MERCER
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G.A.R.S.

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Profitable Growth Strategies in the Airport Business

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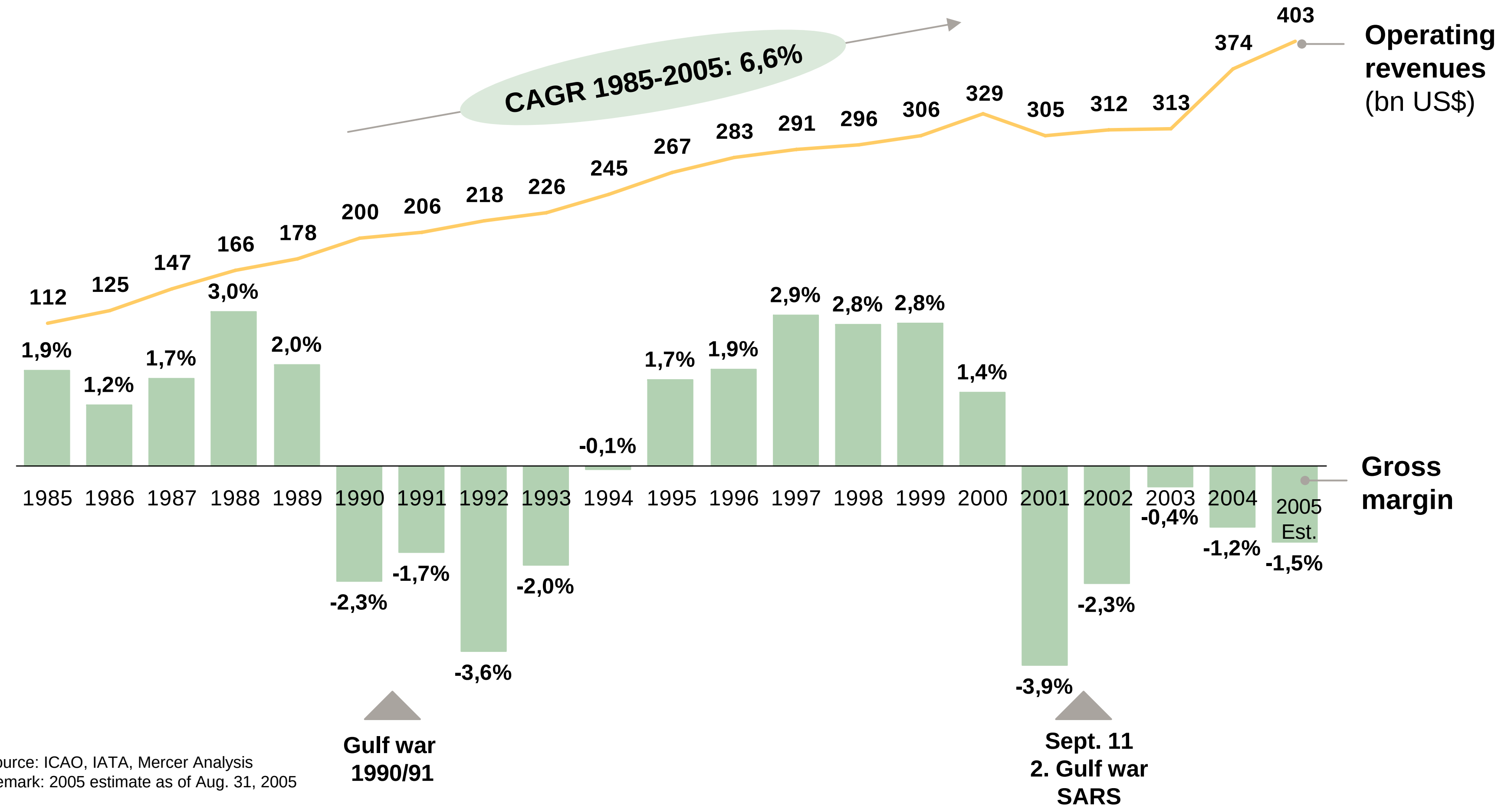
MMC A Marsh & McLennan Company

Even though global aviation represents a growth market, for the airline industry in total it has been a no profit business

