Regulierung deutscher Flughäfen: Zwischen Reform und Restauration

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Price cap Regulierung für den Flughafen Hamburg

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Bonn, 2 Juli 2001

Ziele der Regulierung

- **Effiziente Preise**
  - **keine Monopolgewinne**
  - **Knappheitspreise bei (temporär) begrenzten Kapazitäten**
  - **Knappheitspreise für Umwelt (Internalisierung)**
- **Kosteneffizienz**
  - **Optimaler Einsatz von Produktionsfaktoren und Technik**
- **Gleiche Zugangsbedingungen**
- **Anreize zu Investitionen und Innovationen**
- **Planungssicherheit**
- **Geringe Regulierungskosten**

Reform der Airport Regulierung

- **Verstärkung des Wettbewerbs**
  - **Open skies**
  - **Privatisierung und Beteiligungsbeschränkungen**
  - **Slotbörse**
- **Effektive Regulation:**
  - **Kein single till**
  - **Unabhängige Regulierungsinstanz**
  - **Designierung von Airports mit Monopolmacht**
  - **Bestimmung des X-Faktors über Benchmarking**

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Zwischen Reform und Restauration:

- Wo stehen wir?
- Wird das Gutachten der Monopolkommission zu einer Reform führen?
- Prüfe die Punkte: Effektive Regulierung und Verstärkung des Wettbewerbs

Regulierung deutscher Flughäfen:

Effektive Regulierung:

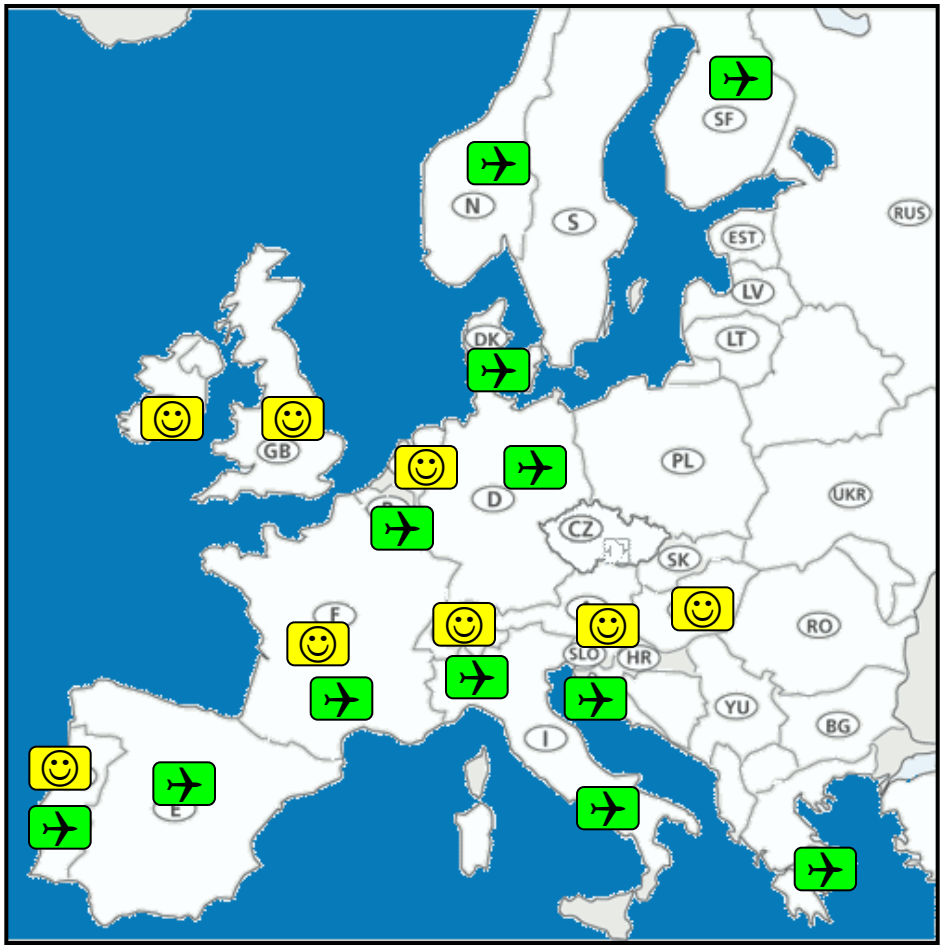
- **Designierung von Airports mit Monopolmacht**
  - **“Airports are exploiting, in many cases, their natural monopoly position” (IATA, 2007)**
  - **“Airports are in tough competition” (ADV, 2007)**
- **In Australien, UK und Niederlande geprüft.**
- **In Deutschland: Wissenschaftliche Studien von Malina (2010) und Maertens (2013)**
- **LVK: *„..Bundesministeriums für Verkehr und digitale Infrastruktur kann nicht ausgeschlossen werden, dass manche Flughäfen bei bestimmten Diensten gegenüber den Luftverkehrsgesellschaften eine Monopolstellung einnehmen.“***
- **Keine Studie. EU-Engeltrichtlinie**
- **Zu viele Flughäfen werden reguliert.**

Regulierung deutscher Flughäfen:

Unabhängige Regulierungsinstanz (UR):

- **Relationsspezifische Investitionen müssen vor Opportunismus geschützt werden (Wolf, 2003).**
- **Regulatory Capture. OECD Prinzipien guter Regulierung.**
- ***„Bedingt durch die Auftragsverwaltung hat Deutschland acht unabhängige Genehmigungs-behörden“…„Da die Länder zugleich auch an den Betreibergesellschaften vieler Flughäfen in Deutschland beteiligt sind, können Interessenkonflikte darüber hinaus nicht vollständig ausgeschlossen werden.“*** **Politische Schizophrenie!**
- **UR notwendig für BVD, Flugsicherung und Planung!**

