

12/11/03

German Aviation Research Society  
The role of competition in the future airport industry

**Competition and market power -**

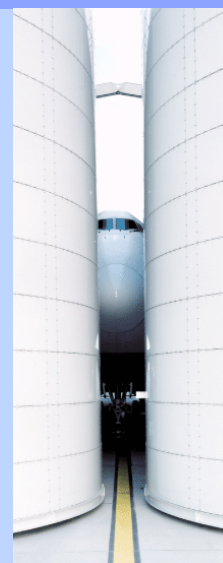
Are current business models and regulatory concepts for German airports still able to cope with today's realities?  
Some thoughts on possible reform necessities

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Leipzig, November 13th, 2003



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1. Facts and figures - Overview of HOCHTIEF AirPort

Year founded: 1997  
 Head Office: Essen, Germany  
 Employees: ca. 60  
 Total assets (12/02): EUR 716 million

HOCHTIEF AirPort (HTA) focuses on

- Investment in and management of airports and airport facilities,
- Provision of individual services at airports or in connection with the development, design, planning and operation of airports.

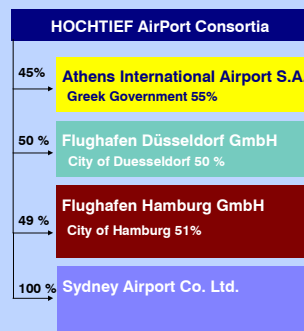
HOCHTIEF AirPort operates autonomously and independently from HOCHTIEF's construction business.



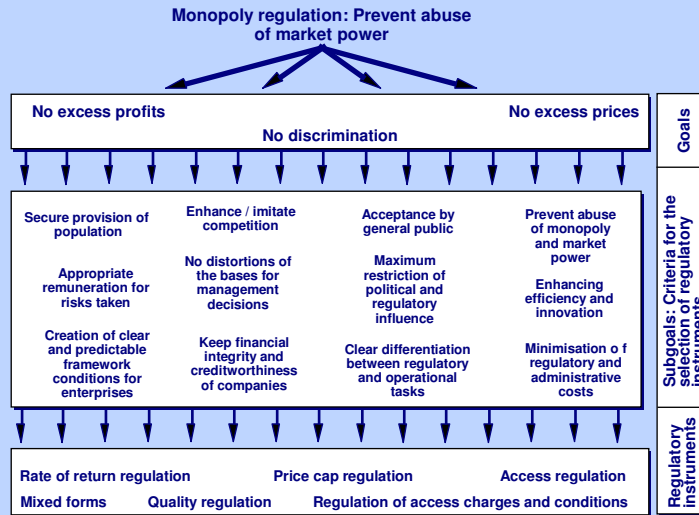
1. HOCHTIEF AirPort as world-wide airport developer/manager and advisor

Private partner for successful airport development

- Supporting airports in their individual development
  - Strengthen competitive position and enlarge customer base
  - Realize highest operational and economic efficiency and customer satisfaction
  - Optimize aviation and non-aviation business areas
- Integrate airport investments
  - Stimulate cooperation between network airports
  - Realize synergies



## 2. Main goals and objectives of economic regulation



## 3. Economic Regulation of German airports



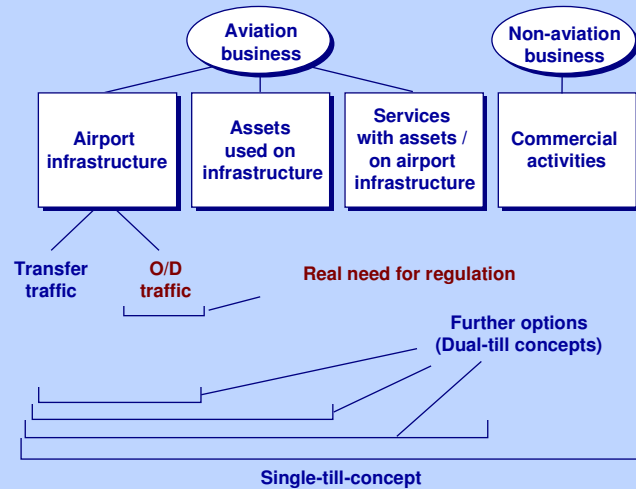
Important part of regulation is influence on airport charges or profit, i.e. the 'economic regulation'.