Worldwide airline industry: Revenues and profitability

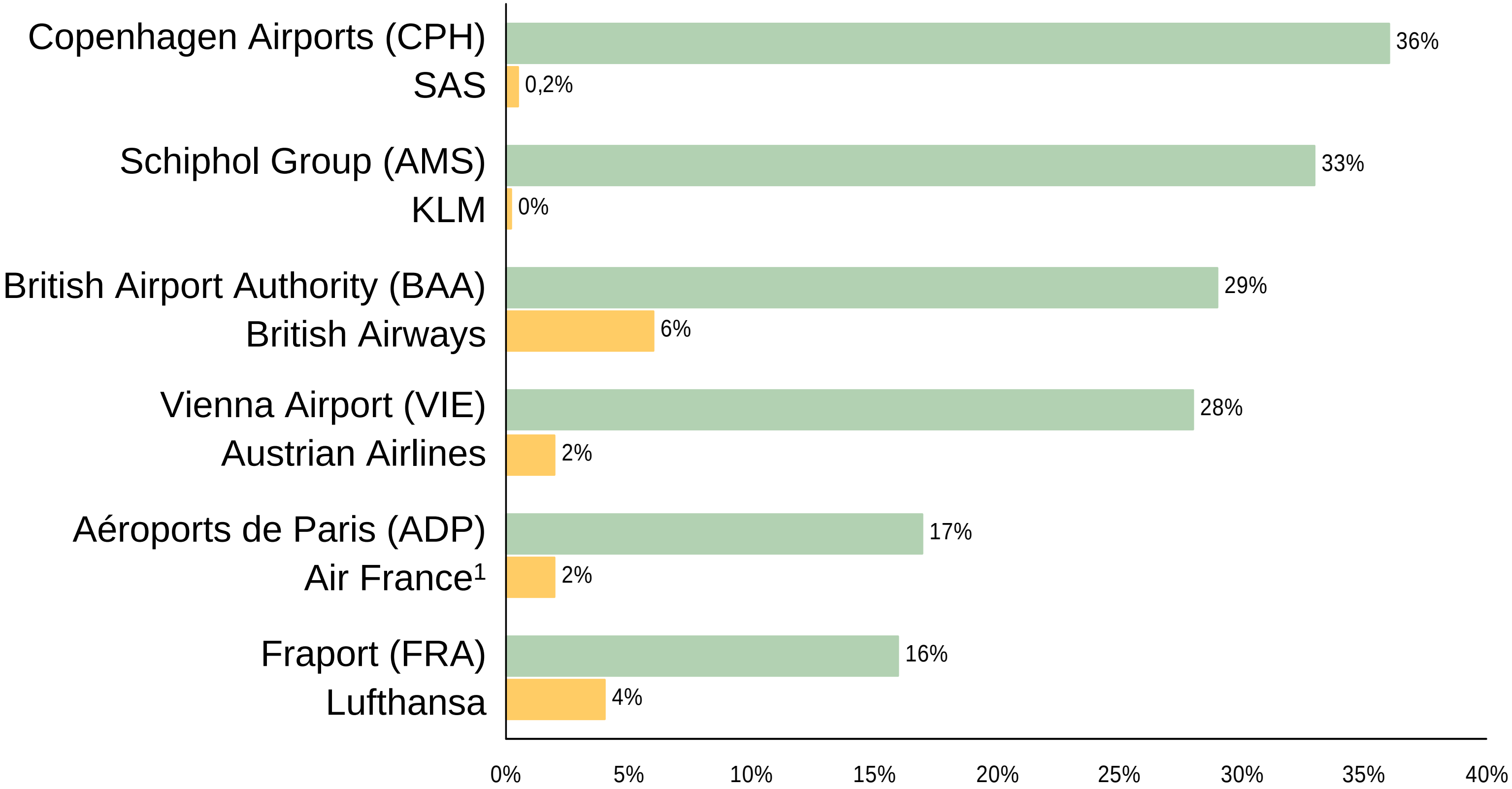


Source: ICAO, IATA, Mercer Analysis
Remark: 2005 estimate as of Aug. 31, 2005

While most airlines have struggled to achieve acceptable profit margins, airports in general have been in a much more comfortable situation