II.1. Regulation of European Airports in 2016



Independent regulator (all with user consultation)

User consultation without independent regulator

- Improved consultation
- Independent regulator in
  - Hungary (2011)
  - Switzerland (2012)
  - Portugal (2015)
  - France (2016/7)
  - Italy ?
- Regulatory capture is still an issue in Spain, Germany,…

* User consultation at Malta International Airport

Regulierung deutscher Flughäfen:

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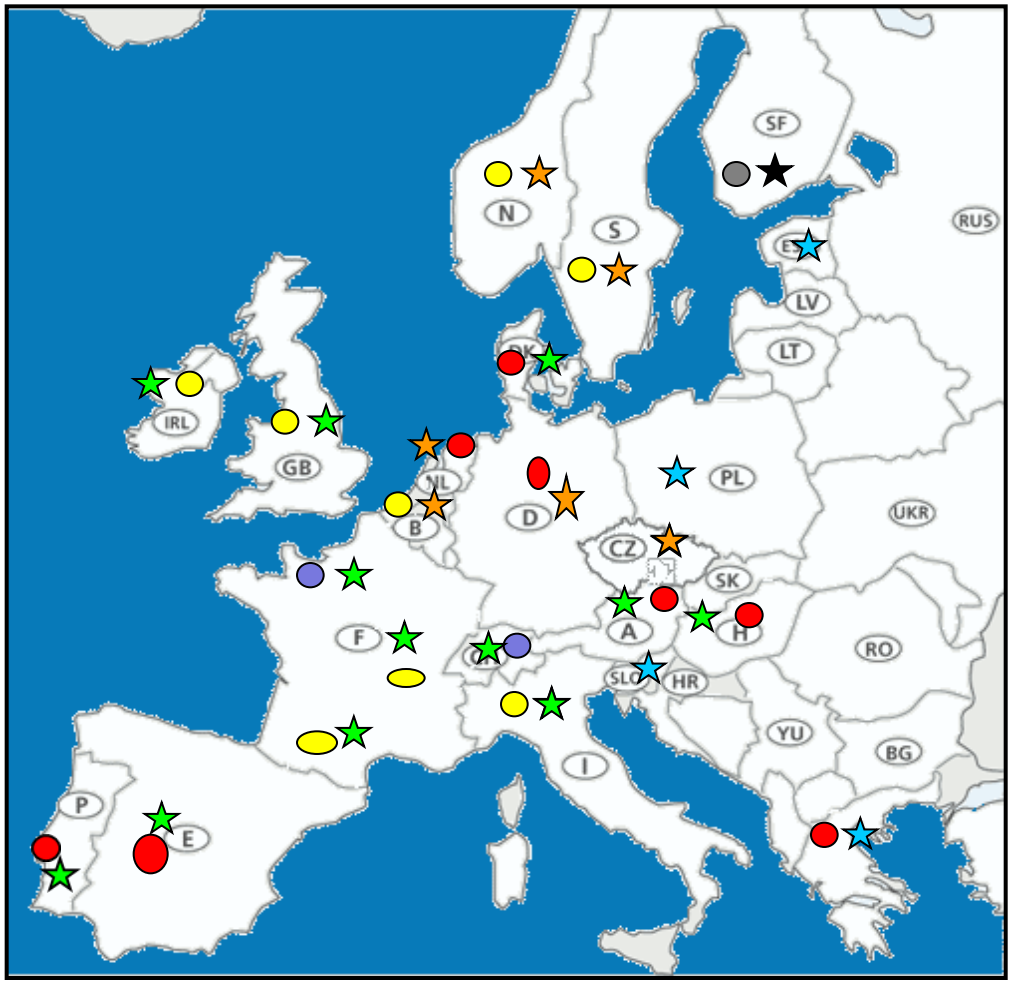
Anreizregulierung:

- **Dual till**
- **X-Factor über Benchmarking**

Deutschland:

- **Von single zu dual till: Positiv, da kommerzielle Aktivitäten nicht mehr besteuert werden.**
- **Von cost-based regulation zu Anreizregulierung (Hamburg, Düsseldorf, Hannover, Frankfurt ?) zurück zu heavy handed cost-based regulation auf dual till = Schlaraffenland für Flughäfen**
- ***„Dabei müssen die Preisobergrenzen so vorgegeben werden, dass die Leistungserbringung nur zu effizienten (minimalen) Kosten möglich ist“.*** **FALSCH!**

II.1 Type of Regulation at European Airports in 2016



* Malta International Airport has a price cap and a dual till system in place.

- Type of price cap
- Charges set by airport
- Cost plus regulation
- No regulation

