



Airline strategies in a congested airport environment

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Airline strategies in a congested airport environment

Overview

- 1. Introduction**

- 2. Theoretical framework: Resource-based View**

- 3. Strategies of growth**

- 4. Conclusion**



1. Introduction

➤ Problem:

- 5% p.a. increase of world scheduled traffic measured in terms of revenue passenger kilometres (RPKs) until 2025
- 60 European airports affected by 2025 (EUROCONTROL)
- Long-term barrier due to social and political resistance and environmental concerns

➤ Questions:

- How can airlines manage the future growth of passenger demand inspite of congested airports?
- Which strategies do airlines apply in order to improve their performance?

➤ Focus:

- Full Service Network Carrier (FSNC)
- In particular: **Lufthansa in Frankfurt** and **British Airways in London Heathrow**



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2. Theoretical framework: Resource-based View (I)

➤ **Assumptions** (Barney, 1991)

- Resource heterogeneity → uneven distribution across firms
- Immobile resources → inefficient factor market
 - **Sustainable competitive advantage**

• **Indicators of strategic resources** (Barney, 1991)

- ✓ Value
- ✓ Scarcity
- ✓ Long-lasting
 - ✓ Imperfectly imitable
 - ✓ No strategically equivalent substitutes

• **Primary resource of high strategic relevance for airlines**

- Exclusive access to scarce airport infrastructure
- **SLOTS**

2. Theoretical framework: Resource-based View (II)

Slot = „The scheduled time of arrival or departure available for an aircraft movement on a specific date at a coordinated airport.“
(IATA, Worldwide Scheduling Guidelines, 2008)

- **Allocation of scarce resources at coordinated European airports following common rules for Community airports** (Council Regulation (EEC) No 95/93)
 - **93%** of the available slots at major international European airports (e.g. LHR, FRA, ORY) **based on grandfather rights** (NERA, 2006)
 - ✓ Immobility of slots due to current slot allocation system
= Inefficiency of factor market
 - ✓ Slot = valuable, scarce, long-lasting

- Simple allocation of strategic resources not sufficient – **resource leveraging** necessary (Hamel/Prahalad, 1993)
 - **Slot securing, slot utilisation, and slot extension**