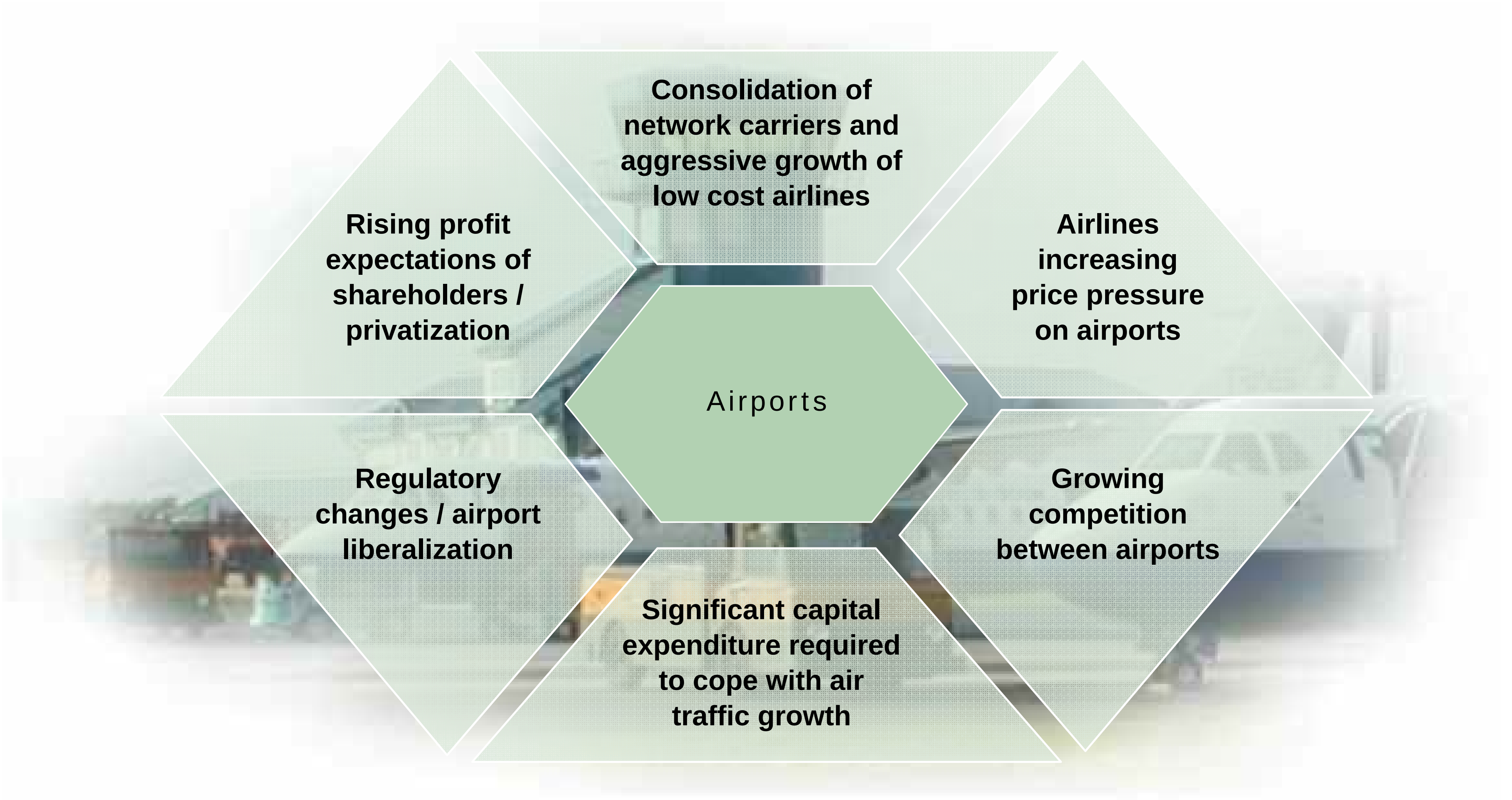
Selected airlines / home airports

5 year average EBIT-margin
2000 - 2004 in %



1 2004 incl. KLM
2 Until 2000 SAirlines, From 2001 Swiss International Airlines
Source: Mercer Analysis

However, due to fundamental changes in the market and competitive landscape, pressure on airports will increase significantly



Profitable growth in the airport industry requires a sound business design and is based on fulfilling five key success factors

Clear strategic positioning
→ Winning business design

Competitive edge / Key differentiators

1 Prudent capital expenditure
- Optimize capacity utilization before new infrastructure investments
- Sequential capacity expansion
- ROI as major decision criterion
- „Profitability over-rules beauty"

2 Strict cost management
- Market-oriented tariffs / compen-sation schemes
- Flexible working regulations / worker´s deployment
- Overhead reduction
- Outsourcing

3 Business centric organization
- Lean / transparent organization structure
- P/L-responsibility
- Tailored corporate management systems
- Spin-off, sale or outsourcing of non-strategic business

4 Non-aviation expansion
- Aviation and non-aviation on equal footing
- Broaden customer base beyond air-travellers
- Transform from infrastructure provider to airport business park manager

5 Partnering / cooperation with airlines
- Incentive models / risk sharing
- Integrated processes (Pax, cargo, …)
- Financial participation

Key success factors:
- Foundations of profitable growth - prerequisite for all airports
- Particular characteristics to be tailored towards specific strategic positioning

Airports have to move towards transparent management structures with an explicit focus on the core business and clear accountability

3

HR, finance, legal, …

Aviation	Real Estate	Retail & Consumer Services	Ground Handling
▪ Airport operations ▪ Terminal management	▪ Development / planning ▪ Marketing ▪ Lease / Sale	▪ Retail ▪ Catering ▪ Parking ▪ Advertising	▪ Ramp services ▪ Pax & freight handling ▪ Cargo handling