Single or dual till system

- Single till
- Dual till
- Mixed till
- No till system

Incentive regulation in

- **France**
- **Portugal,**
- **Spain (?)**
- **Switzerland (???)**

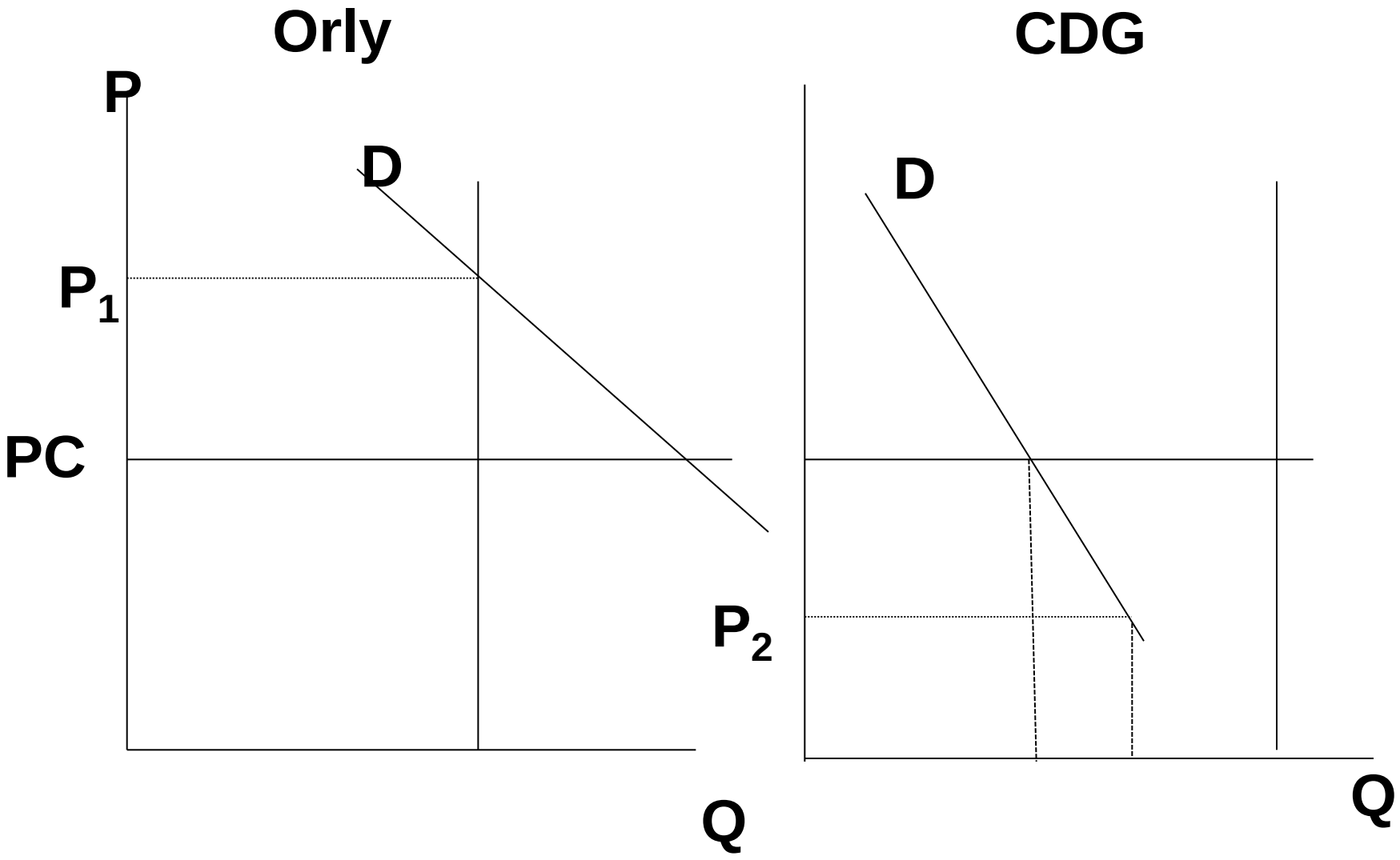
but cost plus in Germany

Source: Gillen& Niemier, 2006

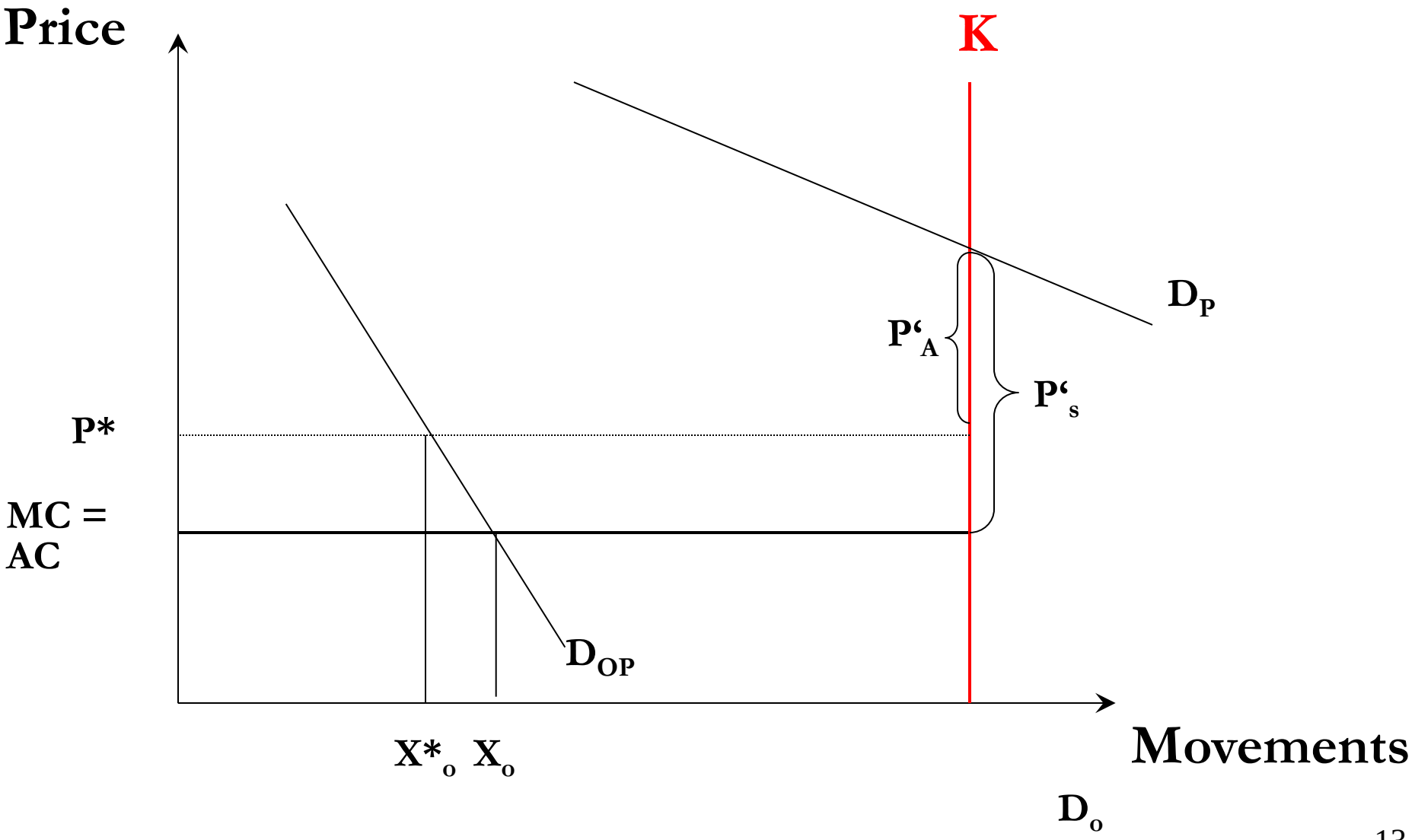
III. 2. Incentives & Performance

- **Warum incentive regulation?**
- **Anreize für Kosteneffizienz! Adler, Forsyth, Müller and Niemeier (2015)**
  - **Price capped European plus Australian airports compared with cost based. Unbalanced data set for 1990 to 2010 of 58 airports**
  - **Moving from low to high powered incentive regulation gradually increases productivity between 6 to 10%**
- **Anreize für allokative Effizienz!**
  - **Freigabe der Entgeltstruktur:**
    - **Peak und Congestion Pricing**
    - **Statt MTOW einfach fixe Gebühr pro Bewegung.**