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3. Strategies of growth

3.1 Network structure

3.2 Aircraft size

3.3 Cooperation

3.4 Secondary hub

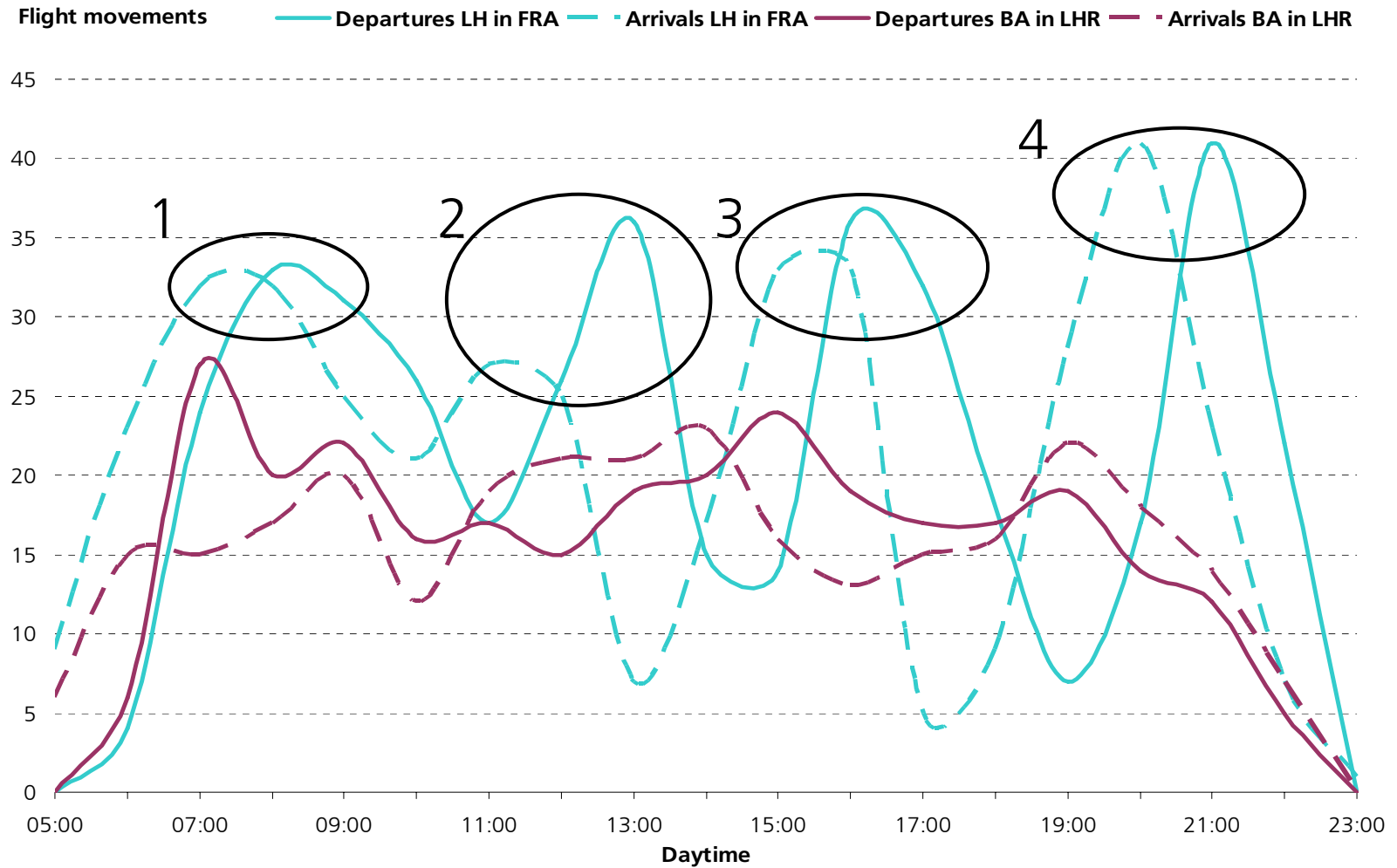


3.1 Network structure (I)

- **The possibility to exploit existing imperfect market structures implies the concentration on central traffic nodes.**
- **Hub & Spoke System: Spatial and temporal concentration**
- **Spatial concentration**
 - **First-mover advantages of former flag carrier**
 - Spatial concentration due to restrictive air service agreements before liberalisation
 - Control over critical resources at the particular hub
 - **Advantages of scarcity for dominant carrier**
 - Expansion of sustainable competitive advantages by creating a local monopoly
 - Absorption of a hub premium for local traffic
 - Lower risks of new entrants = Long-term protection
- **Temporal concentration = Exploitation of further network effects**

3.1 Network structure (II) – Temporal concentration

Arrivals and departures - Comparison of LH in FRA and BA in LHR



Source: OAG (11.07.2007)



3.1 Network structure (III)

➤ Impacts of slot scarcity on H&S networks

- Loss of quality due to restrictions in network planning
 - Trade-off between frequency and destination development (S-curve effect)
- Reduced network connectivity
 - Higher risk of delay
 - Trade-off between flight schedule stability and connectivity

