European LCCs going hybrid: An empirical survey

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Agenda

- Motivation/Background

- Textbook definition of pure/archetypical LCC

- Data for empirical survey

- Empirical results: Classification of airline's business models

- Conclusions/discussion

Motivation / Background

- Significant (and still growing) market share of LCCs in Europe.

- Obviously different strategies within the LCC segment.

- Market observers see trends towards "hybridization" and/or "converging business models",e.g.:

  "On many fronts - pricing, product offering, distribution, fleet, network design and even cost structure - the previously obvious and often blatant differences between **budget and legacy carriers** are now no longer so apparent. **This has resulted from the movement of both parties in the same direction, toward the mainstream middle.**"
  Airline Business, May 2009 (emphasis added).

Motivation / Background

- Dynamic market environment with recent changes, e.g. some LCCs offering transfer flights or can be booked via GDS.

- Yet, very limited empirical analysis of "hybridization".

Aim of the paper

It is examined

- to what extent carriers today blend low-cost characteristics with the business characteristics of traditional full-service airlines, and

- which characteristics remain distinct between LCCs and traditional full-service airlines and which tend to be common for all carriers.

Data – Top 10 LCC markets in Europe

Rank	Country	Offered seats	Starts	Routes
1	Great Britain	1,398,374	9,963	1,114
2	Spain	1,028,513	5,892	727
3	Italy	906,775	5,727	780
4	Germany	789,398	5,124	629
5	France	375,777	2,367	376
6	Ireland	303,132	1,596	193
7	Norway	180,316	1,133	170
8	Netherlands	113,556	724	120
9	Switzerland	111,463	748	117
10	Poland	108,409	617	164

Sample week July 2009, source: DLR (2009).

Data – LCCs included in survey (25)

Aer Lingus	Blu Express	Corendon	Jet2	Ryanair
Air Baltic	Blue1	easyJet	Jet4you	Transavia
Air Berlin	Blue Air	Flybe	Meridiana Fly	Vueling
Air Italy	bmibaby	German-wings	Niki	Wind Jet
Baboo	Brussels Airlines	Iceland Express	Norwegian	Wizz Air

Selection based on LCC monitor by DLR and ADV
Airline in the survey has to serve at least one airport in UK, ES, IT, DE.

Data – Control group

- Alitalia (AZ)

- British Airways (BA)

- Iberia (IB)

- Lufthansa (LH)

(only short- and medium-haul services)

Textbook definition of "archetypical" or "pure" low cost model

- point-to-point network
- single type of aircraft
  (usually Airbus 320 or Boeing 737 family)
- single class cabin with high seat density
- predominant use of so-called secondary airports,
- direct sales of tickets, especially over airline's
  own website
- no frills such as complimentary in-flight-services
  or frequent traveller programs
- only one one-way fare per flight available at each
  point in time
 (with trend towards ancillary revenues)

Elements of the archetypical LCC business model (14 criteria)

No.	Element	Value for LCC
1	Fleet homogeneity index	>0.75
2	Single class cabin	Yes
3	Secondary airport index	>0.5
4	Direct sales only	Yes
5	No complimentary in-flight-service with lowest fare category	Yes
6	No complimentary in-flight-service with highest fare category	Yes
7	No free checked baggage with lowest fare category	Yes
8	No free checked baggage with highest fare category	Yes
9	No frequent flyer program	Yes
10	Point-to-point services only	Yes
11	No code sharing	Yes
12	One-way fares only	Yes
13	No more than one fare at any time	Yes
14	No more than two fares at any time	Yes

Fleet homogeneity index

- Based on 10 aircraft „families"

    A320 / B737 / B757 / Fokker / Dash /

    Embraer / BAe-Avro / MD / Saab / ATR

- Index: Number of A/C family with largest number in fleet divided by total number of A/C
- LCC-criterion fulfilled, if index > 0.75
- Maximum value: '1' (13 airlines, e.g. Ryanair)
- Minimum value in LCC survey: '0.55' (Meridiana)
- Maximum number of families in fleet: 3
- Mean value: '0.86' due to large number of airlines with homogenous fleet
- Full-service airlines between 0.62 (LH) and 1 (IB)