II.1. Regulation of ADP



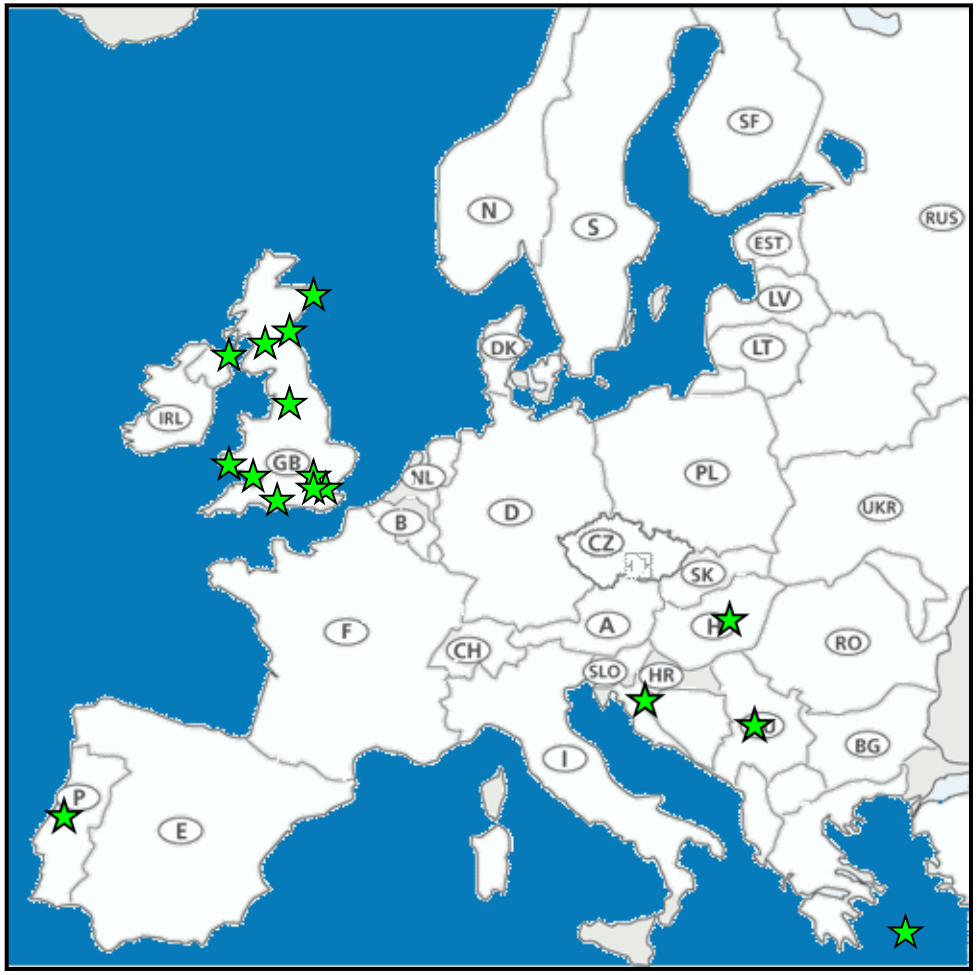
III.2. Regulation: Slots and Rents



III. 2. Incentives & Performance

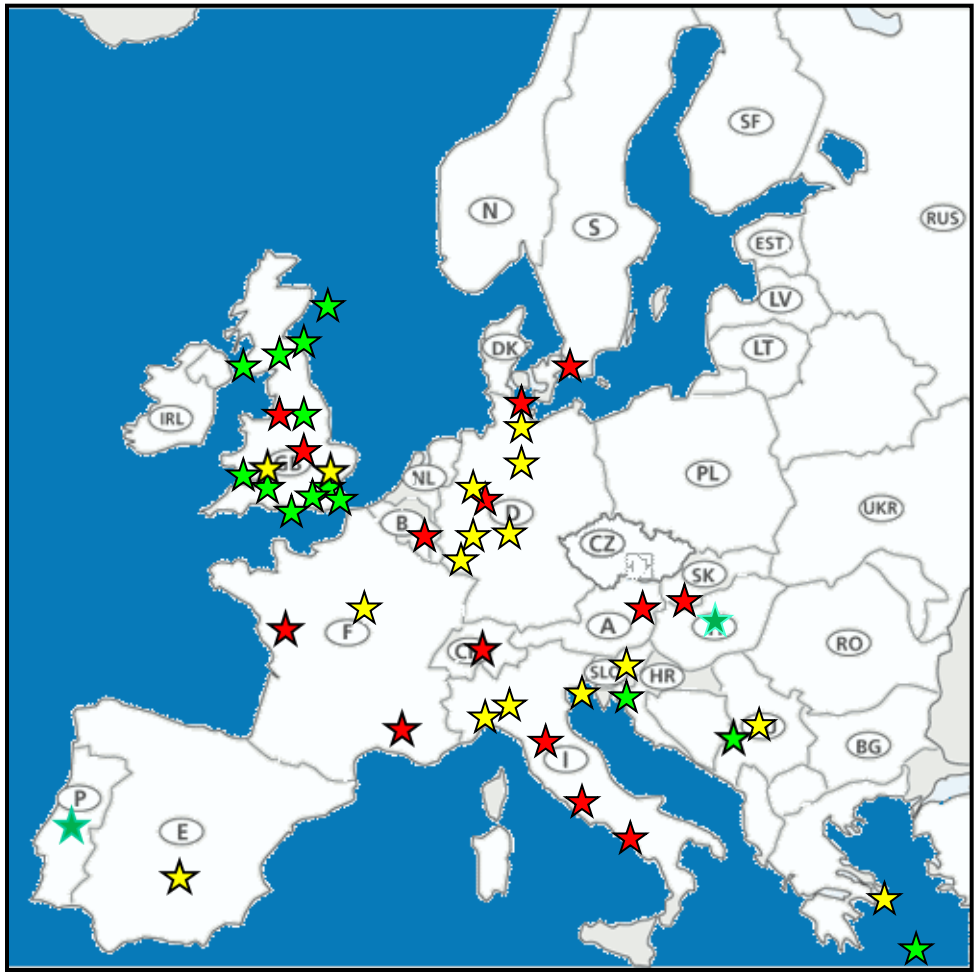
- **Verstärkung des Wettbewerbs**
  - **Slotbörse:**
  - **Open skies: *„Beachtung der Prinzipien der Gegenseitigkeit und Ausgewogenheit“* Protektionismus. Sieg der Level Playing Field - Lobby.**
  - **Privatisierung und Beteiligungsbeschränkungen.**
  - ***Keine Initiative* vom L*VK.***
  - **Teilprivatisierte Flughäfen sind ineffizient im Vergleich zu staatlichen und vollprivatisierten Flughäfen.**

I.2. Fully privatized airports in Europe in 2016



- Fully privatized airports:
  - Larnaka
  - Budapest
  - ANA
  - Zagreb
  - Pristina

I.2. Fully and partially privatized airports in Europe in 2016



- Fully privatized airports
- Partially privatized airports with a majority share
- Partially privatized airports with a minority share

•Malta International Airport has been partially privatized as well (Minority share privatization)

Regulierung deutscher Flughäfen:

Zwischen Reform und Restauration

- Wird das Gutachten der Monopolkommission zu einer Reform führen? Ja, aus Sicht des Konsumenten und der Volkswirtschaft
