

Global Aviation Monitor (GAM)

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

December 2019



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 2019: More than 39.5 M non-stop flights worldwide, new record value
- Busiest month 2019: August with 3.6 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: January 2019 – December 2019

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 February 2019; only 1.6 % in December 2019
- December 2019: 3.2 M flights supplied (+1.6 %)
- Airports: Heterogeneous development of no. of flights offered; strong growth e.g. at Dallas/Fort Worth and Denver (5 % and more)
- Airlines: Heterogeneous development of no. of flights offered; strong growth e.g. of ANA, Azul and IndiGo

World Regions, Europe

- In Europe, 0.9 % traffic decrease; in Asia growth around 3 %
- Airports: Heterogeneous developments of no. of flights offered; strong increase e.g. at Madrid, however, decline at some airports, e.g. Zurich
- Airlines: Heterogeneous developments of flights, some airlines, e.g. Air France with strong growth, strong growth in the low cost segment, e.g. Ryanair and Wizz; Some airlines, e.g. Eurowings with decreasing supply; Some additional flights of Ryanair with Lauda flight number

Germany

- Airports: Some small airports e.g. Dortmund, with traffic growth; some German airports with downward trend, e.g. Berlin Schoenefeld
- Airlines: Heterogeneous developments of number of flights offered; strong growth of e.g. Wizz; Easyjet with decreasing traffic

Outlook: January 2020 – March 2020

Global

- For the next few months, a traffic growth of around 1-2 % is expected

World Regions, Europe

- For the next few months, a traffic decline of around 2-3 % is expected

Germany

- For the next few months, a traffic decline of around 5-7 % is expected

Trend for the next month



Stable with low downside risk



Stable with low downside risk



Stable with low downside risk

Rank	Airport	12/2019	Growth rate
1	Chicago O'Hare International	37.870	1,9
2	Atlanta Hartsfield-Jackson Intl	35.778	2,1
3	Dallas/Fort Worth Intl	29.079	9,9
4	Los Angeles International	27.281	0,2
5	Denver Intl	25.665	9,2
6	Beijing Capital	25.213	-3,5
7	Charlotte	22.692	5,7
8	Shanghai Pudong International	21.681	1,7
9	Guangzhou	21.464	5,1
10	Delhi	20.525	4,7
11	Jakarta Soekarno-Hatta	20.026	-5,4
12	Tokyo Haneda	19.674	2,6
13	Houston George Bush Intercontinental	19.367	2,5
14	London Heathrow	19.278	-0,0
15	Amsterdam	19.105	0,4
16	Mexico City Juarez International	18.956	4,3
17	Paris Charles de Gaulle	18.529	-0,1
18	Seattle/Tacoma International	18.042	5,9
19	Kuala Lumpur International	17.820	1,1
20	Frankfurt International	17.815	-5,0
21	New York J F Kennedy International	17.792	-3,1
22	Istanbul Ataturk	17.785	0,4
23	San Francisco International	17.722	-0,4
24	Newark Liberty International	17.618	2,4
25	Seoul Incheon International	17.142	4,0

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

Rank	Airport	12/2019	Growth rate
1	Frankfurt International	17.815	-5,0
2	Munich International	14.426	-3,9
3	Dusseldorf International	7.277	-8,9
4	Berlin Tegel	6.957	-10,1
5	Hamburg	4.978	-4,9
6	Stuttgart	3.849	0,4
7	Cologne/Bonn K.A.	3.060	-9,1
8	Berlin Schoenefeld	2.712	-14,1
9	Hanover	1.654	-2,8
10	Nuremberg	1.309	-9,7
11	Bremen	791	3,7
12	Dortmund	775	15,0
13	Leipzig/Halle	750	-13,4
14	Dresden	623	-10,6
15	Memmingen	395	0,0
16	Munster	379	12,5
17	Frankfurt Hahn	341	-28,7
18	Karlsruhe/Baden Baden	248	-10,1
19	Friedrichshafen	202	3,6
20	Dusseldorf Niederrhein	188	-20,3
21	Paderborn	170	-39,7
22	Saarbrücken Ensheim	167	-13,0
23	Mannheim	125	108,3
24	Rostock-Laage	47	-42,0
25	Westerland	31	29,2

