lufthansa and germanwings flights in Germany and Europe are now operated by Eurowings except at Frankfurt and Munich; long-haul low cost flights from Cologne), some airlines, e.g. Turkish Airlines with decrease

#### Germany

- Airports: Some bigger airports, e.g. Munich, Dusseldorf and some small airports e.g. Memmingen, with strong traffic growth; some German airports with downward trend, e.g. Hahn
- Airlines: Heterogeneous developments of number of flights offered; strong growth of e.g. Ryanair, Easyjet and Wizz Air; some airlines, e.g. Turkish Airlines and SunExpress with decreasing traffic

### Outlook: April 2017 – June 2017

#### Global

- For the next few months, a traffic growth of 4-5 % is expected

#### World Regions, Europe

- For the next few months, a traffic growth of 4-5 % is expected

#### Germany

- For the next few months, a traffic growth of 5-6 % is expected

Rank	Airport	03/2017	Growth rate
1	Atlanta Hartsfield-Jackson Intl	37.082	-1,6
2	Chicago O'Hare International	35.075	-1,8
3	Los Angeles International	27.436	6,7
4	Dallas/Fort Worth Intl	26.803	-3,6
5	Beijing Capital	25.506	0,9
6	Denver Intl	23.710	3,3
7	Charlotte	21.959	-1,2
8	Shanghai Pudong International	20.499	6,2
9	London Heathrow	19.902	0,7
10	Jakarta Soekarno-Hatta	19.481	4,1
11	Amsterdam	19.447	7,2
12	Tokyo Haneda	18.899	-0,2
13	Houston George Bush Intercontinental	18.884	-2,8
14	Guangzhou	18.727	7,1
15	Frankfurt International	18.478	1,3
16	New York J F Kennedy International	18.443	1,2
17	Toronto Lester B Pearson Intl	18.189	4,4
18	Paris Charles de Gaulle	18.024	0,6
19	Delhi	17.762	15,6
20	Istanbul Ataturk	17.474	-7,5
21	Mexico City Juarez International	17.403	3,4
22	Dubai	17.374	1,3
23	Newark Liberty International	17.344	3,5
24	Phoenix Sky Harbor Intl .	17.343	-1,1
25	San Francisco International	17.269	1,1

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

Rank	Airport	03/2017	Growth rate
1	Frankfurt International	18.478	1,3
2	Munich International	16.114	9,4
3	Dusseldorf International	8.687	13,3
4	Berlin Tegel	7.431	-0,1
5	Hamburg	5.865	5,0
6	Stuttgart	3.648	-3,6
7	Cologne/Bonn K.A.	3.611	3,7
8	Berlin Schoenefeld	3.602	16,5
9	Hanover	1.825	-6,8
10	Nuremberg	1.552	11,8
11	Bremen	839	-11,3
12	Dresden	823	8,4
13	Leipzig/Halle	770	1,0
14	Frankfurt Hahn	570	-12,8
15	Dortmund	491	-5,2
16	Munster	343	3,6
17	Karlsruhe/Baden Baden	322	2,5
18	Dusseldorf Niederrhein	321	-9,8
19	Friedrichshafen	291	-8,2
20	Memmingen	249	11,2
21	Saarbrücken/Ennsheim	226	-3,4
22	Paderborn	157	-7,6
23	Mannheim	90	7,1
24	Westerland	84	68,0
25	Rostock-Laage	76	49,0

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

Rank	Airport	03/2017	Growth rate
1	London Heathrow	19.902	0,7
2	Amsterdam	19.447	7,2
3	Frankfurt International	18.478	1,3
4	Paris Charles de Gaulle	18.024	0,6
5	Istanbul Ataturk	17.474	-7,5
6	Munich International	16.114	9,4
7	Madrid Barajas	15.124	2,3
8	Barcelona	11.733	3,4
9	Rome Fiumicino	11.437	-4,1
10	Moscow Sheremetyevo International	11.110	6,3
11	London Gatwick	10.870	6,3
12	Copenhagen	10.451	0,9
13	Stockholm Arlanda	10.203	13,7
14	Oslo	10.169	9,7
15	Paris Orly	9.614	0,9
16	Zurich	9.485	0,9
17	Dusseldorf International	8.687	13,3
18	Vienna	8.632	-2,6
19	Brussels	8.562	0,1
20	Istanbul Sabiha Gokcen	8.337	-4,2
21	Dublin	8.085	3,1
22	Moscow Domodedovo	7.946	4,2
23	Berlin Tegel	7.431	-0,1
24	Lisbon	7.230	12,3
25	Manchester International	7.118	8,0

