Price cap Regulation of airports in Continental Europe – an Overview

Prof. Dr. Hans-Martin Niemeier

Strategy and Regulation of Airport Charges at Université Paris Panthéon-Sorbonne, 01 February 2010

I. Criteria for airport regulation

II. How have European airports performed?

III. Government structure of European airports: Privatisation, Competition and Regulation

IV. Price cap regulation in Austria and Germany

V. Conclusions: What are the options for reform?

Agenda

Issues

- UK price cap became standard for many public utilities in Europe and to some extent also for airports
- Reform very often only first step:
  - Break with cost plus regulation achieved, but often complex systems have evolved.
- Research questions:
  1. How well are incentives redesigned?
  2. Only symbolic or real reforms?
  3. How to complete regulatory reform?

II. Airports performance

- Poor cost control particularly at partially privatised airports and vertically integrated airports.
- Allocative efficiency: misdirected pricing!
  - Ample capacity: Inefficient weight based charges
  - Capacity constrained airports
    - No market based slot allocation
    - Arbitrary slot limit
    - Weight based charges discriminate
- Over investment in areas with lack of demand and underinvestment at regions with excess demand.

Capacity Constraints & Slot Allocation

- Level I, II and III airports
  - Level I – no slots
  - Level II – slot facilitated
  - Level III – slot coordinated
- Grandfather rights provision was introduced in the EC legislature as late as 1993
- Heavy reliance in administrative rules: Active secondary trading only in UK!
Mott Mac Donald & EU Commission (2006)

• Effects of secondary trading: Substitution
  - of general aviation by commercial flights
  - of charter and cargo by scheduled flight
  - of small by larger aircraft
  - of short by long haul flights

• Quantitative effects:
  - 7.2% more passengers and 17.1% more revenue passenger kilometres and 51.6 Mio more passengers in 2025.
  - Consumer surplus: + € 31bn at current rates in 2025
  - Producer surplus: + € 1.2 bn in 2025 (upper bound)
### Fully and partially privatized airports in Europe

- **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)

### III. Airport Privatization

- Privatization has not changed the nature of the industry as it has in the UK, but it has made airports in mainland Europe more profit-oriented and cost conscious.
- The typical private airport in Europe is a partially privatized airport which tries to pursue a wider range of objectives (more emphasis on non Aviation).
- The typical public airport is not a public bureau, but a commercialized entity with private management tools for cost control and marketing. Restrained profit making becomes an objective in public airport management.

### III. Airport competition

- **Three Forms:**
  - Hub competition (Schiphol versus ADP)
  - Hub and secondary hub (Fraport versus Munich versus Stuttgart)
  - Primary and secondary airport (Vienna and Bratislava)

- Competition currently not strong enough to make regulation completely redundant.
- Competition could be more intense
  - Tradable slots
  - Open skies

### Regulation of European Airports

- **Independent regulator (all with user consultation)**
- **User consultation without independent regulator**
- **Improved consultation**
- **Lack of independent regulator**
- **Regulatory capture**
- User consultation at Malta International Airport

### Type of Regulation at European Airports

- **Type of price cap**
- **Charges set by airport**
- **Cost plus regulation**
- **No regulation**
- **Single or dual till system**
  - Single till
  - Dual till
  - No till system

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

### III. Airport regulation

- **Institution:** Regulatory capture
  - Improved consultation, but lack of independent regulator
- **Scope:** Too narrow and too wide:
  - Regulation of charges does not include central infrastructure fees for ground handling in some countries.
  - Single till still dominates dual till systems
- **Types of Regulation:**
  - Cost based regulation in majority of countries
  - Some hybrid price caps. Some revenue sharing contracts
- **Incentives:**
  - Gold-plating dominates cost cutting, except at fully private airports
  - No (strong) incentives for peak and congestion pricing
  - Airport expansion becomes a political question
IV. PC in Austria & Germany

- Information asymmetry.
  - Regulator does not know demand, costs functions, but airport does.
  - Airport does not know how the regulator behaves

- Tasks of Regulation
  - More than reducing the level of prices, because this will increase excess demand at busy airports.
  - Additional problem of rationing demand efficiently and setting incentives for investment. Hence
    - structure of charges
    - allocation mechanism and
    - incentives for investment

- How well do the price caps in Austria, France and Germany perform?