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

Rank	Airport	12/2019	Growth rate
1	London Heathrow	19.278	-0,0
2	Amsterdam	19.105	0,4
3	Paris Charles de Gaulle	18.529	-0,1
4	Frankfurt International	17.815	-5,0
5	Istanbul Ataturk	17.785	0,4
6	Madrid Barajas	16.486	5,0
7	Moscow Sheremetyevo International	14.935	-3,6
8	Munich International	14.426	-3,9
9	Barcelona	12.111	1,8
10	Rome Fiumicino	11.265	-3,9
11	London Gatwick	10.228	-1,4
12	Vienna	10.155	4,9
13	Istanbul Sabiha Gokcen	9.396	1,6
14	Zurich	9.017	-6,6
15	Copenhagen	9.004	0,1
16	Oslo	8.625	-1,8
17	Lisbon	8.545	3,6
18	Paris Orly	8.356	-5,7
19	Dublin	8.223	-1,0
20	Stockholm Arlanda	7.952	-6,4
21	Milan Malpensa	7.860	4,5
22	Moscow Domodedovo	7.587	-10,6
23	Brussels	7.580	-1,4
24	Helsinki	7.359	0,3
25	Dusseldorf International	7.277	-8,9

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

Source: OAG 2018/19, DLR 2018/19

Rank	Airline	12/2019	Growth rate
1	American Airlines	197.243	3,6
2	Delta Air Lines	159.771	4,7
3	United Airlines	152.916	3,4
4	Southwest Airlines	117.558	0,9
5	China Southern Airlines	70.865	6,7
6	China Eastern Airlines	68.391	6,4
7	Ryanair	59.693	6,9
8	IndiGo Air	48.012	15,4
9	easyJet	46.104	2,8
10	LATAM	45.452	12,8
11	Air Canada	45.013	-4,2
12	Air China	44.295	5,4
13	Alaska Airlines	40.752	6,2
14	Lufthansa German Airlines	39.552	-5,1
15	Turkish Airlines	38.921	-1,4
16	All Nippon Airways	34.971	13,7
17	Air France	32.097	18,2
18	JetBlue Airways Corporation	31.550	-0,4
19	Aeroflot Russian Airlines	29.350	-2,6
20	British Airways	28.664	1,8
21	Azul	25.751	12,0
22	Japan Airlines International	25.528	-0,9
23	Gol Transportes Aereos	25.436	10,8
24	Qantas Airways	23.012	3,8
25	Shenzhen Airlines	21.983	4,2

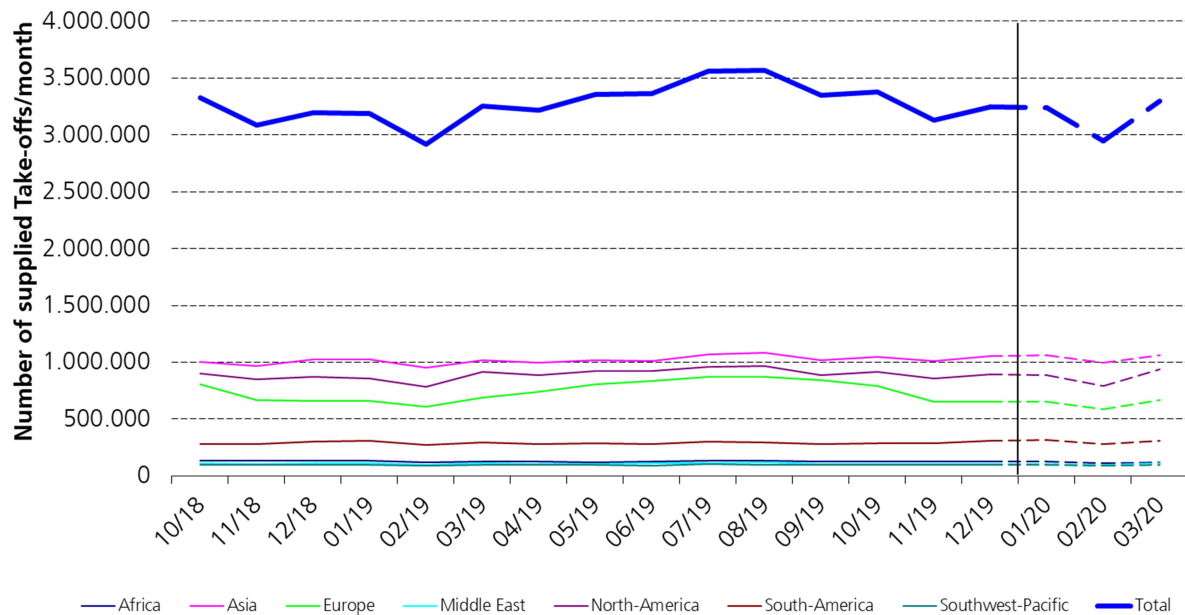
Tab. 4: Number of monthly Take-offs by the largest Airlines in the World