Facility management

Security

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Corporate functions:

- Focus on corporate development / strategy, risk management, controlling and policy / standard setting

Strategic business units (SBU)

- Represent airport's core business
- Address clearly defined, distinct market / customer segments
- Full P&L responsibility at SBU level
- Marketing and sales integrated in SBUs

Service units:

- Provide (internal) services for SBUs
- Market-oriented offering and pricing based on benchmarks / service level agreements
- Pursue profitable external business
- Could be subsidiaries with / without external partners

4 A good example for an increased emphasis on the non-aviation business is the development of the „Düsseldorf Airport City“

Case Example: Düsseldorf Airport City

Airport City model / Düsseldorf International

- Airport subsidiary „Flughafen Düsseldorf Immobilien“ (FDI) acquired 230.000 m^2 area previously occupied by Rhine army barracks
- FDI develops business park and office center gradually until 2013
- Airport City located next to the airport with a direct link
- Project status:
  - Underground car park with 1800 parking slots has been opened in September
  - Maritim 4 star conference hotel - to be opened mid 2007 - will serve as anchor project (530 rooms and conference capacity of 5.000 participants)
  - VDI headquarter (Jan. 2008) – VDI is one of the largest organizers of conferences in Europe and will use the Maritim facilities

- **Synergies between airport and business park / office center will be leveraged**
- **Dependency on cyclical / volatile aviation industry is reduced**

Source: Company publications

Mercer has identified five sustainable business designs for airports, which are tailored towards the key drivers of future passenger growth

Sustainable business designs[1]:

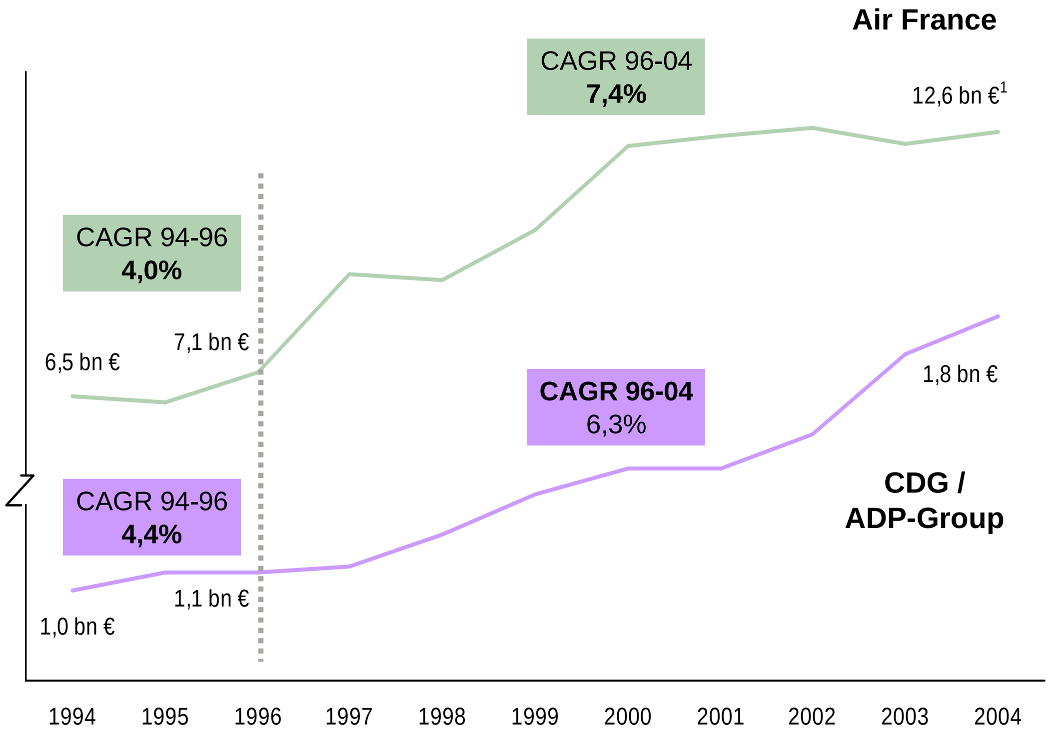
Key drivers for future growth:	Primary hub airport	Secondary hub airport	Major O&D airport	Low cost base	Leisure destination airport
Network intercont	●	◔	◔	○	○
Network feeder	◑	●	◑	○	○
Low cost	○	◔	◑	●	◕
Leisure travel	◔	◔	◑	◑	◕
Representative airports	▪ FRA ▪ CDG ▪ AMS ▪ LHR	▪ CPH ▪ VIE ▪ LGW ▪ OSL	▪ FCO ▪ BCN ▪ MAN ▪ DUS	▪ STN ▪ CGN ▪ DUB ▪ HHN	▪ PMI (Palma) ▪ AYT (Antalya) ▪ AGP (Malaya) ▪ VCE (Venice)

● Very high importance ↔ ○ No importance

1 An additional relevant business design not relating to passenger traffic is the Express / Cargo Hub like e.g. Anchorage or Memphis. Often primary passenger hubs (e.g. FRA) serve also as express / cargo hub.