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

Source: OAG 2016/17, DLR 2016/17

Rank	Airline	03/2017	Growth rate
1	American Airlines	193.032	-3,7
2	Delta Air Lines	164.392	0,7
3	United Airlines	139.744	-0,8
4	Southwest Airlines	118.172	3,5
5	China Southern Airlines	61.041	3,4
6	China Eastern Airlines	57.458	3,5
7	Ryanair	53.210	8,8
8	Air Canada	49.411	3,4
9	Lufthansa German Airlines	42.877	3,8
10	easyJet	41.451	7,7
11	Air China	38.163	0,8
12	Turkish Airlines	36.475	-4,4
13	Alaska Airlines	31.409	4,1
14	JetBlue Airways Corporation	31.286	9,2
15	All Nippon Airways	30.966	-0,5
16	British Airways	30.767	-0,3
17	Air France	28.100	-0,5
18	SAS Scandinavian Airlines	27.646	9,5
19	IndiGo Air	27.393	23,5
20	Aeroflot Russian Airlines	25.464	7,7
21	Japan Airlines International	24.167	4,9
22	Qantas Airways	23.735	-0,1
23	AVIANCA	22.914	1,4
24	Azul	22.680	3,6
25	Gol Transportes Aereos	20.992	-4,4

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

Rank	Airline	03/2017	Growth rate
1	Lufthansa German Airlines	26.423	5,5
2	Air Berlin	9.603	1,1
3	germanwings	5.197	-18,9
4	Ryanair	3.785	21,2
5	Eurowings	3.546	65,9
6	easyJet	2.372	11,7
7	British Airways	1.474	9,3
8	Austrian Airlines AG	1.292	22,7
9	KLM-Royal Dutch Airlines	1.268	2,0
10	Air France	1.177	-0,1
11	Swiss	1.118	9,7
12	Turkish Airlines	1.090	-20,2
13	SAS Scandinavian Airlines	1.004	-3,4
14	Condor Flugdienst	914	-16,6
15	Aeroflot Russian Airlines	776	5,3
16	Wizz Air	718	13,8
17	TUIfly	685	-10,3
18	Germania	661	22,2
19	British Midland Regional	580	54,7
20	Flybe	542	28,4
21	SunExpress	493	-13,4
22	Air Dolomiti	477	8,4
23	LOT - Polish Airlines	418	32,3
24	Iberia	393	2,9
25	Transavia.com	380	196,9

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

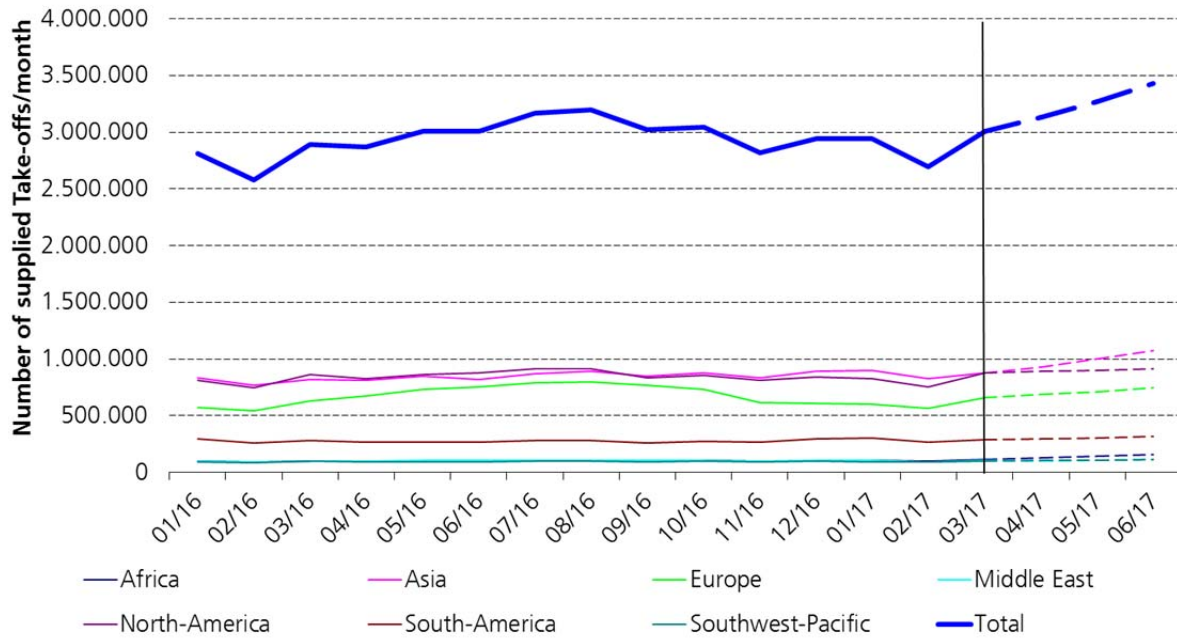
Rank	Airline	03/2017	Growth rate
1	Ryanair	52.510	8,8
2	easyJet	40.998	8,1
3	Lufthansa German Airlines	39.354	4,5
4	Turkish Airlines	31.480	-4,5
5	SAS Scandinavian Airlines	27.231	9,5
6	British Airways	25.395	-0,2
7	Air France	24.689	-0,5
8	Aeroflot Russian Airlines	21.541	8,6
9	KLM-Royal Dutch Airlines	17.802	6,9
10	Flybe	16.308	9,8
11	Iberia	15.704	2,4
12	Alitalia	14.719	-6,6
13	Air Berlin	13.815	-1,8
14	Vueling Airlines	13.046	5,4
15	Pegasus Airlines	12.118	-1,7
16	Wizz Air	11.341	8,9
17	Swiss	11.058	-2,5
18	Wideroe's Flyveselskap	10.971	4,9
19	Norwegian Air Shuttle	10.326	0,2
20	Austrian Airlines AG	9.713	5,7
21	Finnair	9.425	4,4
22	TAP Air Portugal	8.385	4,7
23	LOT - Polish Airlines	8.147	30,5
24	Aer Lingus	7.624	-1,2
25	germanwings	7.510	-17,9