➤ Optimisation of the network structure

- Additional slots
- Additional waves
- **Use of bigger aircrafts**



3. Strategies of growth

3.1 Network structure

3.2 Aircraft size

3.3 Cooperation

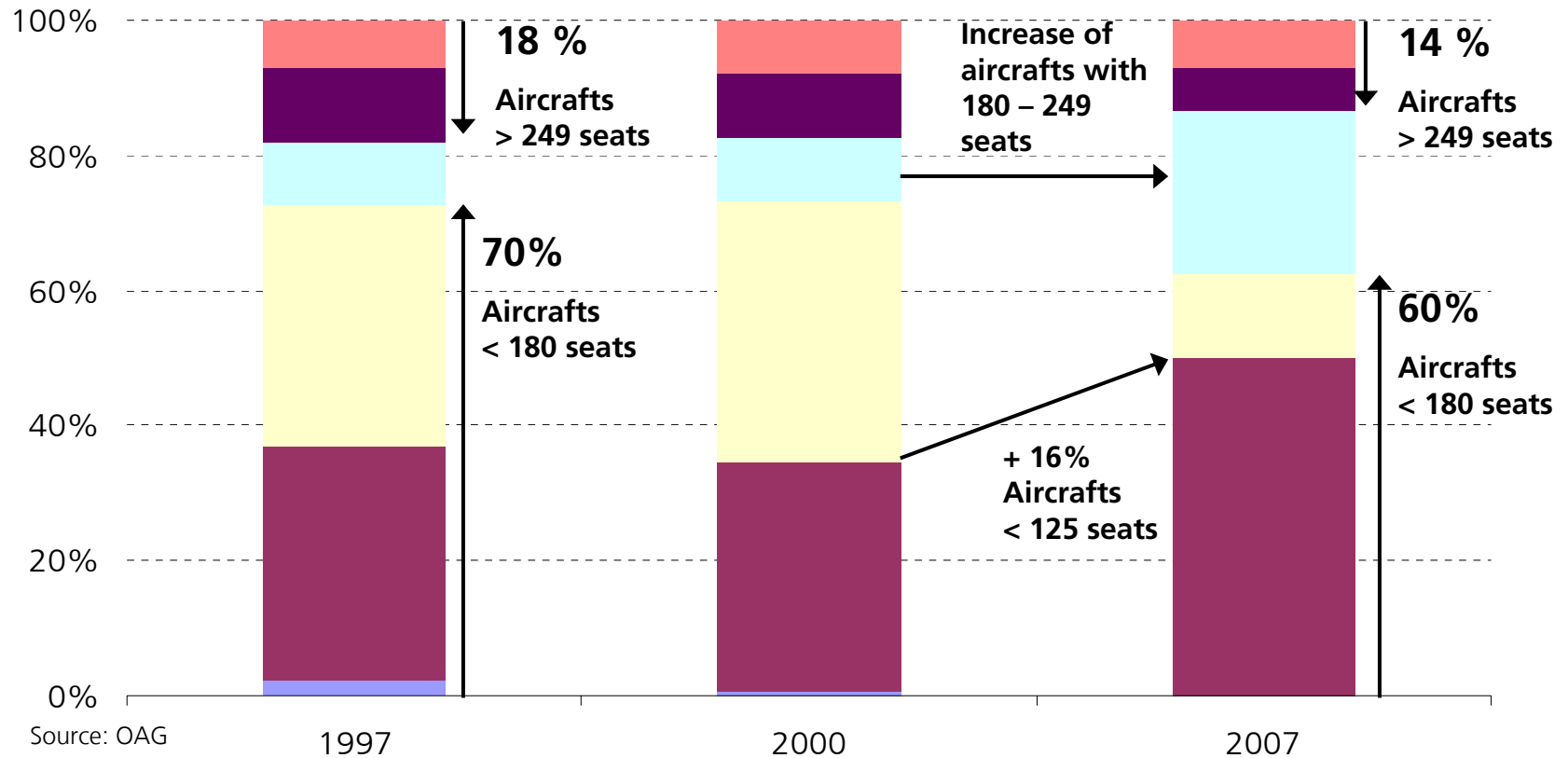
3.4 Secondary hub



3.2 Aircraft size (I)

Development aircraft size LH

■ 1 - 49 seats
 ■ 50 - 124 seats
 ■ 125 - 179 seats
 ■ 180 - 249 seats
 ■ 250 - 349 seats
 ■ over 350 seats