CDG benefited significantly from becoming a primary hub for Air France in the mid 90s ...

CDG / ADP Group and Air France Revenue development (bn €)



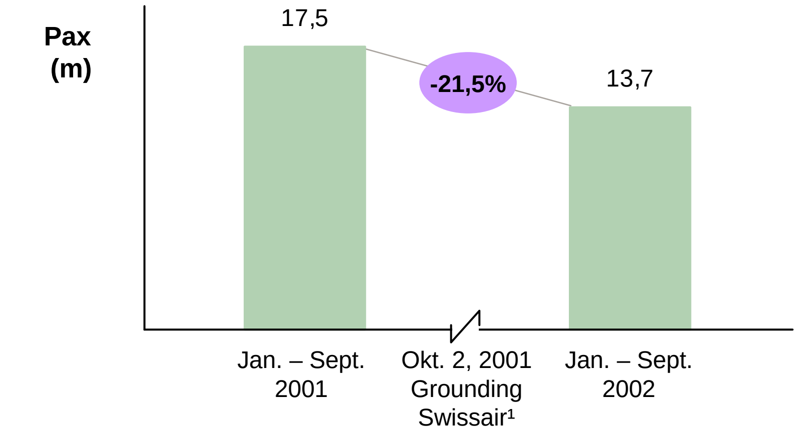
Comments

- In the mid 90s, Air France established CDG as its primary hub
- Air France / Skyteam dominate CDG with a market share of 56% / 63%[2] in 2004, up 3 percentage points from 2000
- CDG has been the fastest growing primary hub in Europe between 1996 and 2004:
  - CAGR pax: +6,2 %
  - CAGR freight: +8,3%
- CDG‘s transfer ratio remained stable at ~ 35%
- Intercont traffic has grown disproportionately from 35% to 40% passenger share

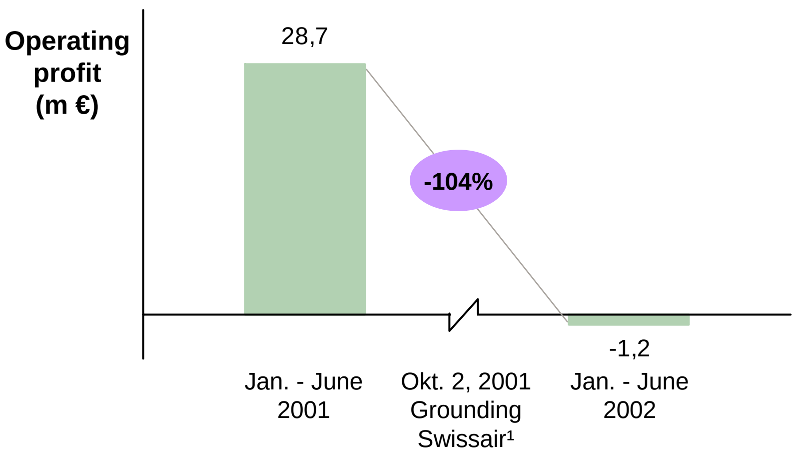
Source: Annual reports, Mercer analysis
1 Only Air France, without KLM
2 Based on seats offered