Fleet homogeneity index and fleet size
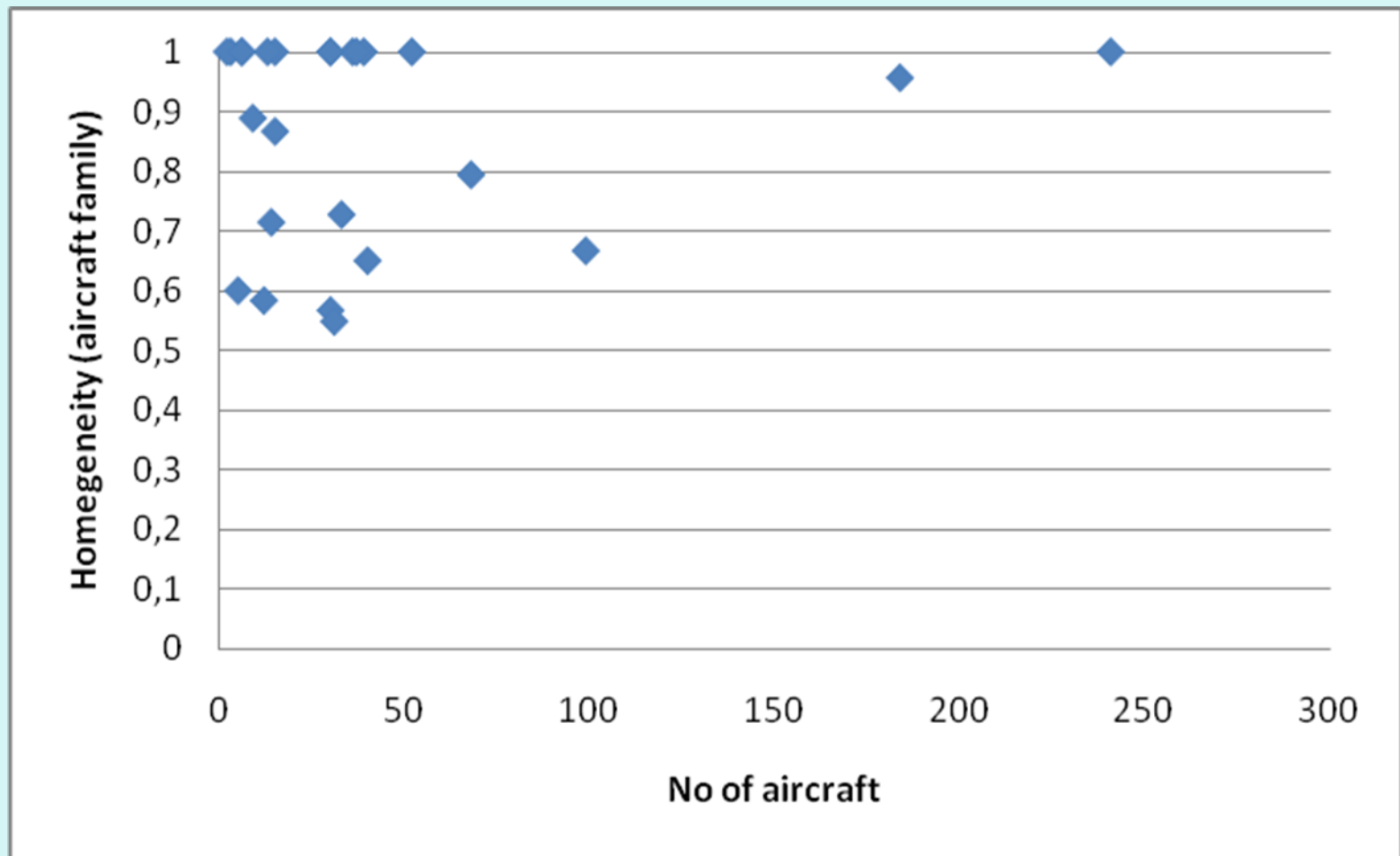

Source: Own calculations.