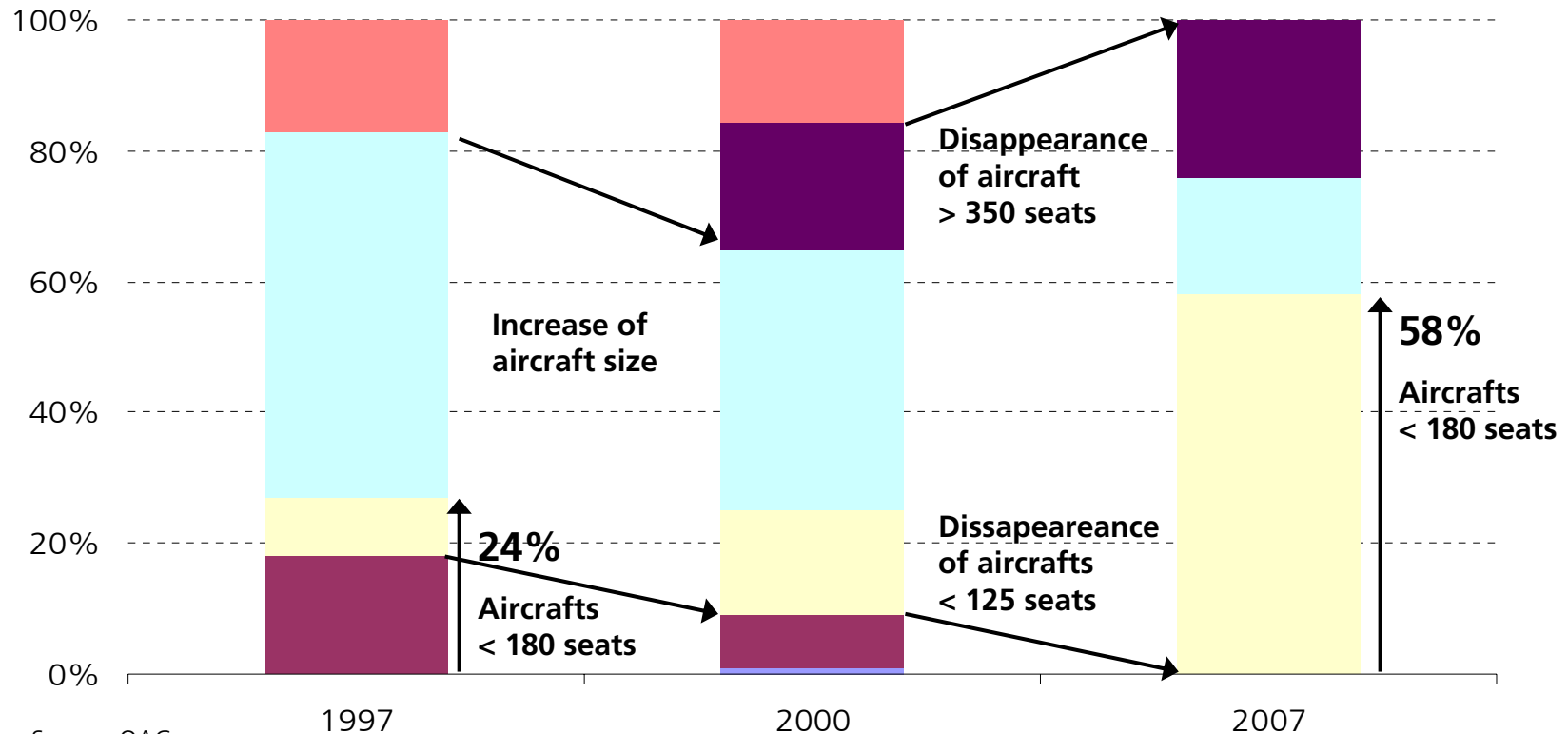
➤ Aircraft size ↓

∅ seat capacity ↓ from 169 (1997) to 159 (2007)

3.2 Aircraft size (II)

Development aircraft size BA

■ 1 - 49 seats
 ■ 50 - 124 seats
 ■ 125 - 179 seats
 ■ 180 - 249 seats
 ■ 250 - 349 seats
 ■ over 350 seats



➤ **Aircraft size ↓**

∅ seat capacity ↓ from 215 (1997) to 183 (2007)





3. Strategies of growth

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3.3 Cooperation (I)

➤ Driver

- Development of a global network
- Market development by combining traffic volumes
- Bypassing legal restrictions based on air service agreements
- Increased presence on foreign markets
- Image development as „Global Player“
- Further exploitation of network effects
- **Slot scarcity**