- LVK und Flughafenpolitik sind ein Spielball der partikularen Interessen:
  - Flughafenregulierung: ADV gewinnt
  - Open skys: BDF gewinnt
- Die wichtigsten Probleme Regulierung und Planung werden nicht gelöst

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White elephants

Kassel Calden:

- **Forecast: 320.000 PAX**
- **In 2015: 65.000 PAX**
- **Klophaus (2006): Kassel Calden creates 704 direct & 1466 indirect/induced jobs.**
- **260 Mio € wasted**


Niemand
hat die Absicht,
einen Flughafen
zu eröffnen!

- **Appendix**

Issues

	Australia	Europe
Airport Competition	Local monopolies, but second Sydney Airport Do hubs compete?	Tough competition (ACI) versus natural monopolies (IATA).
Ownership	Private airports	Mostly state & partially privatized airports
Regulatory Institutions	Independent regulator	Independent regulator in seven countries.
Incentive Regulation	Light handed Regulation	Cost based regulation & heavy handed price caps
Capacity	Abundant capacity except Sydney and Brisbane	Excess demand and excess supply with white elephants
Performance	No vigorous benchmarking	No vigorous benchmarking

I.2. Strength of Competition

- Map airports with persistent market power

Based on Maertens (2012)

I.3. How strong is hub competition?

Bauhaus Luftfahrt
Neue Wege.