4. Some questions, which are (too) rarely asked

- 4.1 Which airport activities / facilities could require regulation?
- 4.2 What does competition mean for airport regulation?
- 4.3 Which impact does airlines' market power have?
- 4.4 Competitive distortions caused by (over-) subsidisation?
- 4.5 How could airports be regulated?
- 4.6 Who should regulate airports?

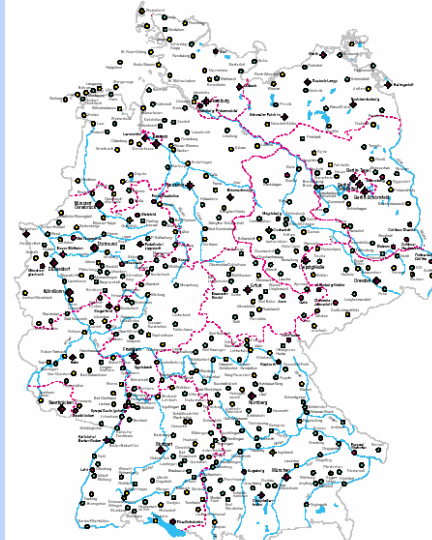


4.1 Which airport activities / facilities should be regulated?



4.2 Which airports should be regulated? – Intra- and intermodal competition

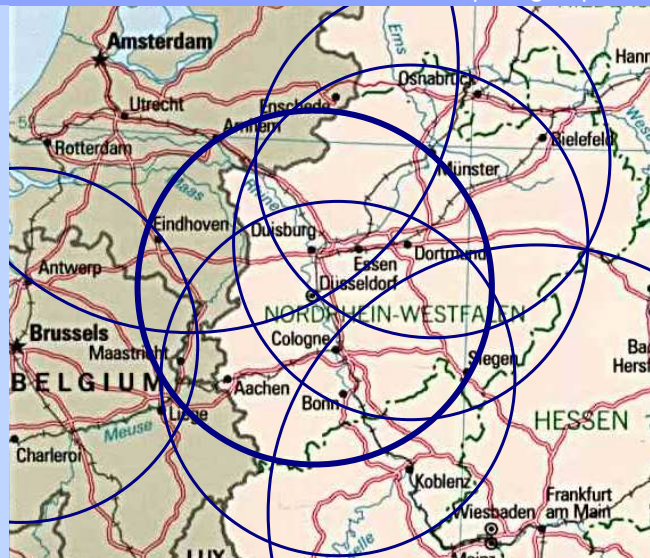
- Germany has very high airport density with average distance between airports (with paved runway of >2,44 km) of 77km:
  - Existing airports,
  - Former military bases (potential competition / contestability).
- Low-cost airlines increase airport catchment areas.
- Near airports abroad create additional competitive pressure.
- Germany has very high rail and road density. Many airports already have or plan rail access. This increases inter-modal competition and enlarges airport catchment areas.



Flugplätze in Deutschland. Source: ADV.

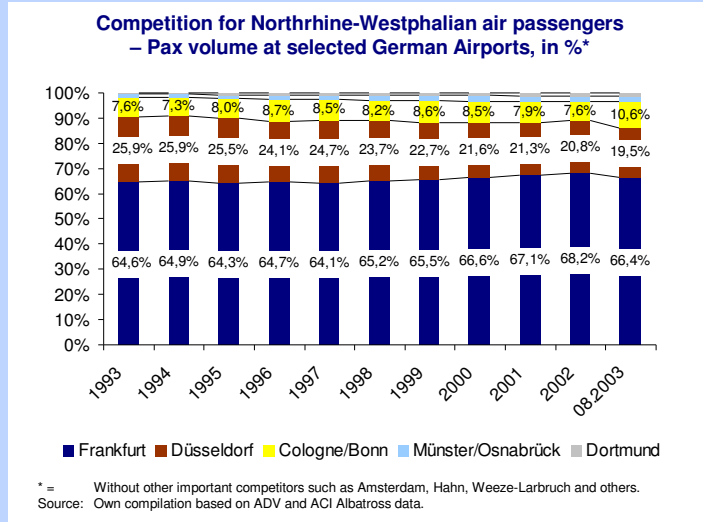
4.2 Example: Catchment areas of Düsseldorf and selected competing airports\*

- Airlines and passengers have ample choice options:
  - Proximity of BRU, AMS, FRA, FMO, DTM, CGN,
  - Former military bases (like Weeze-Laarbruch),
  - Excellent road and rail network.
- Do these competing airports really require - as is currently the case - economic regulation?



