The impact of secondary slot trading at Amsterdam Airport Schiphol

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- **To explore the potential that**
  - **slot mobility**
  - **downstream competition**
  - **efficient use of existing capacity**

  will be met at Amsterdam Airport if slot trading is introduced by the EC, taking into account the lessons at other congested airports in the US and UK.

- **Only a few findings are highlighted here. See for more details**

  J.G. de wit & G. Burghouwt: The impact of secondary slot trading at Amsterdam Airport Schiphol, SEO Amsterdam 2006

the current EU slot allocation system: optimal use of capacity AND/OR downstream competition

- ***Grandfather rights*** **deny newcomers the opportunity to enter the market and compete with major carriers**
  - **Competitive threat of small new entrants seems to be limited**
- ***Use-it-or-lose-it rule:*** **incentive to hold slots, even if sub optimally used: slot sitting or baby sitting by partner airline**
- ***The new entrant rule*** **-50% of the pool slots- believed to be of little value after slot retimings by the incumbents**

The US choice between downstream competition and optimal use of capacity: Air 21

- Choice to stimulate downstream competition of new entrants at HD airports
- New category of “Air 21 slots” exempted from the High Density Rule
- To encourage services to small communities and new entrant services

- Result: chaos at Chicago O’Hare and LaGuardia,
- de-hubbing started at ORD
- how to explain the de-hubbing policy at other hubs?

Impact of slot trading on competition

- **Concerns about market concentration**
  - **Dominant hub carrier derives network economies from new destinations (connectivity externalities beneficial to society)**
    - Hub dominance versus route dominance; multi-airport system and inter-hub competition
    - 2nd tier carriers provide more effective competition: Virgin-BA
  - **Dominant carrier can try to obtain more slots to limit downstream rivalry**
  - **Dominant carriers may pursue discriminatory practices in selling slots**
    - Depending on the design of the trading mechanism

Impact of secondary slot trading on slot mobility

- **slot mobility is only a symptom, not an end in itself**
- **slot mobility is expected to increase if airlines are confronted with the opportunity costs of their slots**
- **Different levels of mobility expected:**
  - **NERA (2004): 5-10% each season**
  - **Mott McDonald (2006): almost 6% of the weekly slots at LHR have been trade in the period 2001-2006; some of them have been trade several times.**

Impact of slot trading on the use of airport capacity

- Traded slots increasingly reflect the willingness to pay of airlines
  - Increased use of larger aircraft
  - Increased number of long-haul routes
  - Better capacity utilisation through reallocation from peak to off-peak times

- Is Heathrow a good example for real hubs in Europe?
  - Additional long haul flights require extra feeders with small aircraft in the high valued peak time periods (cf. KLM needs an average of 75% transfer to fill the long haul aircraft!)
  - Opportunity costs of extra slots versus additional network economies
- A more efficient use of airport capacity is not that likely as at LHR (being a stronger O-D than hub airport)

The Schiphol case

- **The environmentally based declared capacity of Schiphol did not restrict airline slots demand until 2006**
- **2006-2007 shows a growth of both pending and non-historical slots**
- **In the coming seasons Schiphol will be packed to the very roof with historical rights**
- **Slot requests will be refused especially for the morning and evening peaks as well as early morning and night period**

- **Slot trading may contribute to more slot mobility: revealed opportunity costs stimulate a more selective use of the peaks BUT……**

What about uncertainty of future capacity at AMS?

- **Schiphol's declared capacity depends on environmental and not on operational constraints**
- **A new traffic mix used in the noise contour calculations can result in another 10,000 slots**
- **Opportunities for a multi-airport system of Schiphol and one or two other airports may result in a reallocation of traffic from Schiphol to other regional airports**
- **The change from a 2+1 runway system into a 2+2 system during the peaks will result in changing slot values at different times of the day**
- **On the longer run the declared capacity may be affected by the construction of a sixth runway**

Slot trading and uncertainty about excess demand: some questions

- Since declared capacity at AMS is not a hard constraint at all, substantial uncertainty has to be absorbed in the trading behaviour of selling and buying airlines
- This may hinder slot mobility and efficient use of capacity and reduce slot prices
- Will KLM and Skyteam partners become potential buyers to extend their hub operations at AMS by adding long haul ICA operations as well as short haul feeder operations under these circumstances and thereby generate extra hub premiums?
- Or are we simply opening the door to airlines with deep pockets like Emirates and Etihad?
- Should we worry about more concentration and less competition at Schiphol or do we have to consider the total direct and indirect competition within a Dutch multi-airport system?

Is slot trading the right instrument for an environmentally constrained airport?

- Capacity is a more complex concept in this case
- Annual declared capacity can be extended by improving the fleet mix according to noise characteristics.
- A bonus-malus differentiation of landing charges can be applied to create an optimal declared capacity
- As long as too much uncertainty will dominate the value of the slots, some local rules in the existing slot allocation system should be introduced
  - Priority rules on mainport value (see paper Burghouwt)
  - And possibly priority rules on noise characteristics for same categories of traffic

Final observations

- A 'one size fits all' approach for new slot trading rules in the EU will ignore the typical differences in congestion among the various airports involved
  - Hub versus non-hub: the UK airlines' attitude versus the continental airlines
  - Operational versus environmental constraints
- This is a plea for maximum discretionary power of individual Member states in applying flexible rules to cope with airport congestion
- Optimal use of airport capacity by slot trading may create extra network value at a hub but that comes at a cost of less direct competition

Thank you for your attention

- **Comments?**
- **Or even more questions?**