Secondary airport index

- No clear-cut definition for secondary airport

- Our approach: ***Airport not being served by one of the four full service airlines in the control group with aircraft above 100 seats.***

- Secondary airport index defined as weighted ratio of secondary airports to total number airports served by LCCs

- Weights according to number of destinations served from airport by the considered carrier

Secondary airport index

- Not covered: Low-cost terminals at primary airports (e.g. Bremen)

- Differences between winter and summer season

- Secondary airport index between '0' (e.g. Brussels Airlines) and 0.75 (Corendon – but only few airports served) – Ryanair (0.6 due to many airports in Spain/Italy)

- Average value: 0.25 (median: 0.15) with only three airlines above threshold

Secondary airport index and number of airports served
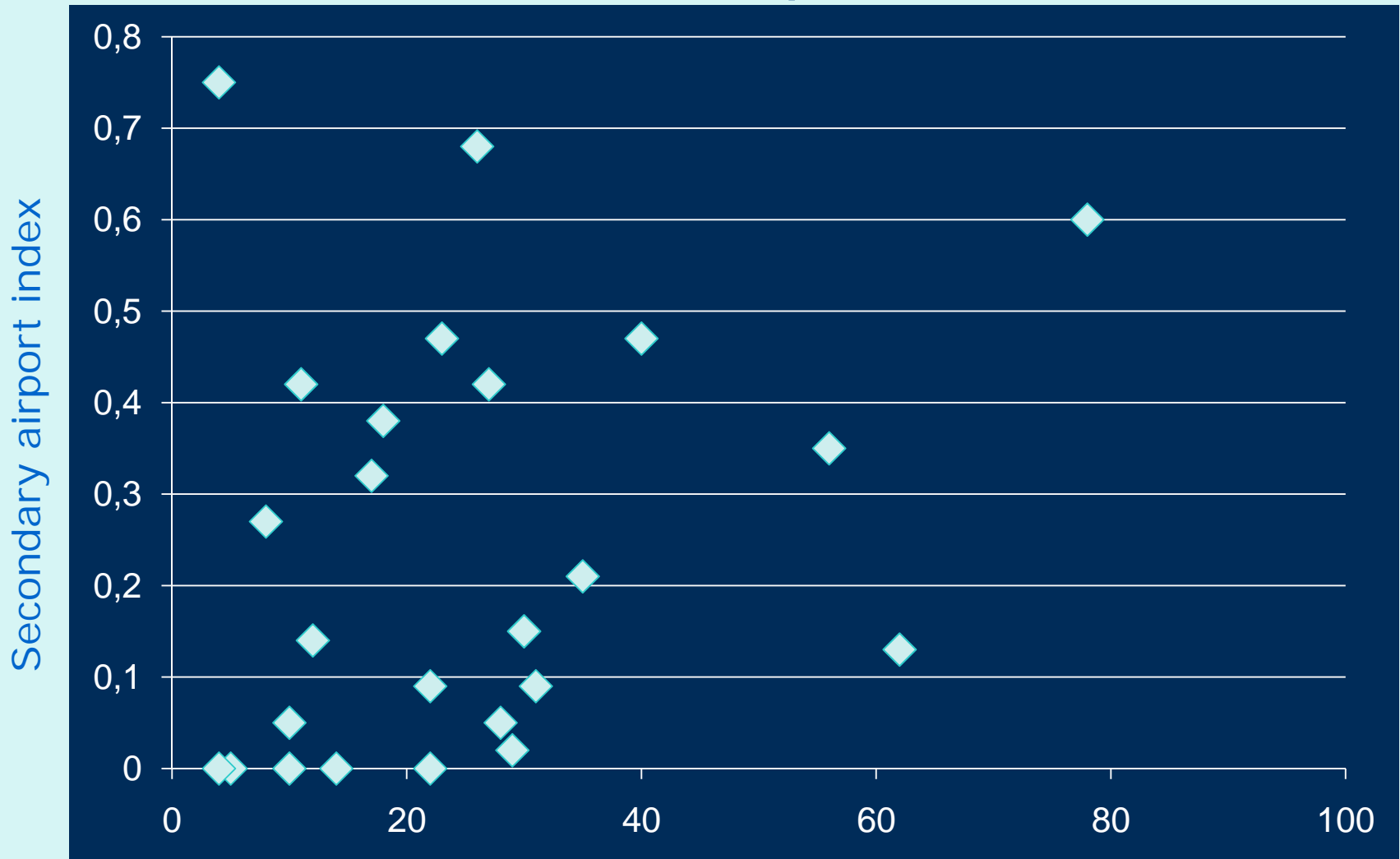
Number of airports served in four selected countries