Dominance of network carriers

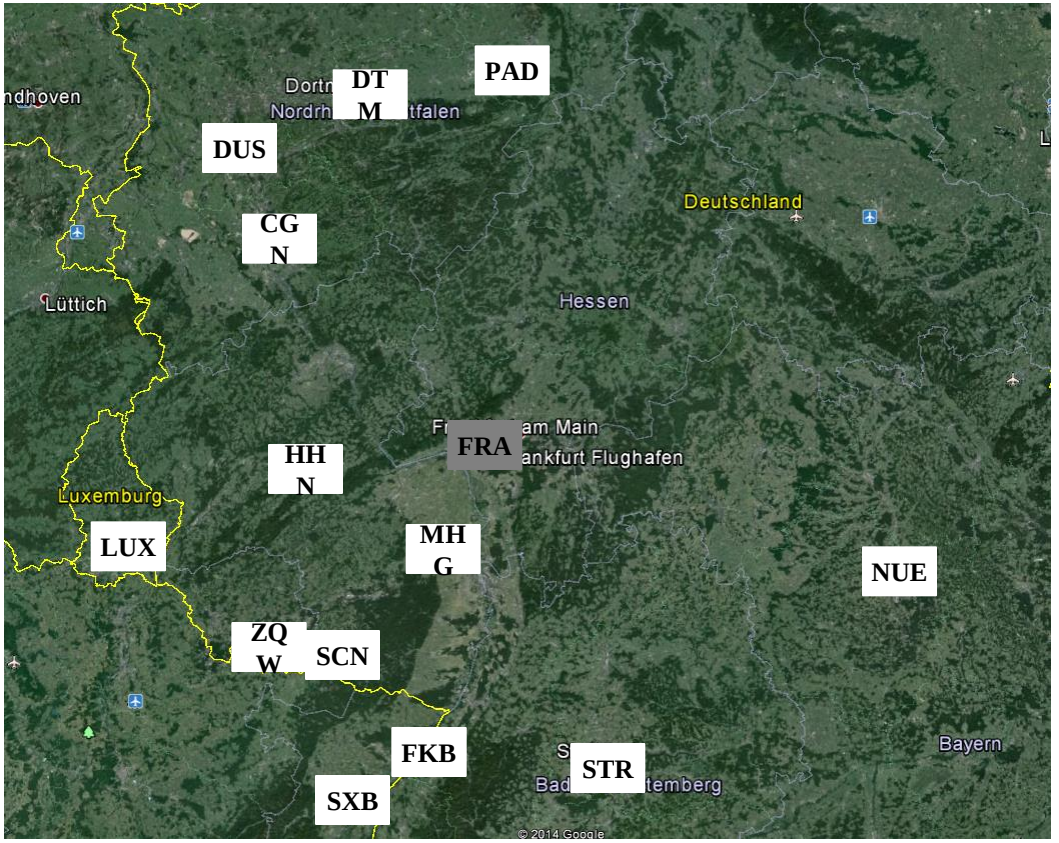
>> *Airport-airline relationship*

- > Hub airport dependency on network carrier operations
- > Airline competition via price and time

Source: Airport Annual Report and Traffic Statistics 2012

Seat capacity at selected airports

- *Identification of all regions served and specific O&D pairs*
- *Supplied seats at each airport*
  - Regional focus
  - Specific O&D market focus
- *Overlap in regions and destinations*
  - Herfindahl Hirschman Index
  - Gini Coefficient



How strong is hub competition?

Bauhaus Luftfahrt
Neue Wege.

>> *Analysis of market concentration for O&D connections*

- > Strong concentration of seat capacity at most European hub airports as hub airports offer higher frequency in comparison to airports within catchment
- > In case of increasing market concentration, a negative effect on route density at the primary airport can be observed, both in terms of overall seats per year as well as average seats per flight offered on a route
- > Primary airports (and respective airlines) have been reacting to the increase in low cost carrier traffic in their catchment by offering more seats on those routes also offered in the catchment

>> *Further work on connecting flights :*

- > Lower concentration, but niche markets like for example Madrid to South America

#	HHI	Gini	HHI	Gini
1	LIS	LIS	1,00	1,00
2	ATH	ATH	0,98	0,99
3	MAD	MAD	0,98	0,99
4	CPH	CPH	0,94	0,95
5	BCN	BCN	0,93	0,93
6	HEL	ARN	0,84	0,84
7	CDG	HEL	0,84	0,84
8	PRG	PRG	0,84	0,83
9	ARN	CDG	0,84	0,81
10	FCO	LHR	0,80	0,78
11	IST	FCO	0,78	0,78
12	VIE	MUC	0,72	0,77
13	OSL	OSL	0,72	0,76
14	MUC	FRA	0,69	0,74
15	LHR	TXL	0,69	0,72
16	TXL	ZRH	0,67	0,71
17	FRA	VIE	0,64	0,70
18	ZRH	MXP	0,62	0,70
19	DUB	DUB	0,60	0,69
20	MXP	IST	0,60	0,69
21	AMS	LGW	0,58	0,62
22	MAN	AMS	0,46	0,61
23	LGW	MAN	0,43	0,56
24	BRU	DUS	0,38	0,50
25	DUS	BRU	0,27	0,50

I.2. Airport competition? Summary

- **CE & ACI are painting a too optimistic picture about the strength of competition, because**
  - **natural barriers to entry are important.**
  - **entry and exit mechanism are not working.**
  - **the role of overlapping catchment areas is overstated.**
  - **competition has not lead to full privatisation except UK.**
  - **competition has not eroded full cost pricing in a crisis**
  - **competition has not lead to demand orientated pricing**
  - **hubs have high market share in their O&D market, but low market shares in major intercontinental transfer markets**
- **Scientific studies & studies for UK & Netherlands support the view that in most EU countries a number of airports have persistent market power.**

II.2. Regulation of Airports

	Excess Supply	Excess Demand	Investment
Price Level	Limited Welfare Loss	Does not matter Slots clears market	Slot rents signal investments
Price structure	Weight based close to Ramsey Pricing	Per movement charge	Slot rents signal investments
Distri-bution	Cost pass through	Rents mainly to airlines	Loss of slot rents
Policy	Limited conflict	Rent seeking	Rent seeking
Price Caps	Incentives for cost efficiency	Pure price caps in theory, but not in practice.	Cost based and contracts
LHR	Incentives for cost efficiency	To be seen	To be seen