➤ Operational cooperation - Strategic alliances

➤ Elements

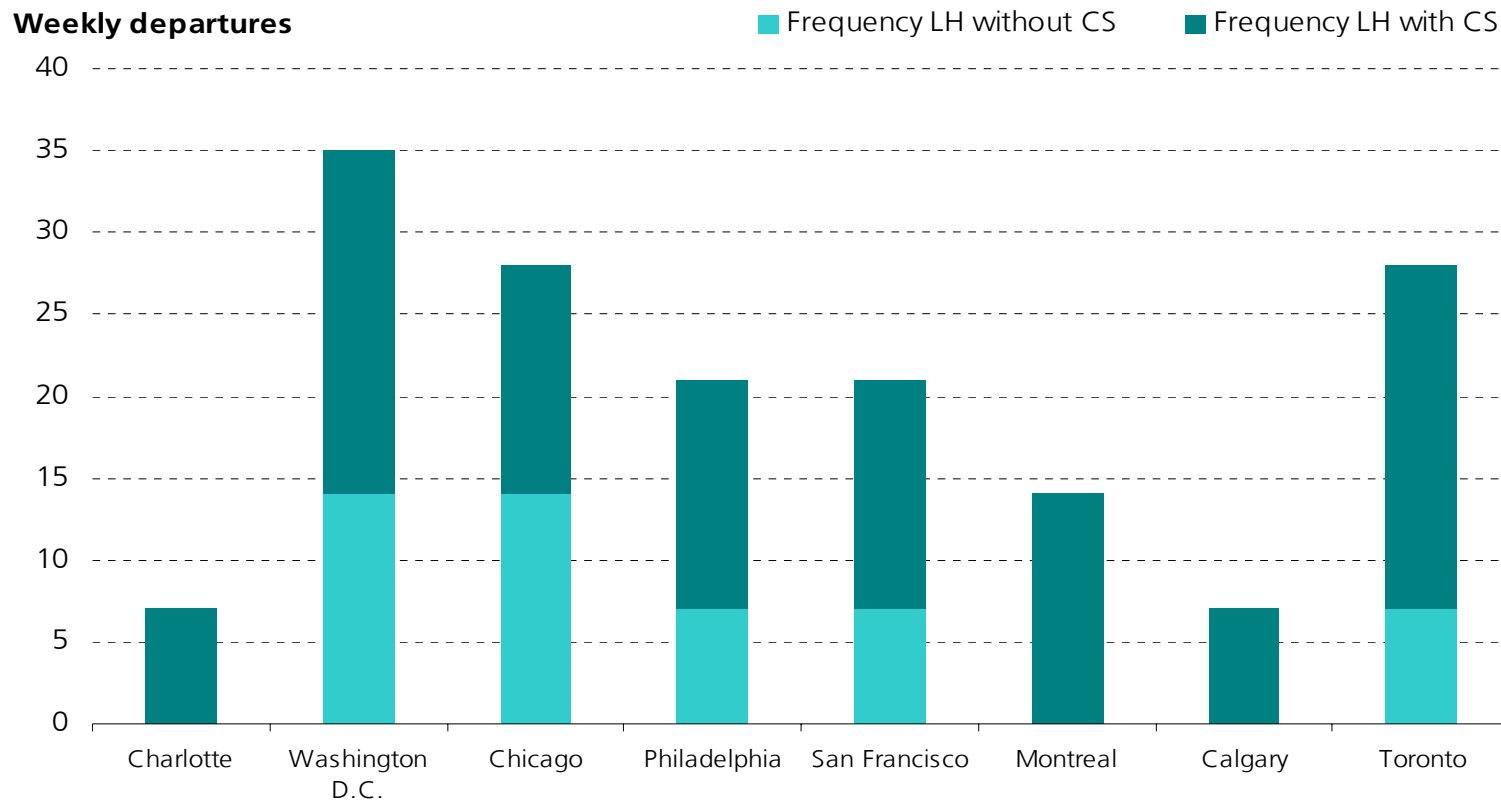
- Code-Sharing as central element
- Integration of frequent flyer programmes
- Joint marketing activities
- Network linkage and optimisation