… however, failing in becoming a primary hub results in a hard landing

ZRH passenger volume 2001 - 2002



Unique operating profit 2001 - 2002

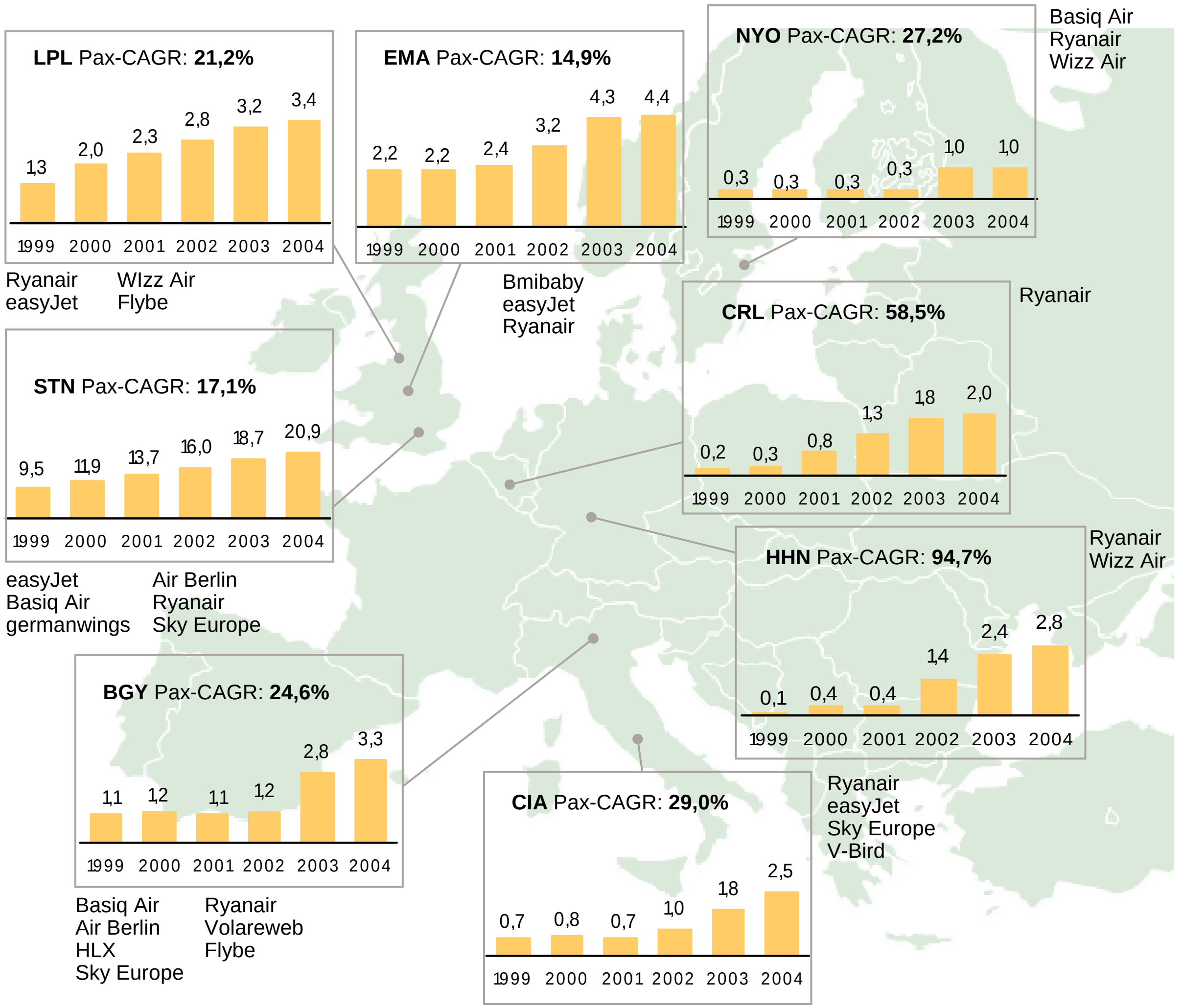


1 Swissair officially went bankrupt on March 31, 2002

Comments

- From 2000 to 2003 passenger and freight volumes decreased by 25% and 27% respectively
- 2004 allowed for a 1.8% / 5,6% increase
- From 2000 to 2004 ZRH lost track of becoming a major hub:
  - Transfer passenger ratio: 44% → 28%
  - Intercont passenger share: 27% → 25%
  - Low cost passenger share: 1% → 9%
  - Swissair / Swiss market share: 61% → 51%
- Despite a moderate rebound in 2005, the future role of ZRH in the Lufthansa / Star Alliance network remains unclear