Classification of airlines' business model

Easiest way: adding up 14 criteria, with 14 being the maximum value
(Simple low-cost carrier index)

Type	Airline	Value
I **Pure low-cost carrier**	**Ryanair**	**14**
	Jet4you	**13**
	Corendon	**12**
	Blue Air	**11**
	bmibaby	
	Easyjet	
	Jet2	
II **Hybrid carrier with dominating low-cost elements**	**Blu Express**	**10**
	Iceland Express	
	Wizz Air	
	Vueling	**9**
	Aer Lingus	**8**
	Wind Jet	

Classification of airlines' business model

Easiest way: adding up 14 criteria, with 14 being the maximum value
(Simple low-cost carrier index)

Type	Airline	Value
III **Hybrid carrier with dominating traditional full service elements**	**Norwegian**	**7**
	Transavia	
	Germanwings	**6**
	Air Italy	**5**
	Niki	
	Flybe	**4**
	Meridiana fly	
IV **Traditional full service airlines**	**Air Baltic**	**3**
	Air Berlin	
	Baboo	**2**
	Blue1	
	Brussels	

Traditional network carrier either '0' or '1'.

Classification of airlines' business model
Grouping of related criteria (Sub indices)

Sub-Index	Elements
I	**Aircraft index**
	Fleet homogeneity index
	Single class-cabin
II	**Airport index**
	Secondary airport index
III	**Service index**
	Direct sales only
	No complimentary in-flight-service with lowest fare category
	No complimentary in-flight-service with highest fare category
	No free checked baggage with lowest fare category
	No free checked baggage with highest fare category
	No frequent flyer program
IV	**Route index**
	Point-to-point services only
	No codesharing
V	**Pricing index**
	One-way fares only
	No more than one fare at any time
	No more than two fares at any time

Classification of airlines' business model
Weighted low-cost carrier index

Type	Airline	Value
I **Pure low-cost carrier**	Ryanair	1
	Corendon	0.93
	Jet4you	0.8
	Wizz Air	0.77
II **Hybrid carrier with dominating low-cost elements**	bmibaby	0.73
	Easyjet	0.73
	Blu Express	0.7
	Iceland Express	0.7
	Jet2	0.67
	Blue Air	0.63
	Aer Lingus	0.53
	Vueling	0.53

Classification of airlines' business model
Weighted low-cost carrier index

| Type	Airline	Value
III **Hybrid carrier with dominating traditional airline elements**	Air Italy	0.47
	Transavia	0.47
	Wind Jet	0.47
	Germanwings	0.43
	Niki	0.43
	Norwegian	0.43
	Flybe	0.33
	Meridiana fly	0.3
IV **Traditional full service airlines**	Air Berlin	0.23
	Baboo	0.17
	Blue1	0.17
	Air Baltic	0.13
	Brussels	0.1

