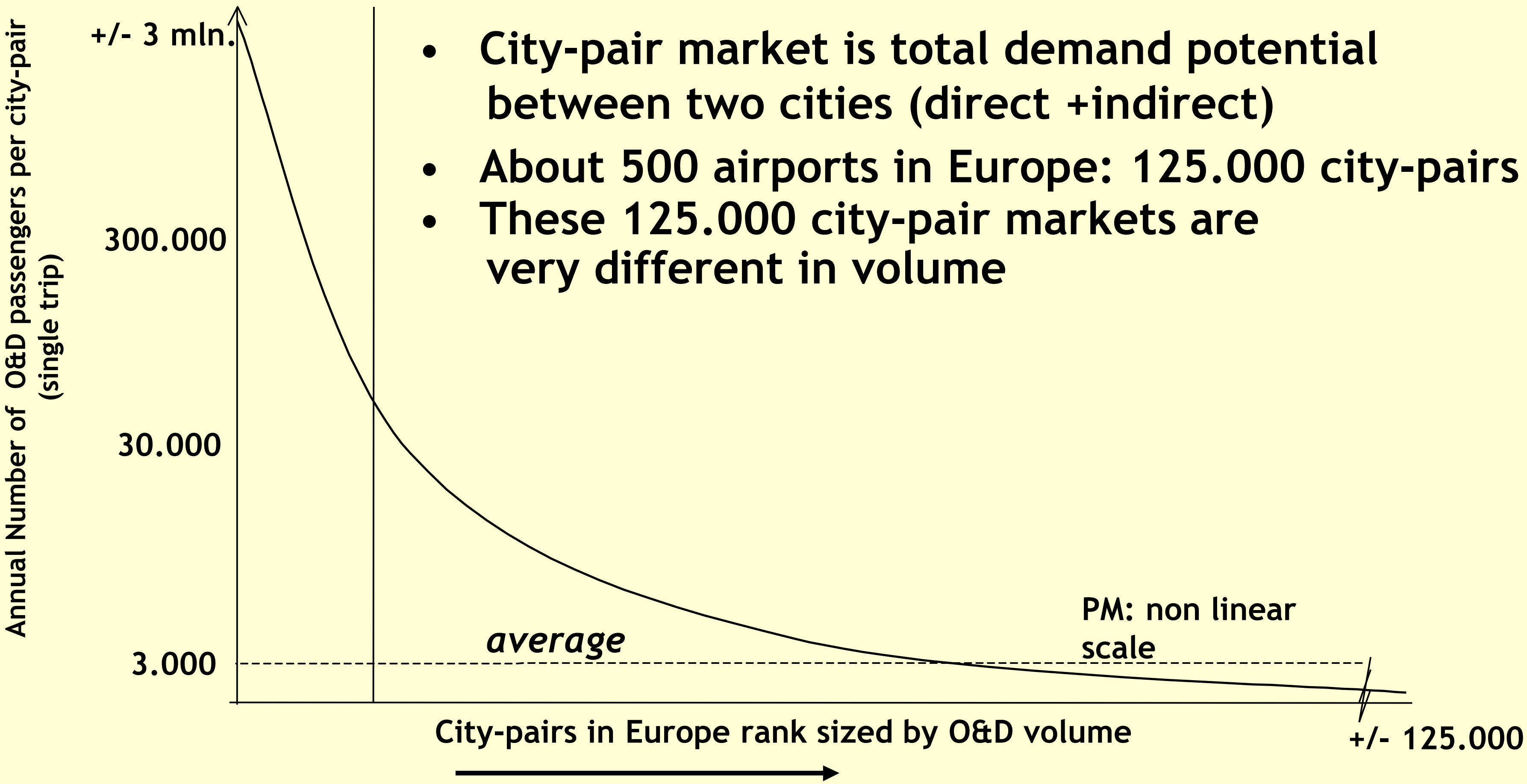
The Hub-and-Spoke Concept and LCC’s

- Market Segmentation between FSC’s and LCC’s
- Sustainable hub-and-spoke systems ?
- The future of FSC’s and LCC’s