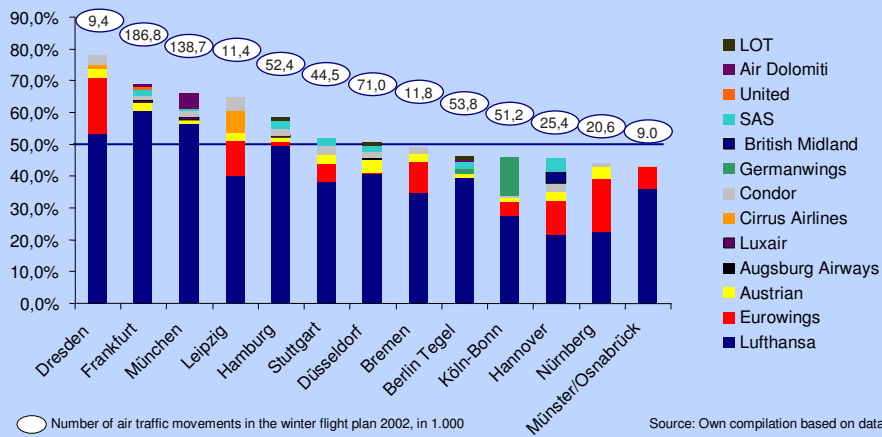
\* = for simplification reasons approx. 100km radius around each airport, in the case of hubs AMS and FRA 150 km

4.2 Example – Market shares of Düsseldorf and selected competing airports\*



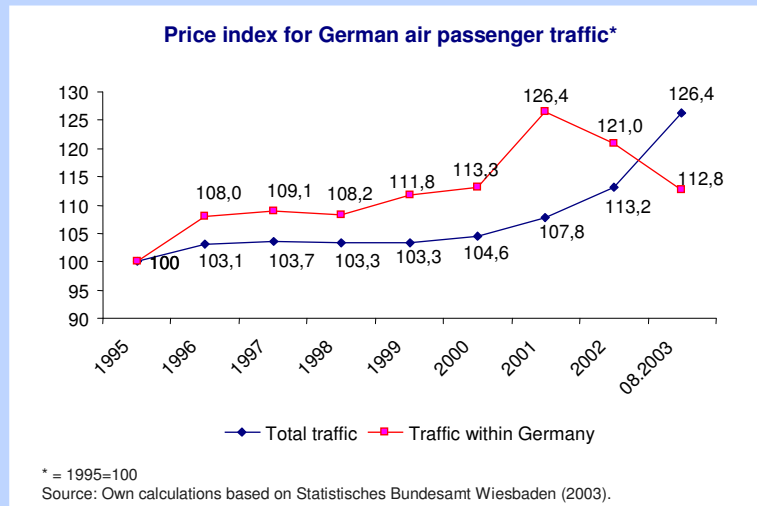
4.3 Countervailing market powers – monopoly power of airlines?

**Market share of Lufthansa together with partnering airlines at selected German Airports, winter flight plan period 2002\***



Source: Own compilation based on data of the Flight Plan Coordinator.

#### 4.3 German airlines' market power – only recently eroded by low-cost carriers



#### 4.4 Competitive distortions caused by state (over-)subsidisation

- Many airports in state (local or federal) ownership receive direct or indirect subsidies:
  - Direct subsidies for e.g. expansion measures
  - Provision of equity or subordinated debt below capital costs (or zero cost)
  - Better credit conditions (whole state entity taxable income as basis for assessment of credit risk)
- These subsidies lead to artificially low charges at these airports and represent indirect support to the respective airlines.
- Example Munich Airport:
  - MUC/FMG equity costs
  - Costs of reduced capacity utilisation in T1 due to transfer of Star Alliance traffic to T2
  - Expected economic development of T2

If these costs were properly reflected in MUC's airport charges, they would have to rise c.p. by approx. 140%!