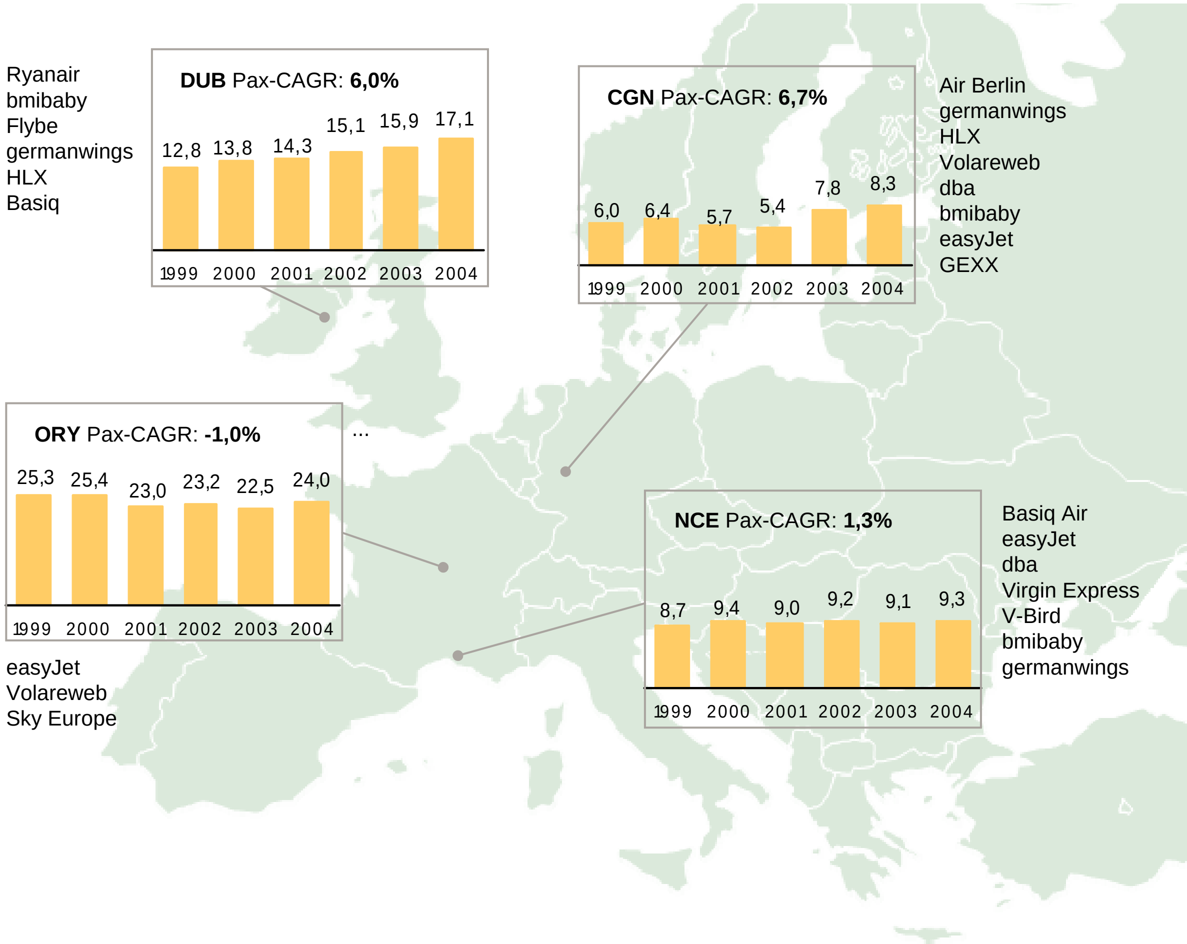
Especially for regional airports low cost has been a driver of enormous growth ...



- For regional airports low cost is the only significant growth opportunity
- Low cost airlines:
  - Stimulate growing demand for air travel
  - Draw existing traffic from other airlines / airports and other means of transportation
- Low cost bases are often located in the periphery of a larger catchment area
- In general, after a period of rapid growth, saturation is reached within a few years
- This is also reflected e.g. by Ryanair's stable average base size of 2.5 m pax

Source: Albatross database, ACI, Mercer analysis

… and also medium sized airports have benefited from the low cost boom



- For medium sized airports low cost:
  - Spurs growth (e.g. DUB, CGN) and / or
  - Mitigates the decline of charter and network travel (e.g. ORY)
- Even in a short timeframe low cost often becomes the most important airline segment (e.g., LC market share 2004 at CGN: 57%)
- Maintaining an acceptable profitability level is key challenge
- E.g. at CGN, EBIT margin dropped from 23% to 10% between 2002 and 2003