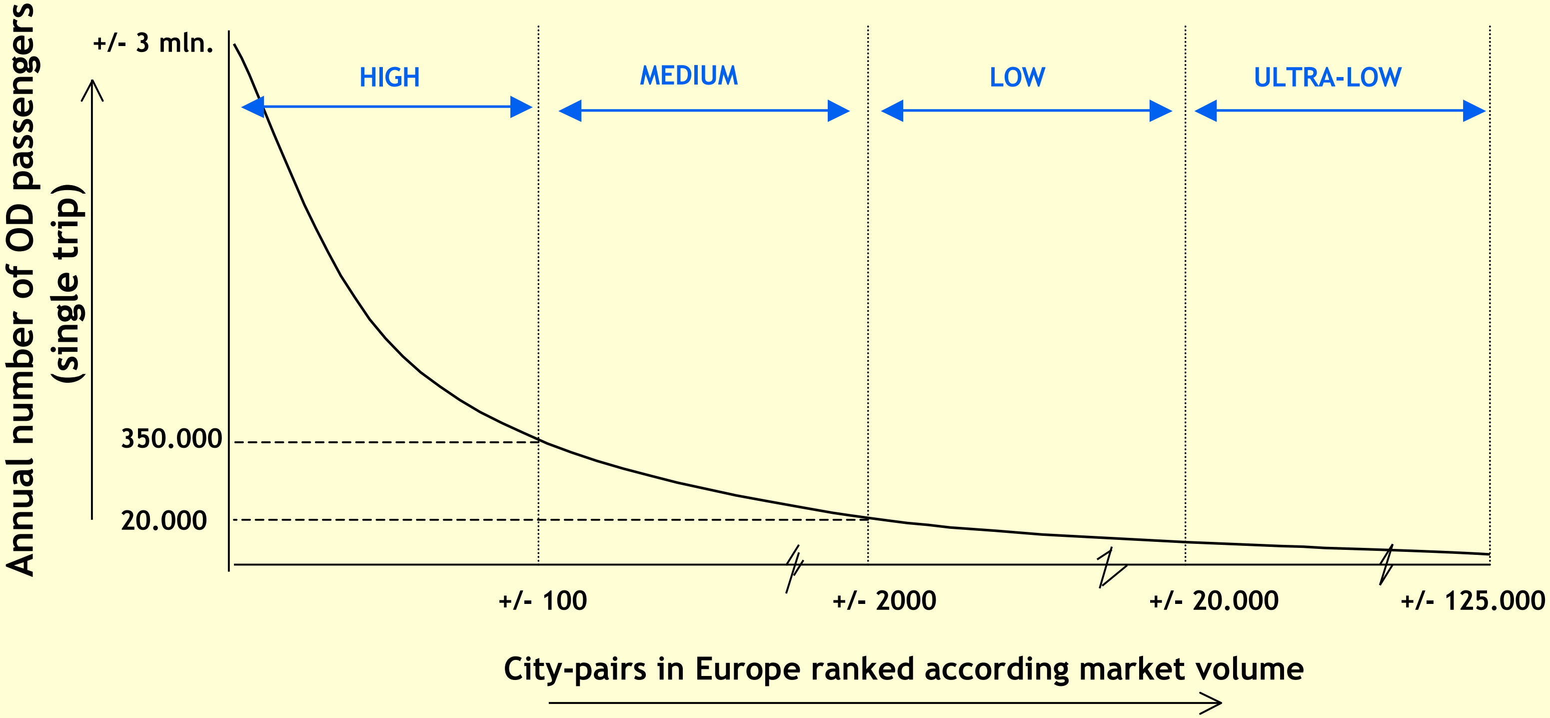
Jan Veldhuis
Amsterdam Aviation Economics
German Air Transport Research Society
Berlin, 17 May 2003

Segmentation of city-pairs to market density (Europe)

- City-pair market is total demand potential between two cities (direct +indirect)
- About 500 airports in Europe: 125.000 city-pairs
- These 125.000 city-pair markets are very different in volume