Classification of airlines' business model
Average and extreme values
with respect to sub-indices
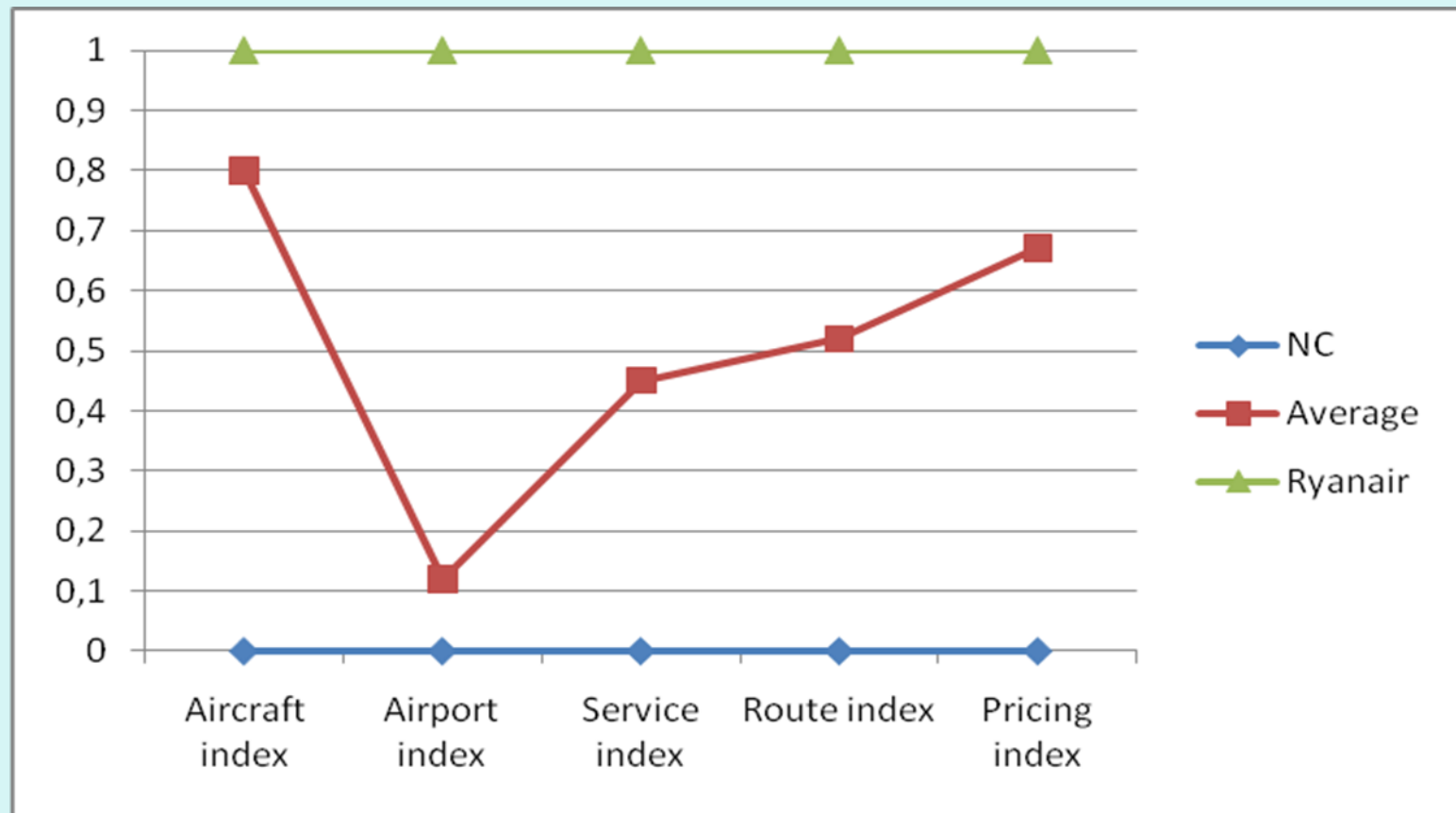
Classification of airlines' business model