– **Criteria for partner selection**

- Complementary resources

3.3 Cooperation (II)

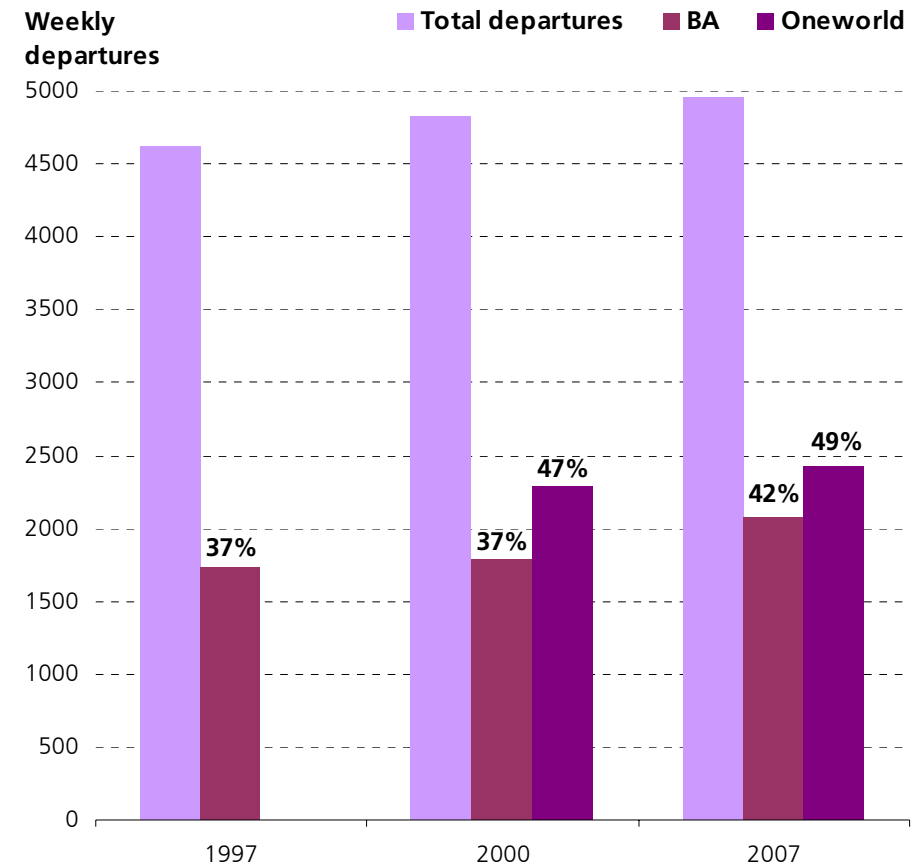
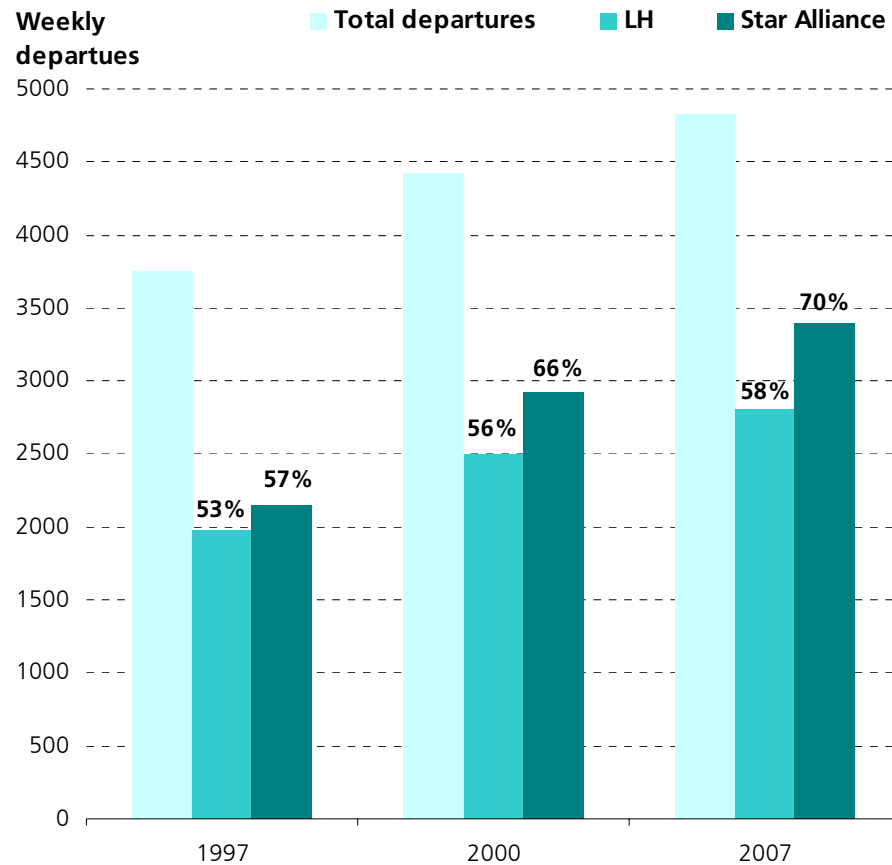
- **Virtual increase of frequencies and destinations by Code-Sharing (CS)**
 - **Optimisation of online-connections**
 - **Network development without further capacity needs**
- Example: Selected routes of LH from FRA to North America