Rank	Airline	12/2019	Growth rate
1	Lufthansa German Airlines	24.610	-4,6
2	Eurowings	10.066	-11,5
3	easyJet	4.544	-7,1
4	Ryanair	3.748	-8,2
5	Swiss	1.481	10,4
6	British Airways	1.433	3,3
7	Wizz Air	1.374	26,1
8	KLM-Royal Dutch Airlines	1.270	1,2
9	Austrian Airlines AG	1.241	-9,2
10	Air France	1.143	2,3
11	Turkish Airlines	1.123	-0,1
12	Condor Flugdienst	1.024	-12,0
13	Air Dolomiti	894	90,6
14	Aeroflot Russian Airlines	883	0,3
15	SAS Scandinavian Airlines	752	-2,7
16	TUIfly	688	-2,1
17	SunExpress	674	10,9
18	Lauda	638	73,8
19	LOT - Polish Airlines	629	-2,8
20	Pegasus Airlines	530	4,5
21	Iberia	448	2,3
22	United Airlines	426	9,2
23	Finnair	416	10,9
24	Luxair	400	-1,2
25	TAP Air Portugal	396	-17,0

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

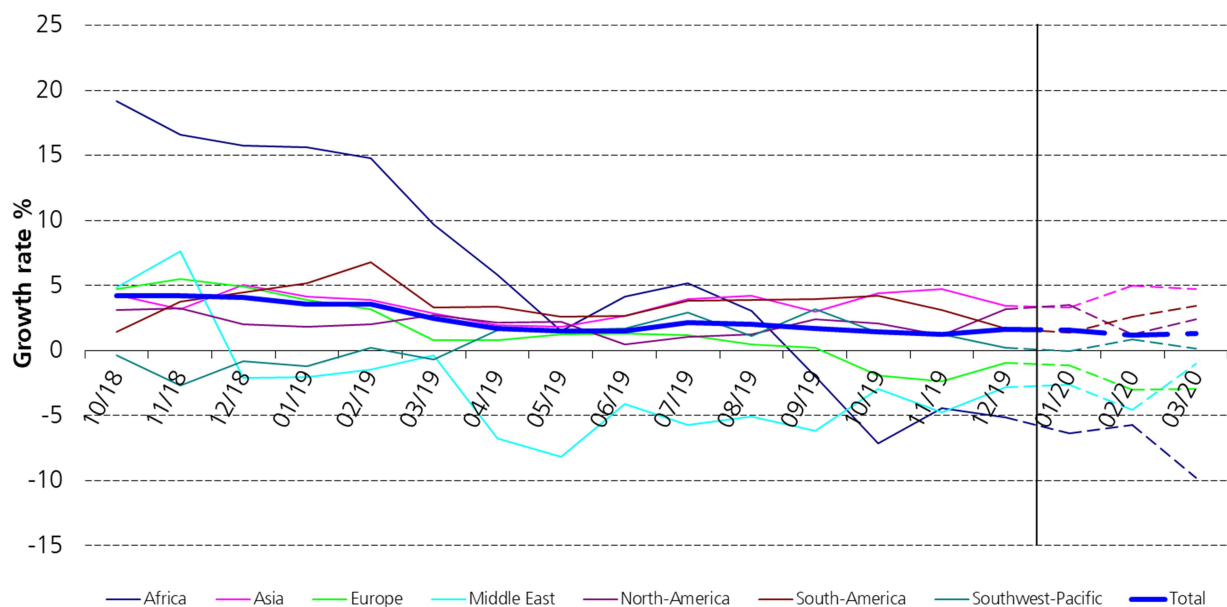
Rank	Airline	12/2019	Growth rate
1	Ryanair	57.987	6,6
2	easyJet	45.178	2,2
3	Lufthansa German Airlines	36.338	-5,3
4	Turkish Airlines	33.397	-3,0
5	Air France	28.453	20,4
6	Aeroflot Russian Airlines	24.695	-3,1
7	British Airways	22.920	0,8
8	SAS Scandinavian Airlines	19.438	-2,4
9	KLM-Royal Dutch Airlines	18.168	0,4
10	Wizz Air	16.809	21,6
11	Iberia	15.832	2,0
12	Eurowings	14.904	-11,7
13	Vueling Airlines	14.657	-1,1
14	Alitalia	14.437	0,7
15	Pegasus Airlines	13.919	0,1
16	Flybe	11.072	-15,7
17	Swiss	10.892	-1,0
18	LOT - Polish Airlines	10.406	3,8
19	Finnair	10.325	7,5
20	TAP Air Portugal	10.208	0,7
21	Austrian Airlines AG	9.430	-0,8
22	Wideroe's Flyveselskap	9.183	1,9
23	Norwegian Air Shuttle	8.202	-9,1
24	Aer Lingus	7.301	-3,0
25	Air Europa	7.287	-3,5