Selected airlines
with respect to sub-indices
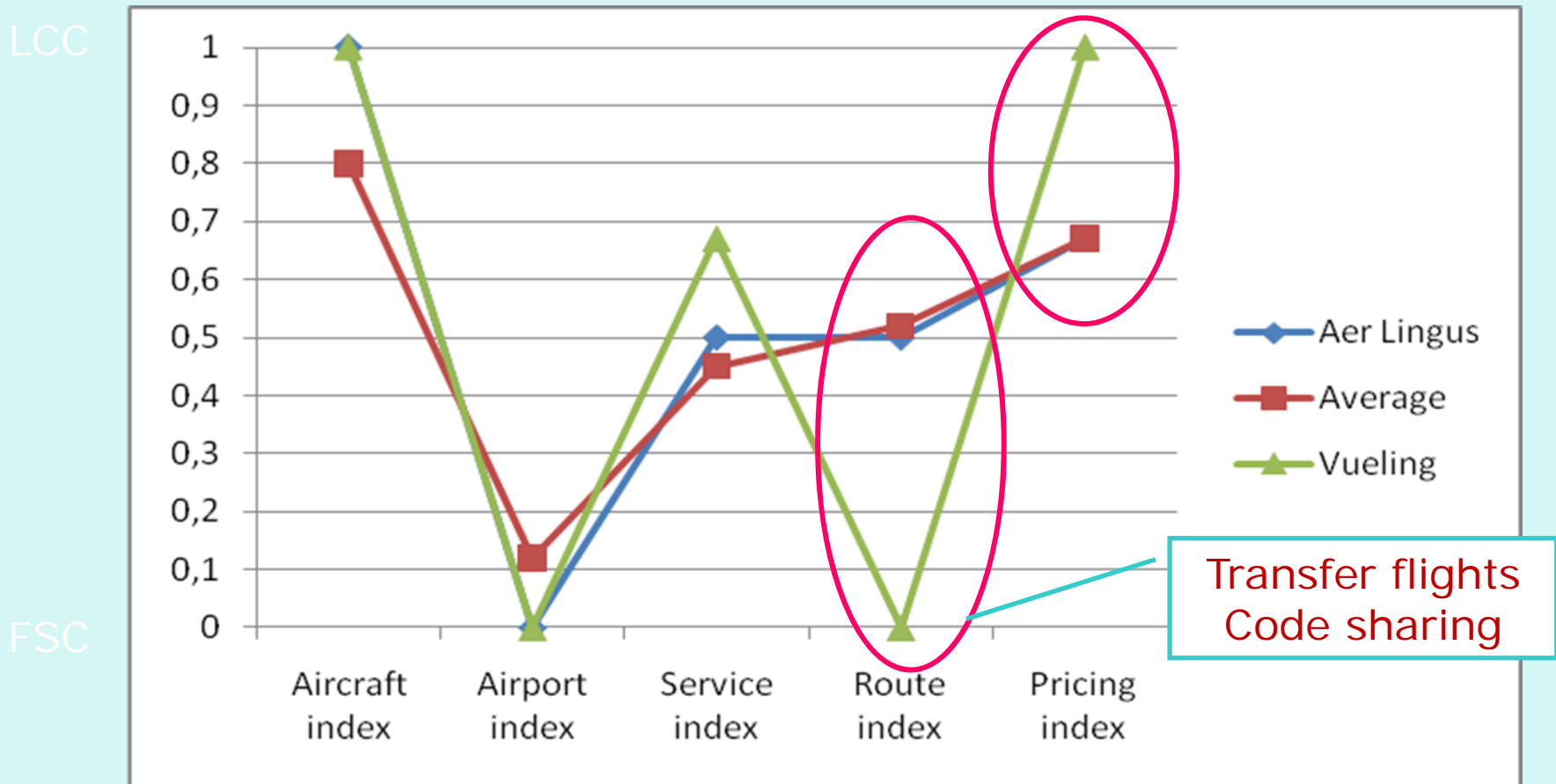
Conclusions and discussion I

- Large variety within a group of airlines typically considered to be low-cost carriers

- Only few airlines qualify as LCC in a narrow sense ('pure' or 'archetypical' model, esp. Ryanair)

- With respect to the control group of four traditional network airlines, hardly any convergence can be observed with respect to the selected criteria

Conclusions and discussion II

- Limitations:
  - Productivity and costs cannot be observed for many airlines (lack of reliable data)
  - Fares have not been observed

- Selection/weighting/grouping of criteria always matter of discussion (=> transparency)

- Work in progress:
  - Larger number of markets
  - Including seat density
  - Repeated analysis in order to identify trends (current study only 'snapshot')
  - Methodological aspects, e.g. secondary airport index

Thank you very much for your attention!