#### 4.5 How could be regulated – the example of Sydney Airport

- Contrary to other Australian airports Sydney is not governed by a price cap.
- Aviation and non-aviation areas are separated (dual till).
- Some so called non-aviation areas are supervised, but mainly those with large market power (e.g. fuelling).
- Airport charges are defined on the basis of an appropriate return on the capital employed – the respective 'Regulatory Asset Base' is very carefully specified. Thus for the first time positive results are permitted in all areas.
- The permitted return is defined on the basis of the Capital Asset Pricing Model.
- Charges can be set freely; in the case of (potential) market power abuse the regulator ACCC can be called.
- After five years the results of this system will be reviewed.



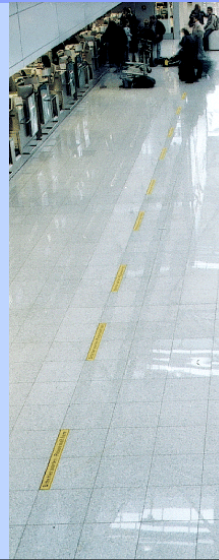
#### 4.6 Who should regulate?

- An independent review should assess the market power of each airport - only dominant positions require the threat of regulation.
- The designation of airports (if any), which should be regulated, could be made by the Federal Ministry of Transport.
- Regulation of designated German airports should be carried out by one regulator - *one* centre of competence instead of (inefficient) multiple regional institutions.
- Due to synergies with other infrastructure sectors (e.g. ports, energy, telecommunication) a joint regulator could be installed ('infrastructure regulator') or infrastructure regulation could be 'networked' through a regulatory ombudsman / coordinator.
- The airport regulator aims at reaching consensus between the interests of the various aviation market players.
- Excess bureaucracy should be prevented, the regulator should be obliged to transparency (e.g. CAA in UK) and could be controlled by an external state institution, such as
  - The Federal Cartel Office or
  - An institution similar to the Monopoly Commission.



## 5. Conclusions – thesis for discussion

- The German airport market is heavily distorted by subsidies of various state entities.
- German airports act in a very competitive business and face clients with large market power; these market pressures reduce the need to regulate each airport.
- The regulation of airports requires case-by-case assessment of each airport's market power.
- Only O/D traffic displays characteristics of market dominance, as airports potentially have most market power in this area.
- Airports should be regulated, if at all, by only one regulator in Germany.
- This regulator should apply a 'light-handed-approach' (e.g. à la Sydney).
- Due to synergies a regulator could also be responsible for other infrastructure sectors (,infrastructure regulator'); alternatively an ombudsman could 'network' the sectors.
- Excess bureaucracy should be prevented; the regulator should be monitored appropriately.



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**Thank you for your interest**



## Contact details

The thoughts and ideas mentioned in this presentation represent solely the author's opinion, not necessarily HOCHTIEF AirPort's. For any question please contact:

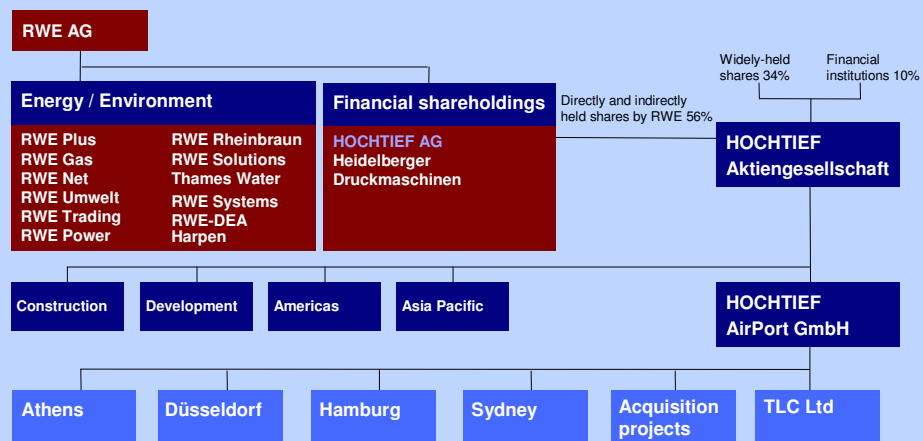
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## 6. Enclosures