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



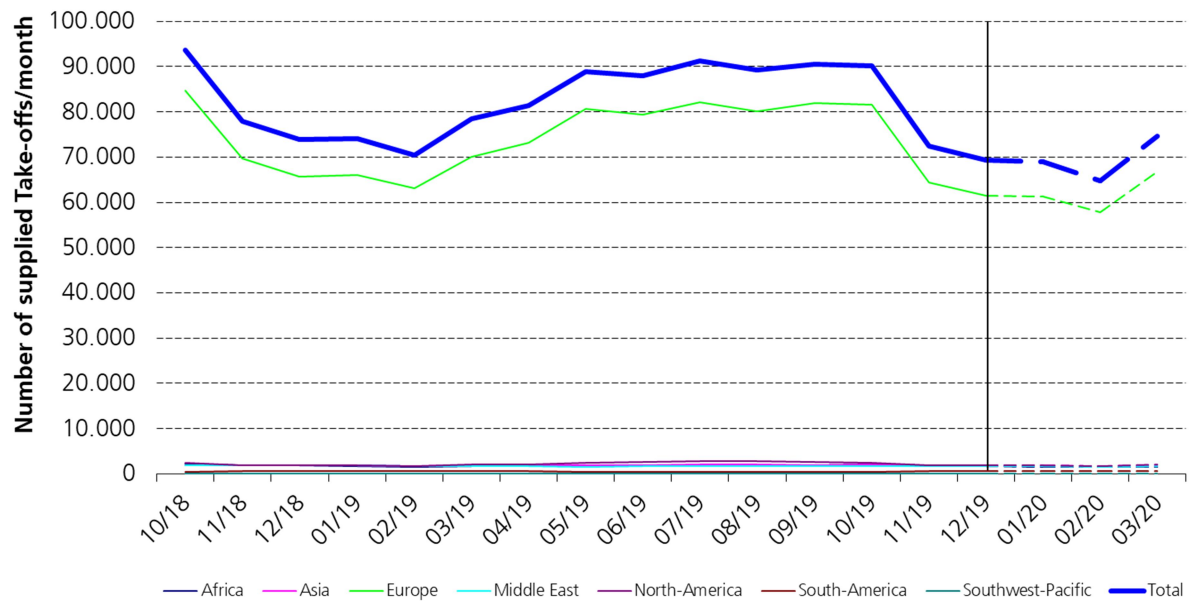
Source: OAG 2018/2019, DLR 2018/2019

Fig. 1: Development of the Global Air Transport Supply



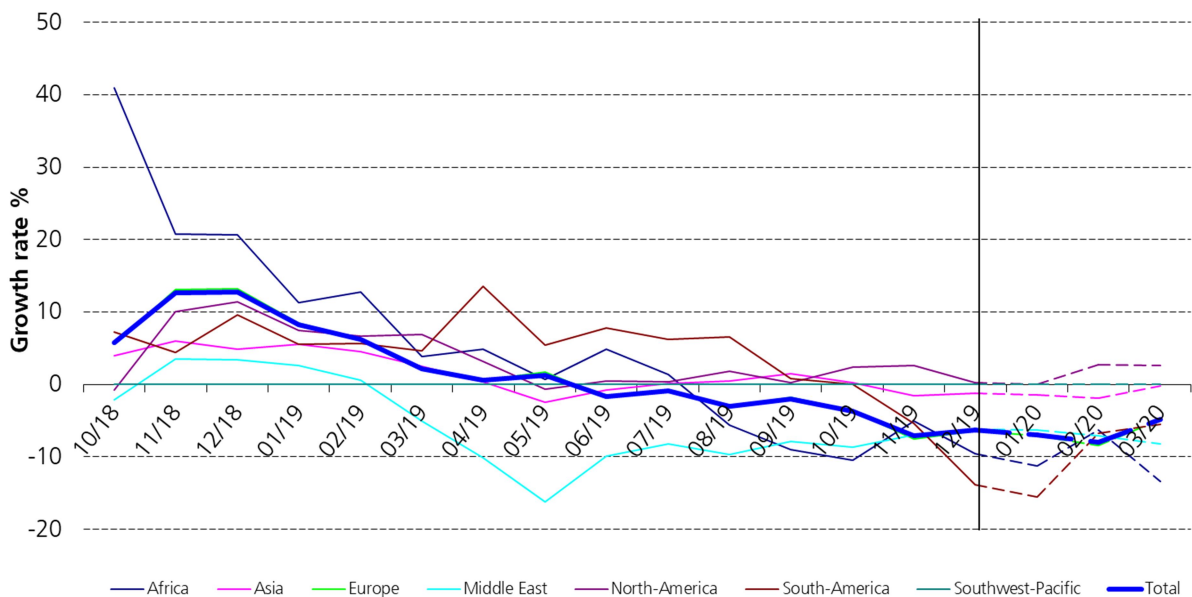
Source: OAG 2018/2019, DLR 2018/2019

Fig. 2: Changes in the Global Air Transport Supply



Source: OAG 2018/2019, DLR 2018/2019

Fig. 3: Development of the German Air Transport Supply



Source: OAG 2018/2019, DLR 2018/2019

Fig. 4: Changes in the German Air Transport Supply

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