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

Source: OAG 2016/17, DLR 2016/17



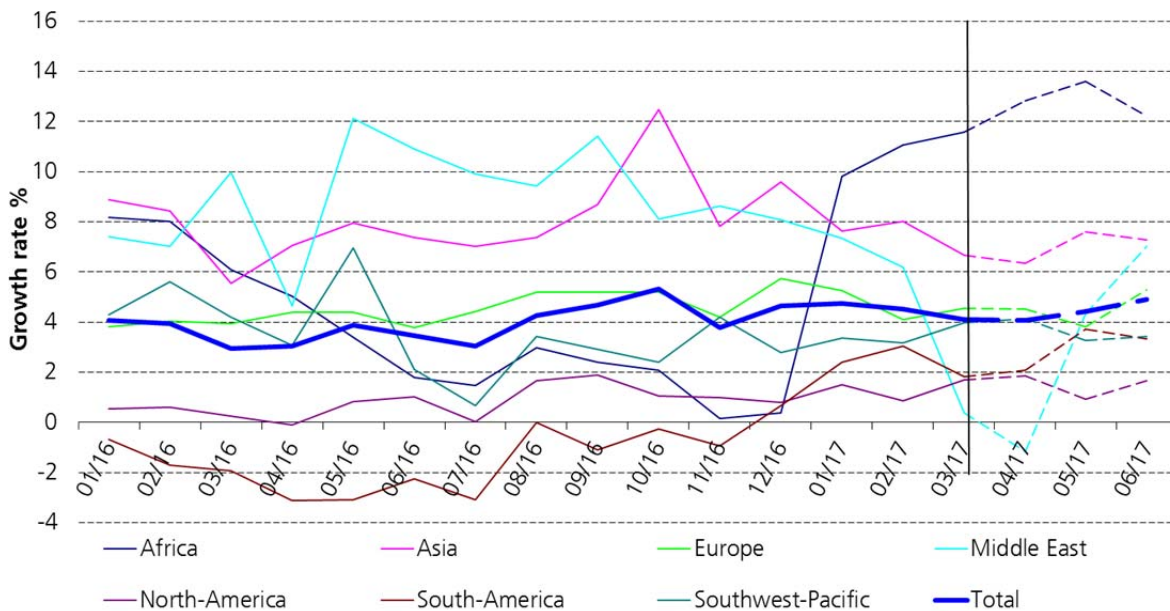
### Development of the Global Air Transport Supply