### 6.1 Intra- and intermodal competition for German airports – intl. comparison

	D	F	IT	UK	SP	J	CAN	USA	AUS
Country size (sqkm)	356.910	547.030	301.230	244.820	504.750	377.835	9.976.140	9.372.610	7.686.850
Inhabitants, in mln.	81,3	58,1	58,3	58,3	39,4	125,5	28,4	263,8	18,3
Rail network (km)	43.457	34.074	19.503	16.888	14.400	27.327	78.148	240.000	40.478
Fast roads (km) paved	501.282	811.200	277.388	360.047	328.641	754.102	253.692	3.633.520	243.750
No. of airports with runway > 2,438 m	77	41	39	40	26	37	33	389	391
Population density (inhabitant per sqkm)	227,89	106,23	193,41	238,11	78,07	332,17	2,85	28,15	2,38
rail network desity (km/sqkm)	0,12	0,06	0,06	0,07	0,03	0,07	0,01	0,03	0,01
Road density (km/sqkm)	1,40	1,48	0,92	1,47	0,65	2,00	0,03	0,39	0,03
Average space served by above airport (sqkm)	4.635	13.342	7.724	6.121	19.413	10.212	302.307	24.094	19.659
Average distance between above airports (km)	77	130	99	89	157	114	621	175	158

### 6.2 Organisational structure of RWE and HOCHTIEF



### 6.3 New Athens Intl. Airport – Design, Finance, Build, Operate, Transfer

#### Facts and Figures (2001)

- Public-Private Partnership:
 

Private shareholders:	45 percent
(HOCHTIEF AirPort share:	39.875 percent)
Greek State:	55 percent
- Airport operation (2001 - 2025)
- Total project costs: EUR 2.06 billion
- Airport opening: 28th March 2001
- Passenger volume (1st year): 12.2 million
- Cargo volume (1st year): 107 000 tons
- Aircraft movements (1st year): 170 000
- Employees (05/2002): 680



### 6.3 Düsseldorf International Airport

#### Facts and Figures (2001)

- Public-Private Partnership:
 

HOCHTIEF AirPort consortium:	50 percent
City of Düsseldorf:	50 percent
- Passenger volume 15.4 m
- Cargo volume 52 000 tons
- Opening of new terminal July 2001
- Employees (as per 2001) 2 457
- Investment volume 1998-2003 ca. 540 mn EUR (incl. new terminal and railway station)
- Majority Shareholder in Mönchengladbach Airport (approx. 0.25 mn passengers)
- **Best and safest airport in Germany according to 'Capital' survey (01/02)**



### 6.3 Hamburg Airport

#### Facts and Figures (2001)

- Public-Private Partnership:  
HOCHTIEF AirPort consortium: 49 percent  
City of Hamburg: 51 percent
- Two runway system 3,666 m and 3,250 m
- Passenger volume 9.5 m
- No. of gate positions 11
- Cargo volume 78 000 tons
- Aircraft movements 158 600
- Turnover 192 mn EUR
- Employees 862
- Turnover 2001: EUR 192 million
- Capex program to 2007: EUR 350 million



### 6.3 Sydney Airport Kingsford Smith

#### Facts and Figures (7/01-6/02)

- 100% Privatization (Southern Cross Airports Corporation)
- HOCHTIEF AirPort  
(as industrial partner): 15 percent
- Financing by Consortium: EUR 3.186 bln. plus EUR 113 mln. for Ansett-Terminal
- Passenger volume: 23.8 million
- Air traffic movements: 254,729
- Cargo volume: 416,000 tons
- Employees (airport company): 409
- **Named „Best Airport Worldwide“ in 2001 for the 15-25 million passenger category**
- **Recently ranked third in the world by the aviation market researchers Skytrax**

