Funding of Aviation Infrastructure

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Motivation

- Concerns about costs of aviation infrastructure
- Authority to collect AATF taxes expires 9/30/07
- Introduction of new taxes
  - 13 countries to impose new taxes to fight global disease and promote U.N. Millennium Development Goals

Objectives
- Quantify U.S. and EU ticket taxes and fees
- Estimate the distribution of the tax burden
- Quantify the total share of airline costs which support air transportation and security infrastructure
Battle of the user groups

- **ATA**
  - Fair, equitable, and simple user charges
  - Link system use with system costs
  - Base charges on departures and time in system

- **User fees equate to bad government**
- **Airlines drive cost**
- **ATC system is built for the airlines’ use**
Ticket Tax Project
## U.S. ticket taxes and fees

<table>
<thead>
<tr>
<th>Tax/Fee</th>
<th>Symbol</th>
<th>Rate</th>
<th>Recipient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal ticket tax</td>
<td>FTT</td>
<td>7.5%</td>
<td>Airport and Airway Trust Fund</td>
</tr>
<tr>
<td>Federal segment tax</td>
<td>FST</td>
<td>$3.30 per segment</td>
<td>Collecting airport</td>
</tr>
<tr>
<td>Passenger facility charge</td>
<td>PFC</td>
<td>$3 or $4.50 per enpl.</td>
<td></td>
</tr>
<tr>
<td>Federal security service fee</td>
<td>FSSF</td>
<td>$2.50 per enpl.</td>
<td>TSA</td>
</tr>
</tbody>
</table>

Notes:
- Rates effective 2006
- Only includes domestic taxes and fees added directly to the price of tickets
- PFC and FSSF collection limited to first 2 enplanements per one-way trip
- Rural airports exempt from some taxes
- Special FTT & FST rules exist for Alaska and Hawaii
- FSSF temporarily suspended from June 1 to September 30, 2003

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Definitions

- Total taxes and fees (U.S. example):
  \[ TTF = FTT + FST + FSSF + PFC \]

- Effective tax rate:
  \[ ETR = \frac{E(TTF)}{E(BF)} \times 100\% \]
## Summary statistics

<table>
<thead>
<tr>
<th>BF</th>
<th>TTF</th>
<th>FTT</th>
<th>FST</th>
<th>PFC</th>
<th>FSSF</th>
<th>ETR</th>
</tr>
</thead>
<tbody>
<tr>
<td>$287.12</td>
<td>$47.01</td>
<td>$21.53</td>
<td>$8.64</td>
<td>$10.20</td>
<td>$6.64</td>
<td>16.4%</td>
</tr>
</tbody>
</table>

**Notes:**
- Results for 2005
- Expressed as round-trip equivalents
- Average number of segments in each direction: 1.35

**Funding of Aviation Infrastructure**
U.S. taxes and fees: 1993-2005

- 188 million records, representing 436 million passengers
- Average total taxes and fees: little change
  - Base fare has decreased by $130 or 31%
  - Tax rate has increased by 5 percentage points
EU challenges

- No database equivalent to U.S. DB1B
- Limited GDS sample for EU-15:
  - ~3.5 million tickets intra-EU tickets collected January 13, 2004-February 15, 2005
  - Does not include LCCs or charter carriers
- Does not cover air navigation service fees
- Results are not directly comparable to U.S.
Funding of Aviation Infrastructure
YQ/YR (= “airline own use only”) make up more than 20% of apparent taxes and fees

A non-trivial amount of non-EU taxes are assessed on intra-EU tickets
<table>
<thead>
<tr>
<th>Case</th>
<th>BF</th>
<th>TTF</th>
<th>BF+TTF</th>
<th>ETR</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU-15 Total</td>
<td>283.40</td>
<td>32.11</td>
<td>315.51</td>
<td>11.3%</td>
</tr>
<tr>
<td>U.S. Total</td>
<td>287.12</td>
<td>47.01</td>
<td>334.13</td>
<td>16.4%</td>
</tr>
</tbody>
</table>

- EU-15 results based on 17-day sample of ~3.5 million tickets
- YQYR included in base fare (and not in total taxes and fees)
- When including YQ/YR in fees, apparent EU-15 ETR is >16%
- YQYR increased from $8.50 in Jan. 2004 to $19.50 in Feb. 2005
- Including ANS charges may increase EU ETR to ~19% (based on Lufthansa/SAS data)
"Airline use only" fees in EU

\[ y = 0.029x + 7.2466 \]

\[ R^2 = 0.87 \]

Date (1 = Jan. 1, 2004)

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ETR by country of origin

- Luxembourg
- Spain
- Italy
- Portugal
- France
- Germany
- Austria
- Belgium
- Denmark
- Netherlands
- Sweden
- Finland
- Greece
- Ireland
- U.K.

EU-15 average

Funding of Aviation Infrastructure
Cost of Infrastructure Project
Goals and methodology

- Quantify all infrastructure and security related air transportation costs
- Developed survey instrument for ATA to distribute to members
- Received survey results for 10 carriers
- Goal is to have estimates for all carriers, by scaling up survey results
- Includes all taxes (most are off-budget)
## Additional U.S. airline taxes

<table>
<thead>
<tr>
<th>Tax</th>
<th>Rate</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>International arrival tax</td>
<td>$14.50</td>
<td>Per arriving international passenger</td>
</tr>
<tr>
<td>International departure tax</td>
<td>$14.50</td>
<td>Per departing international passenger</td>
</tr>
<tr>
<td>Immigration user fee</td>
<td>$7.00</td>
<td>Per arriving international passenger</td>
</tr>
<tr>
<td>Customs user fee</td>
<td>$5.00</td>
<td>Per arriving international passenger</td>
</tr>
<tr>
<td>Animal and plant health inspection service</td>
<td>$5.00</td>
<td>Per arriving international passenger</td>
</tr>
<tr>
<td>passenger fee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Animal and plant health inspection service</td>
<td>$70.50</td>
<td>Per arriving international aircraft</td>
</tr>
<tr>
<td>aircraft fee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jet fuel tax (commercial use)</td>
<td>4.3¢</td>
<td>Per gallon</td>
</tr>
<tr>
<td>Leaking underground storage tank fuel tax</td>
<td>0.1¢</td>
<td>Per gallon</td>
</tr>
<tr>
<td>Air carrier security fee</td>
<td>Confidential</td>
<td>Per carrier (based on CY 2000 screening costs)</td>
</tr>
<tr>
<td>Cargo waybill tax</td>
<td>6.25%</td>
<td>Domestic freight waybill</td>
</tr>
<tr>
<td>Frequent flyer tax</td>
<td>7.5%</td>
<td>Sale of the right to award frequent flyer miles to third parties</td>
</tr>
</tbody>
</table>

Funding of Aviation Infrastructure
Changing conventional wisdom

Funding of Aviation Infrastructure

Fuel, 25.5%
Labor, 23.8%
Professional expenses, 7.8%
Transport related, 14.7%
Aircraft ownership, 6.9%
Other expenses, 21.2%
Other expenses, ???%
Survey results and follow-up

- Infrastructure costs are ~16% (10 carriers)
- Methods for estimating costs for **all** carriers
  - Option 1: Scale survey results
    
    |             | Ops  | Pax  | Cargo |
    |-------------|------|------|-------|
    | Domestic    | 33.8%| 55.7%| 37.9% |
    | International| 34.6%| 63.0%| 36.6% |
  - Option 2: Use independent data sources  
    (found for 85% of infrastructure costs)
Questions?