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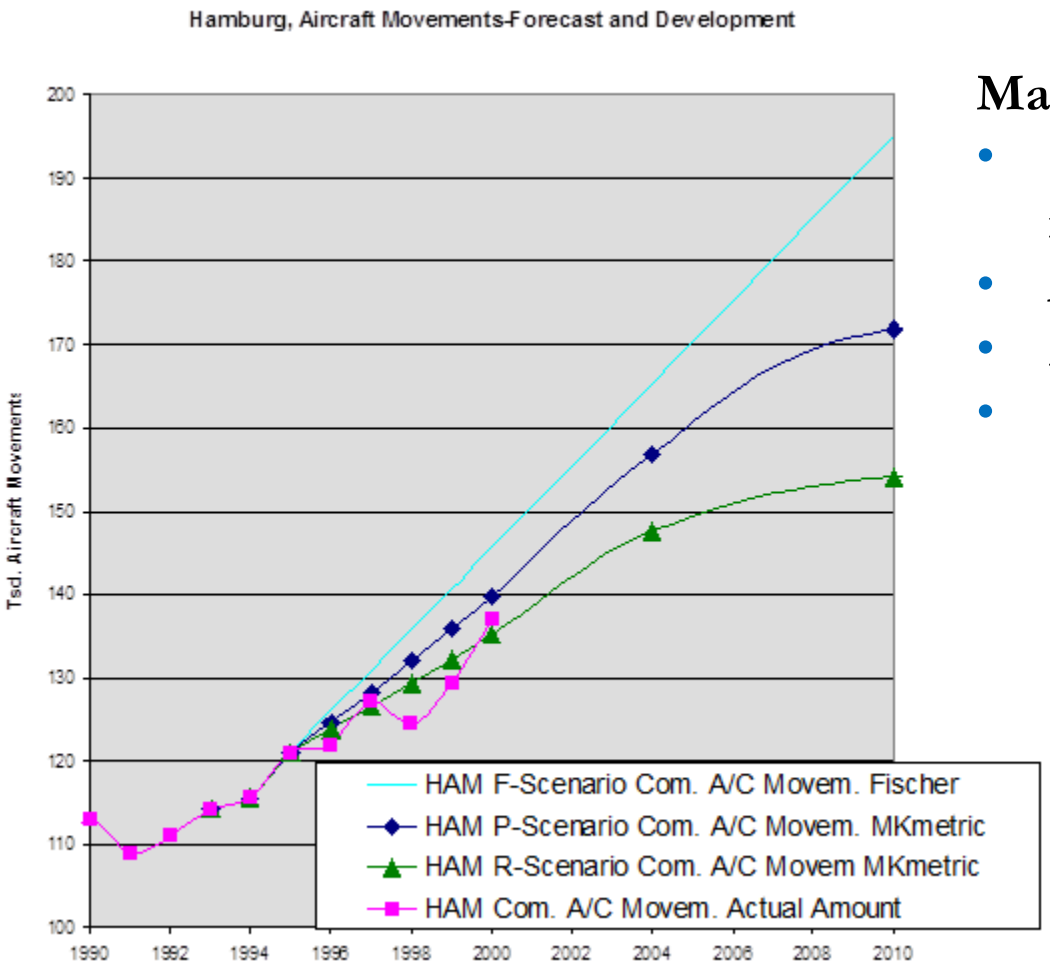
- **Forecasting: Hamburg Airport**



Masterplan (1995)

- **Commercial movements in 2010**
- **Airport: 195.000**
- **MKmetric: 155.000**
- **In 2010: 138.700**

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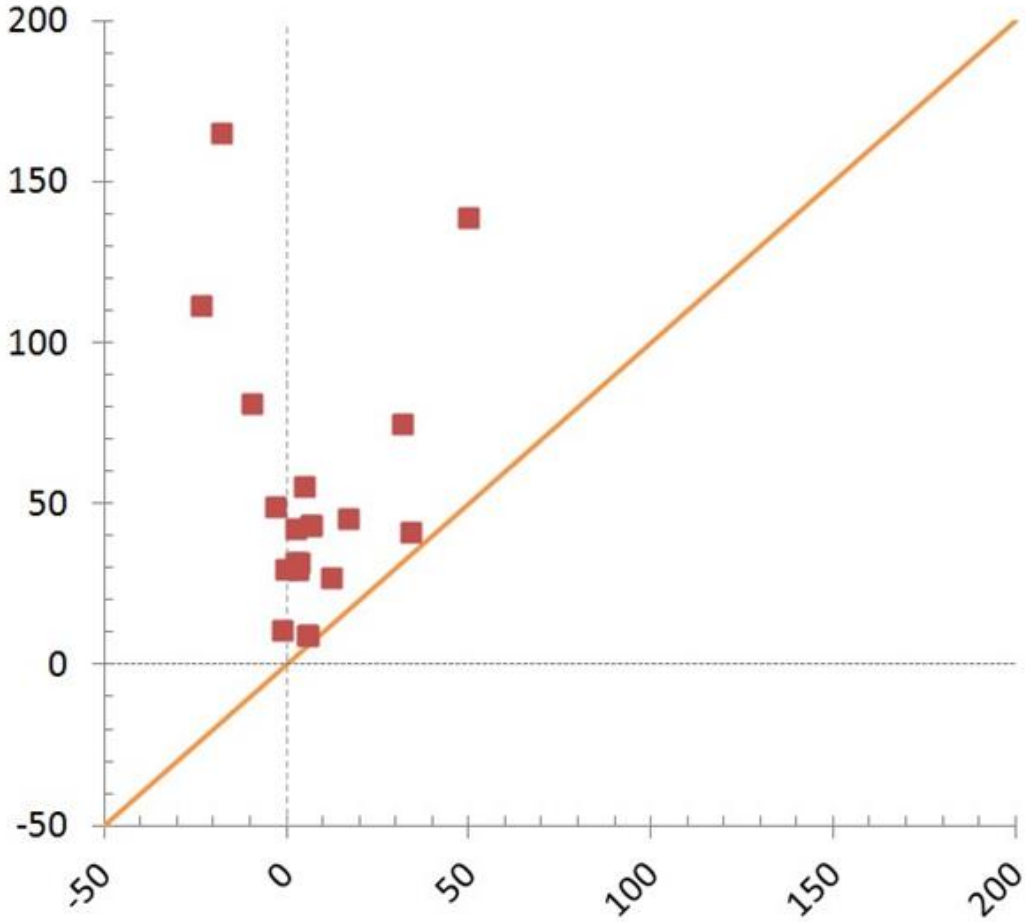
- Forecasting: German airports