Source: OAG 2016/2017, DLR 2016/2017

Fig. 1: Development of the Global Air Transport Supply

### Changes in the Global Air Transport Supply



Source: OAG 2016/2017, DLR 2016/2017

Fig. 2: Changes in the Global Air Transport Supply

### Development of the German Air Transport Supply

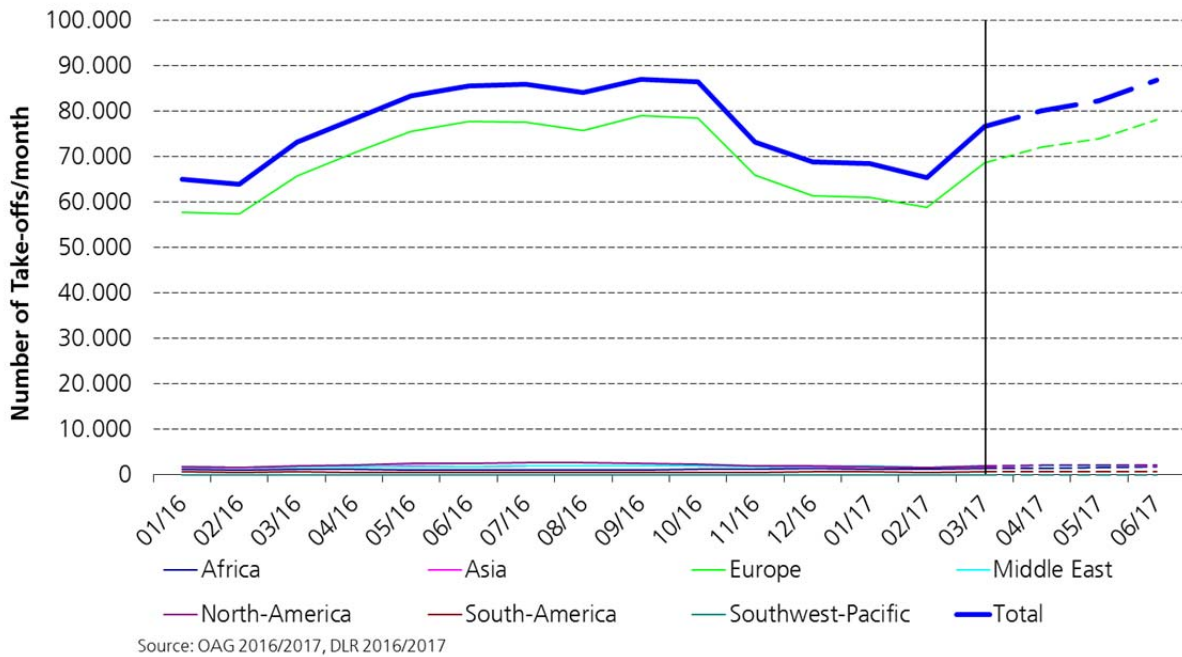


Fig. 3: Development of the German Air Transport Supply

### Changes in the German Air Transport Supply

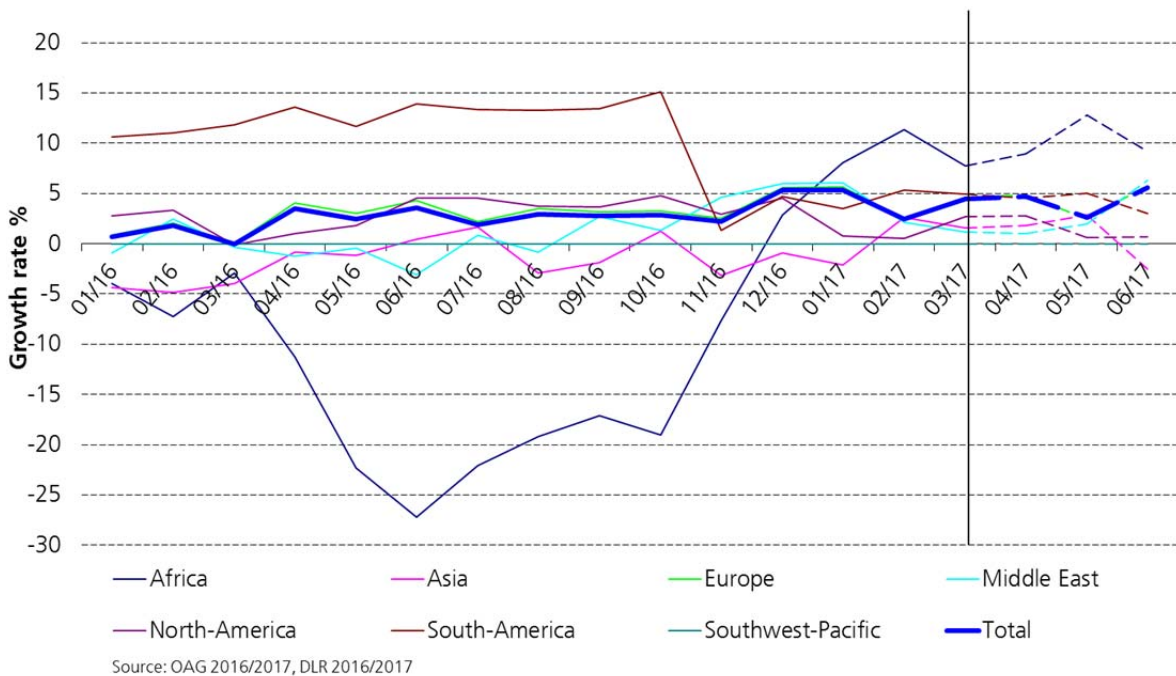


Fig. 4: Changes in the German Air Transport Supply

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