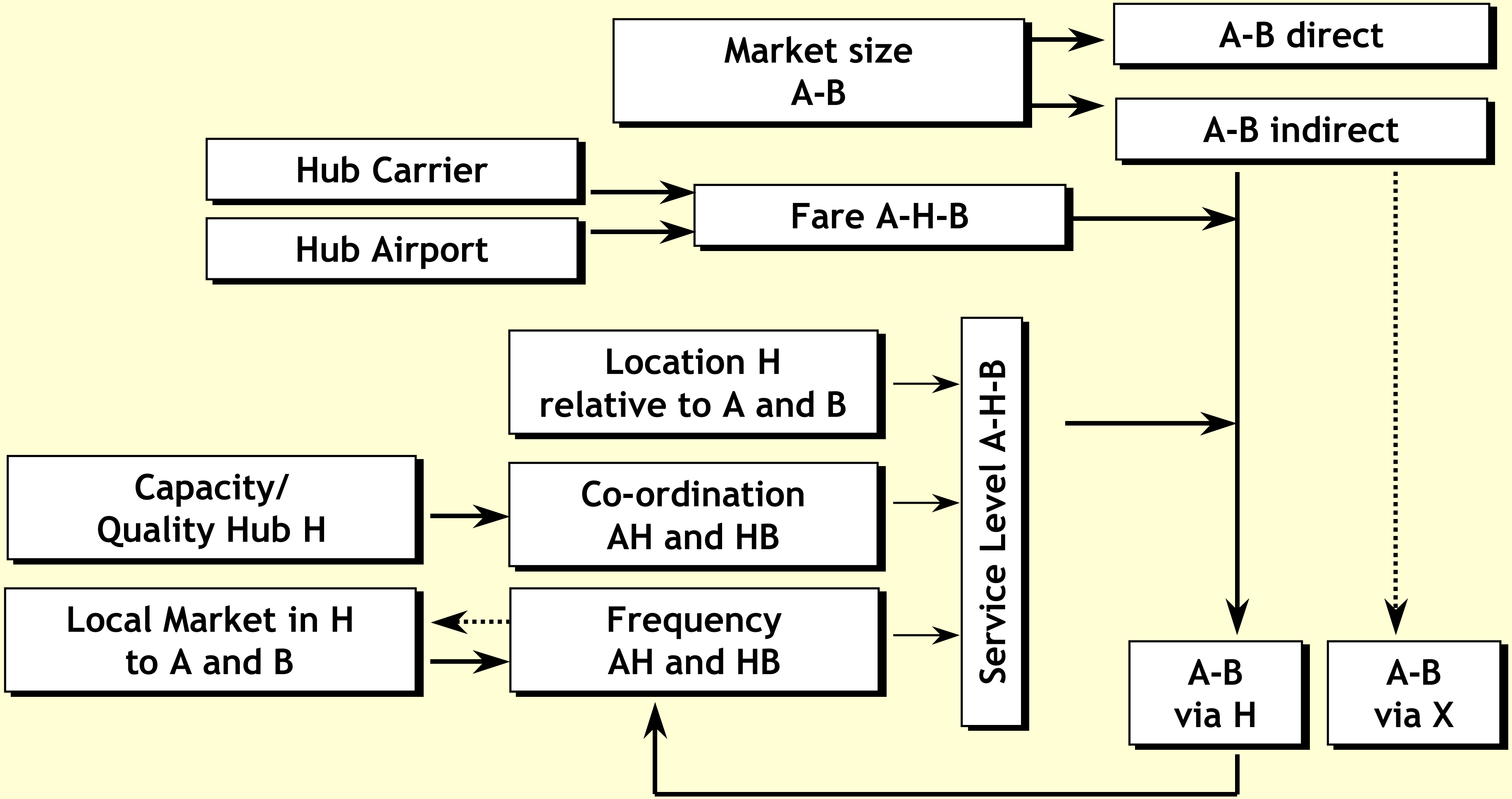


Segmentation of city-pairs to market density (Europe)