Systematic over estimation of total movements

Prediction-Realisation-Diagram:

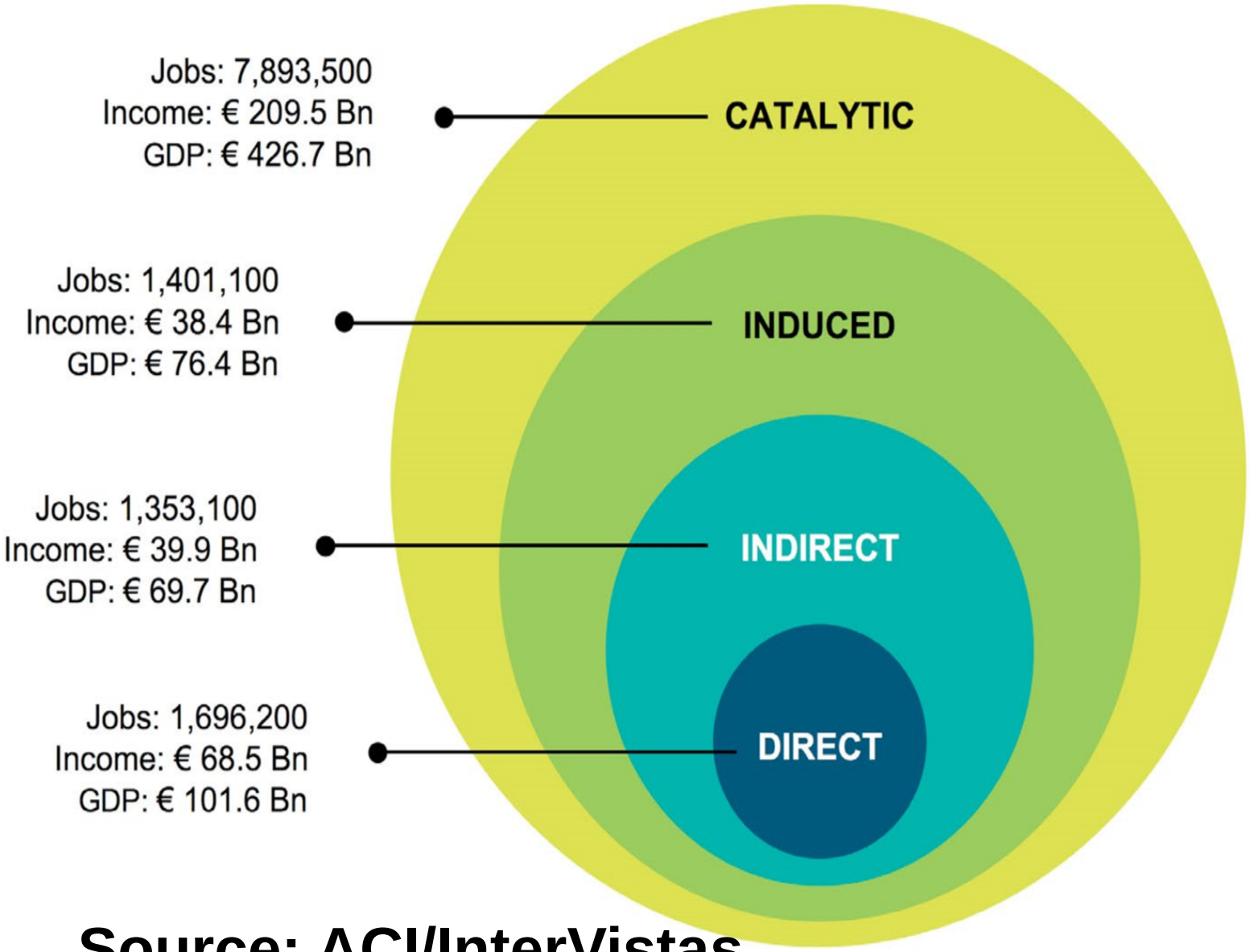
- **Y- axis: forecasted relative change**
- **X- axis: actual relative change**

- **Forecasting: White elephants**

Aeropuerto Central Ciudad Real - Don Quijote

- **Open: 2008**
- **Forecast: 2,5 Mio PAX in 2011**
- **2011: 100000 PAX**
- **Closed: April 2012**
- **Auction (2015): Tzaneen International 10.000€**
- **Waste 1 Billion €**

ACI-Europe: Connectivty -> Catalytic Effects = Wider Economic Benefits = 177 % of impact



Source: ACI/InterVistas

III. 2. Incentives & Performance

- Does incentive regulation increase efficiency compared to cost plus regulation?
- Adler, Forsyth, Müller and Niemeier (2015)
  - Price capped European plus Australian airports compared with cost based. Unbalanced data set for 1990 to 2010 of 58 airports
  - Two-stage Study on Productive Efficiency
    - A non-oriented, variable returns to scale, bound adjusted DEA measure
    - minimizes labour and other operating costs
    - maximizes non-aeronautical revenues
    - given declared runway capacity as a non-discretionary input
    - passengers, air traffic movements and cargo as outputs
    - Short-term managerial efficiency measurement