3.3 Cooperation (III)

➤ Higher slot share by combining existing slots

➤ Example: Slot shares LH/Star Alliance at FRA vs. BA/Oneworld at LHR



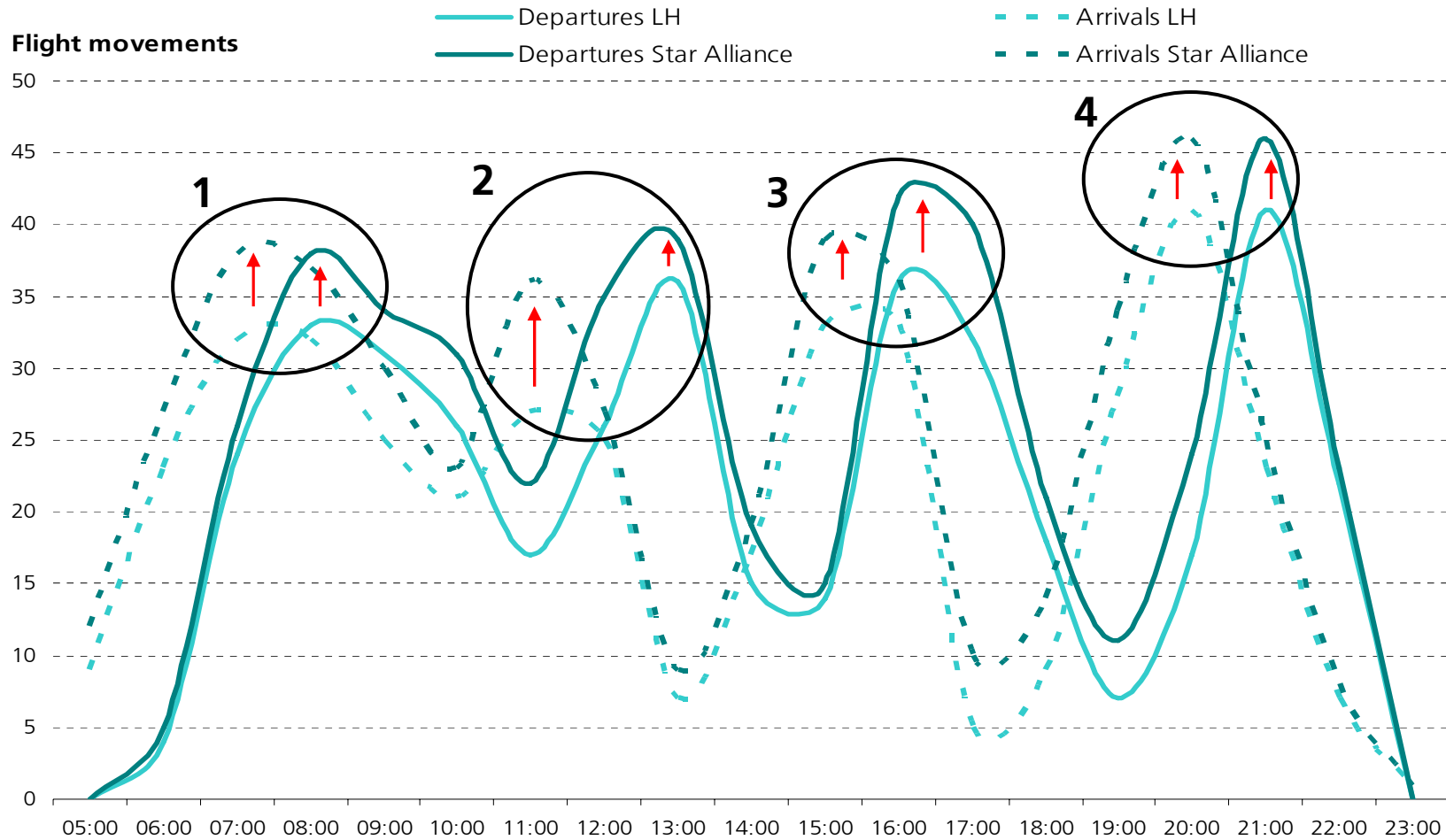
Source: OAG

➤ ↑ passenger benefits (e.g. reduction of MCT) by slot reallocation (Slot-Pooling)

3.3 Cooperation (IV)

➤ ↑ **efficiency of scarce resources by integration in existing wave-system**

➤ Example: Star Alliance in FRA



Source: OAG (11.07.2007)

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3. Strategies of growth

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3.4 Secondary hub (I)

Choice of location - vital location factors:

➤ Infrastructural aspects

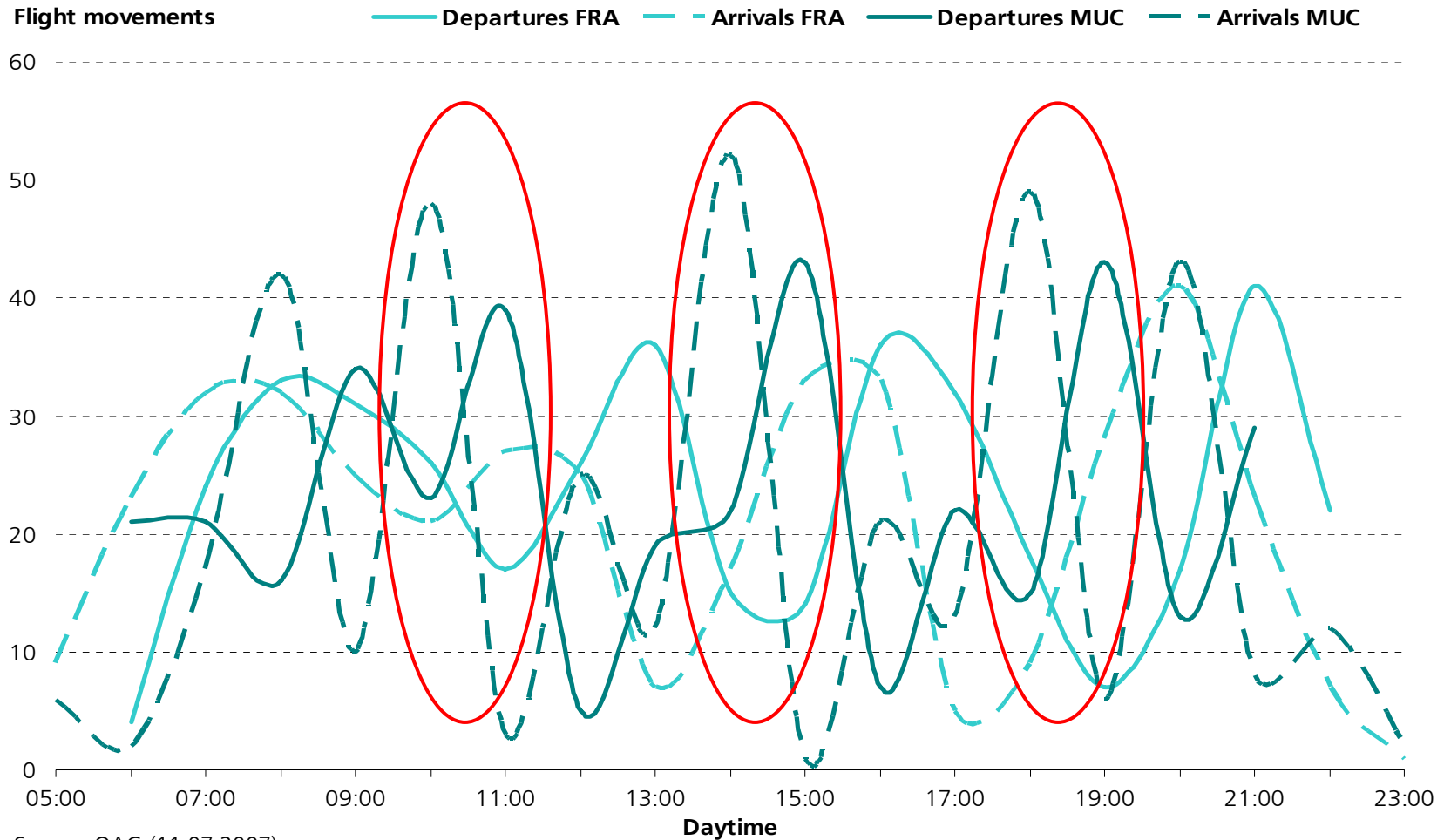
- Available capacity
- Regulatory conditions (environmental restrictions, operation time)
- Transfer capacity: Guarantee MCT
- Potential for future capacity expansion
- Fees and taxes

➤ Geographical aspects

- Centrality of geographic location
- Catchment area
- Distance to primary hub – **Risk of cannibalisation**

3.4 Secondary hub (II)

- **Synchronous operation = ↓ risk of cannibalisation and ↑ of frequencies**
- Example: Synchronous wave-system of LH in FRA and MUC



Source: OAG (11.07.2007)

3.4 Secondary hub (III)

➤ Increase of frequencies through secondary hub

➤ Example: Hamburg to Rom with LH (12.10.2008)

Departure time	via FRA	via MUC	Arrival	Connection	Arrival in Rom
06:30		✓	07:45	08:30	10:00
07:00		✓	08:15	10:50	12:20
07:20	✓		08:35	10:55	12:30
07:30		✓	08:45	10:50	12:20
08:10	✓		09:25	10:55	12:30
08:30		✓	09:45	10:50	12:20
09:20	✓		10:35	12:15	14:00
10:05	✓		11:20	12:15	14:00
12:40		✓	13:55	15:20	16:50
13:20	✓		14:35	15:40	17:35
13:20	✓		14:35	16:55	18:40
13:40		✓	14:55	16:45	18:20
14:05	✓		15:20	16:55	18:40
17:35		✓	18:50	21:15	22:45
18:25	✓		19:40	21:55	23:40
18:55		✓	20:10	21:15	22:45
19:35	✓		20:50	21:55	23:40

➤ 17 possible connections

➤ 9 via FRA

➤ 8 via MUC

Source: www.lufthansa.com (29.08.2008)



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4. Conclusion

- **Constant growth in passenger demand**
- **Airlines and airport face long-term capacity constraints**
- **Airline strategies for efficient usage of scarce resources :**
 - **Network structure**
 - **Aircraft size**
 - **Cooperation**
 - **Secondary hub**
- **Scarcity = curse and blessing**



Thank you for your attention!