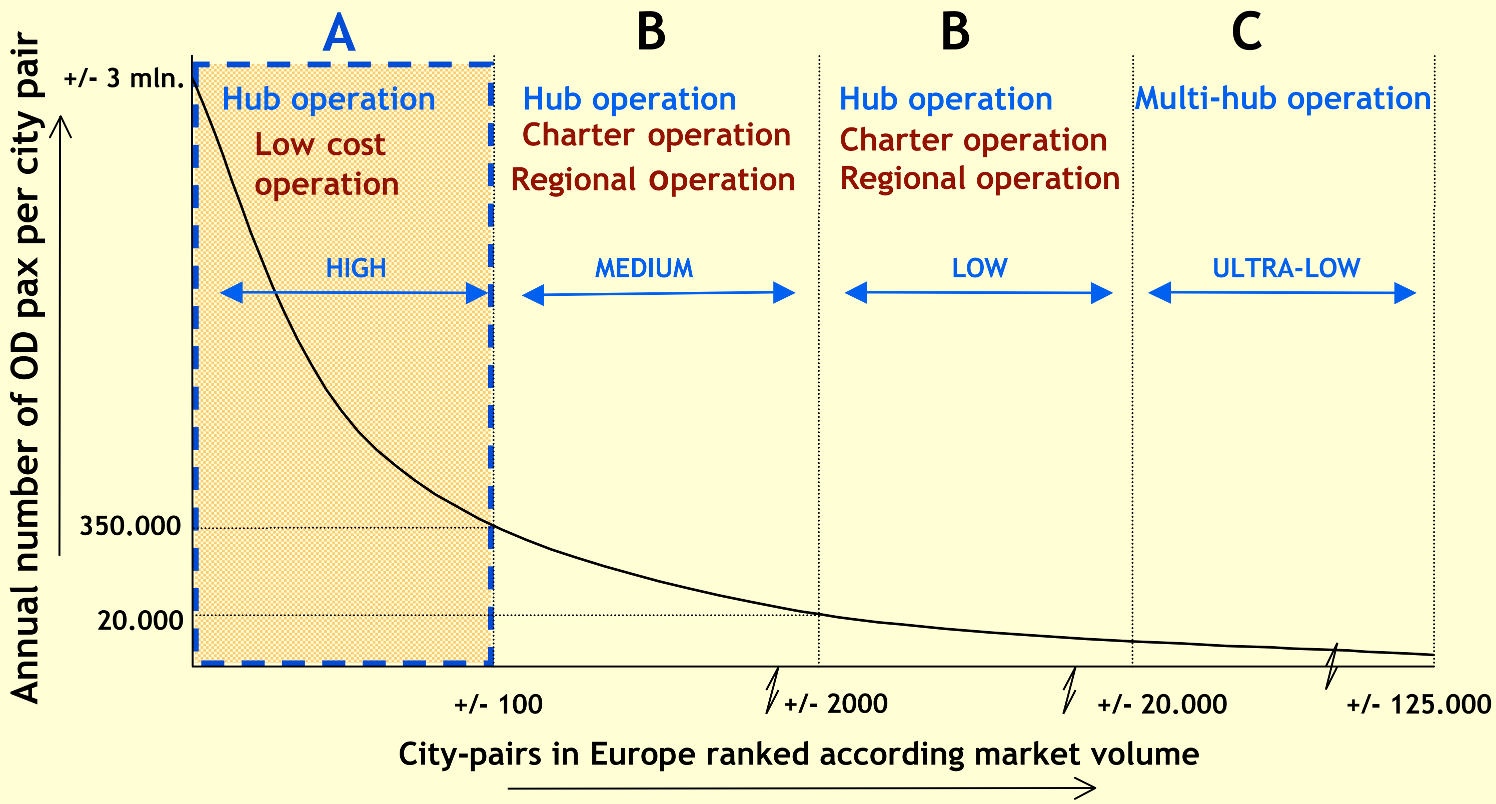


Intra-Europe	TOTAL	HIGH (>350.000 pax)	MEDIUM (20.000-350.000 pax)	LOW (<20.000 pax)	ULTRA-LOW
Market size (mln. pax)	400	60	120	120	100
Market size %	100 %	15 %	30 %	30 %	25%
Number city-pairs *) (ca.)	125.000	100	1.900	18.000	105.000
Number city-pairs %	100 %	0,1 %	1,5 %	14,4 %	84 %
Number of pax per city-pair (av. per day)	9	1600	175	18	3