Source: Albatross database, ACI, Mercer analysis

Customer requirements differ significantly for hub airports and low cost bases

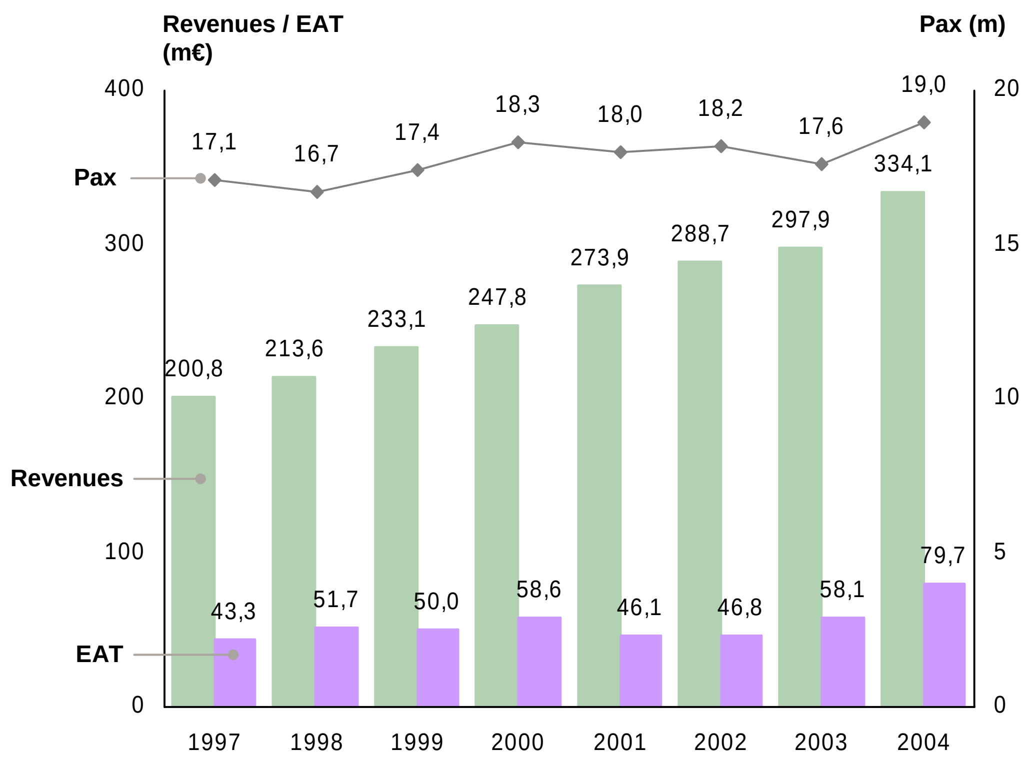
Criteria	Hub airport	Low cost base
Capacity and growth potential	▪ Long term capacity reserves (for more than 50m passengers) ▪ Tailored terminal design	▪ Cost efficient infrastructure ▪ Limited capacity requirements (max. 5 - 10 m passengers)
Efficiency of offering	▪ Fast / convenient transfers ▪ Efficient hub operations (delays, lost baggage, turn around)	▪ Basic offering tailored to particular needs of airlines ▪ Minimum turn-around time
Flexibility / speed	▪ Well-established business processes ▪ Joint planning (medium / long term)	▪ High degree of flexibility ▪ Processes ad hoc adjusted to specific requirements
Fees	▪ Good value for money ▪ Growth fuels unit cost reduction	▪ Minimum fees ▪ „We only pay for what we need“
Service integration	▪ Fully integrated services: Customs, security, ground handling	▪ Simple, reliable services ▪ Collaboration with service providers / outsourcing
Regional connection	▪ Proximity to finance and business centers ▪ Intermodal integration / LD train	▪ Passengers accept significant ground travel time to / from airport

Airport business design has to be tailored towards the needs of the key airline customers

Importance for key customers: Very high ↔ Irrelavant

CPH has been very successful in establishing itself as a secondary hub for the Star Alliance

CPH: Pax, revenues and EAT 1997 – 2004



Comments

- Star Alliance market share at CPH: ~62%[1]
- Clear positioning as Star Alliance regional hub for Northern Europe:
  - Northern Europe: 40% of seats offered
  - Intercont: Only 8% of seats offered
- Outstanding financial performance despite moderate 11% traffic growth between 1997 and 2004
  - Revenue: +66%
  - EAT: +84%
  - Revenue / pax: +49% (11,8 € → 17,6 €)
  - Average profit margin (EAT): 21%

Source: Annual reports, Mercer analysis
1 Based on seats offered

The next years will be exciting and challenging ...

- Due to fundamental changes in the market and competitive landscape, **pressure on airports will increase significantly** over the next years
- Profitable growth in the airport industry requires a sound business design and is based on **five key success factors**: Prudent capital expenditure, strict cost management, establishing a business centric organization, expansion of the non-aviation business and partnering / cooperation with airlines
- Adopting a **clear strategic positioning** is indispensable in order to benefit from the continued growth of particular passenger air travel segments: Only **five business designs** provide the basis for **value creation**
- **Primary hub airports** will leverage the growth of network intercont traffic, a limited number of **secondary airports** will be able to position themselves as regional feeder hubs
- By closely **collaborating with their leading network airline**, those airports must provide **seamless travel** for interconnecting passengers
- In order to take advantage of their large catchment area, **major O&D airports** will have to tailor their offering to distinct customer segments (Network feeding, low cost, charter)
- **Low cost bases** will benefit from the LC boom, however, achieving sustained profitability requires a complete alignment towards highly efficient low cost operations
- **Leisure destination airports** must attempt to stabilize / increase the attractiveness of their region