IV. Case studies: Austria

- Privatisation:
  - Vienna: In three steps 1992, 1995 and 2001 by IPO. Shares: 20% Federal State Lower Austria, 20% City of Vienna, 10% Foundation of Airport Vienna employees, and 50% free float.
  - Regional airports Graz, Innsbruck, Salzburg, Linz and Klagenfurt are corporatised and owned by city, federal states and republic of Austria.

- Competition
  - Vienna versus Bratislava
  - Vienna versus Munic

- Capacity, Investment and Pricing
  - Vienna partially slot coordinated and peak problems. Expanding capacity
  - Weight based charging

IV. Case studies: Austria

- Method of regulation
  - No clear status: Charges should be regulate so that airports *shall be economically feasible*
  - Sliding scale for Vienna and cost plus for other airport with Transport ministry as moderator
  - Initiated in 1998 by Austrian Airlines (AUA). AUA was discontent with the distribution of profits, sought to benefit from the increasing traffic volume and decreasing average cost of airports.
  - Level of charges has always been high. See next table.
  - Vienna among the most expensive airports of the world.
  - Independent regulator in 2001 "Austro control"
  - Scope: Dual till

- How well do the price caps in Austria, France and Germany perform?

Comparison of German and Austrian Real Revenues per Workload Unit

IV. Case studies: Austria

- Method of regulation: Sliding scale
  - Formula is simple, contains traffic growth with a coefficient of 35%, Inflation coefficient and an extra increase of 0.5 percent
  - $L = -0.35T + I + 0.5\%$
  - $L$ = max increase charges level, $T$ = traffic growth, $I$ = inflation
  - In the case of a negative traffic growth the formula is simply:
    - $I + 0.5$ (addend at VIE as above)
  - 0.25% is addend at Vienna International Airport
IV. Case studies: Austria

- Assessment for Austria
  - Limits to stability of profit sharing
  - The initial period with the contract being valid from the beginning of 2001 until the end of 2005, was followed by a three year period from 2006 to 2008.
  - The last contract could only be extended to the end of the year 2009
  - Like German sliding scales no strong incentives for cost and allocative efficiency

Independence: Federal states with significant stakes in large German airports, while they act as regulators

Cost efficiency: Regulatory power is delegated to federal state level; today, 15 different aviation authorities exist

- German law maker has delegated regulatory power to federal states
- Today, 15 different regional aviation authorities exist
  - Low degree of experience sharing
  - High cost of providing expertise in all states
  - Regional institutions deal with airport charges infrequently (about 1 week per year) – no day-by-day experience

In practice, regulators, airports and airlines employ two different regulatory regimes

- Approval system as suggested by the law
  - Process designed by regulators as “mediation” among parties rather than an “objective examination”

- Private contracts between users and airports replace § 43a regulation
  - Contracts run for 4-5 years, based on a negotiated formula
  - Council of users, regulator and airport monitors charges together

IV. Case studies: Germany

- Partial Privatisation: Only minority share for private stakeholders
- Competition
  - Low market power for airports like Bremen, Hannover, Dortmund, Leipzig
  - Strong market power for Berlin, Frankfurt, Hamburg, Munich, Stuttgart,
- Capacity, Investment and Pricing
  - Excess demand at Düsseldorf, Frankfurt and peak problems in Munich, Tegel and Stuttgart.
  - Expanding capacity at Frankfurt and Munich
  - Weight based charging
- Failure to reform regulation

Cost cap with sliding scale for Hamburg is working and parties rather than an “objective examination” of users, regulator and airport as suggested by the law

- High cost of providing expertise in all states
- Regional institutions deal with airport charges infrequently (about 1 week per year) – no day-by-day experience

- Price cap with sliding scale for Hamburg is working and accepted by all stakeholders, but never copied.
- Sliding scale agreements break with the tradition of low powered cost plus regulation, but stabilize revenues at a high level.
- Prices move in the opposite direction of demand shifts. This can only be efficient if short run marginal costs are decreasing. Doubtful at busy airports.
- Sliding scale agreements could not be extended in case of capacity expansion and crisis
V. Conclusions

- How well do the price caps in Austria and Germany perform?
  - German airports lack an independent regulator. Independent Austrian regulator lacks well defined statute.
  - Privatisation without regulatory reform.
  - Price cap sets incentives towards cost efficiency but these incentives depend behaviour of the partial privatised firm.
  - Revenue sharing agreements with sliding scale are not efficient and not even stable.
  - Although busy airports are slot controlled price structure has not been adjusted. It discriminates large aircrafts and leads to underutilisation of given capacity.
- Political failure to design a coherent system of privatization, regulation and competition

Thank you very much!