Mechanism of a *hub-and-spoke* system



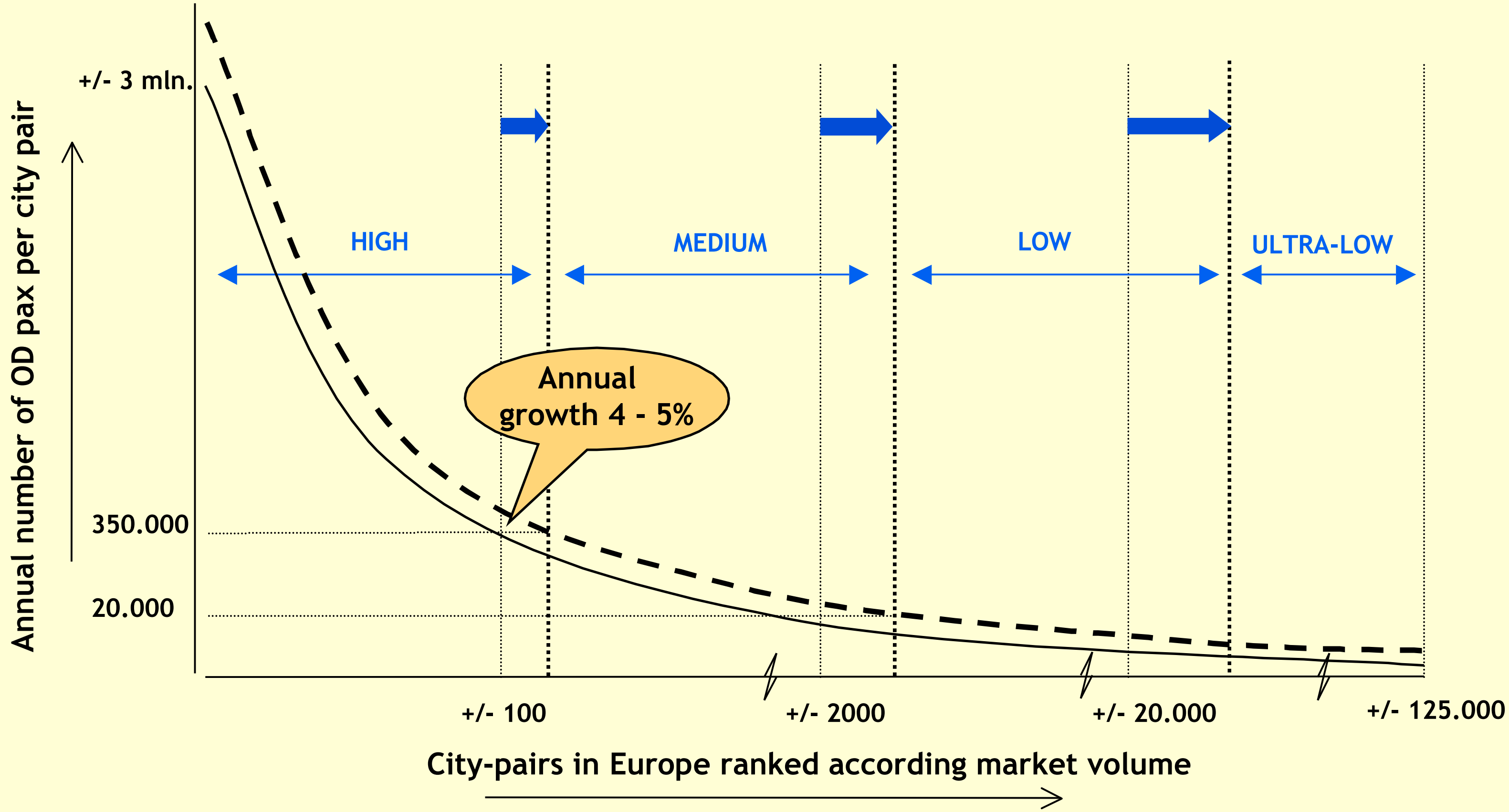
Competition between ‘full service network-carriers’ and low-cost carriers)



- hub carrier competes with LCC in segment A (point-to-point)
- hub carrier is dominant in segments B
  (density too low for point-to-point operations)

AAE

Effect of growth in market demand



Demand growth creates the possibility for the hub carrier to include new low density markets in 'single hub operations'

Financially sustainable hubs ?

- Yields on O/D higher than connecting traffic
- Large home markets: better yields achievable
- Marginal contribution to profit
  of connecting traffic questionable
- High yields achievable on connecting traffic on:
  - low density markets (if possible by single hub operations)
    (not served directly either by FSC or LCC)
  - unique destinations
- Key success factors:
  home market size and peak hour capacity

Key success factors for hubs

	LHR	CDG	FRA	AMS	BRU
Hub Carrier	+	+	+	+	
Location	+	++	+++	++	++
Local Market (M)	65	49+	23+	21	??+
Capacity	+	+++	+	++	++

Low Cost Carriers: possible developments

- **Reduction of costs of FSC**
    - distribution (internet sales)
    - other product characteristics

- **LCC's may see cost increasing**
    - develop connecting traffic ?
    - long haul operations ?
    - low labour costs sustainable ?

- **Three types of development**
    - current development instable
    - collapse of FSC's will severely affect network quality
    - code-sharing /alliances between FSC's and LCC's ?