Bilateral Services Trade Data

Contribution to GTAP-7 database,

Nico van Leeuwen

Arjan Lejour
History

- Services markets in Europe, new policies
- GTAP <=6, bilateral data constructed
- New: bilateral services trade from OECD/Eurostat by (some) sector(s)
- Last year presented our modifications of GTAP 6
- Focus now: contribution to GTAP7

Feedback
  - meeting last year
  - services committee.
In GTAP

- Bilateral trade flows not based on observations
- 11 sectors for non-margin flows
- Export of margins in transport sectors
- All GTAP countries / regions
- IMF balance of payments statistics
- RAS procedure to rebalance exports and imports
New OECD database

- Bilateral flows from 28 reporters and 55 partner countries
  - mix Iceland, Belgium-Luxembourg combined
- Covers 78% cross-border exports and 74% imports, 2001
- Both for exports and imports
- Four sectors publicly available
- Plus break out of commercial services into 8 sectors
- Using IMF with information from country experts and EUROSTAT
## OECD – GTAP concordance

<table>
<thead>
<tr>
<th>OECD</th>
<th>GTAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td>WTP, ATP and OTP</td>
</tr>
<tr>
<td>Travel</td>
<td></td>
</tr>
<tr>
<td>*Communication</td>
<td>CMN</td>
</tr>
<tr>
<td>*Construction</td>
<td>CNS</td>
</tr>
<tr>
<td>*Insurance</td>
<td>ISR</td>
</tr>
<tr>
<td>*Financial services</td>
<td>OFI</td>
</tr>
<tr>
<td>*Computer.+ information</td>
<td>part OBS</td>
</tr>
<tr>
<td>*Royalties and licenses</td>
<td></td>
</tr>
<tr>
<td>*Other business</td>
<td>TRD and OBS</td>
</tr>
<tr>
<td>*Personal, cultural + recre.</td>
<td>ROS</td>
</tr>
<tr>
<td>Government, nec.</td>
<td>OGS</td>
</tr>
</tbody>
</table>
Data procedure

- Gathering data reported exports and imports
- Determine most reliable reporter for two observations per flow: Gehlhar method
  - reliability indices by sector
  - used also regression method
- If one observation per flow: that observation
- If no observation for a flow: estimation
- If observation < zero: then zero

Result: full matrix by sector (24 countries)
  - not turkey, Mexico New Zealand, Korea
Decisions to be taken

- Base year 2003 or 2004
- Number of sectors
  - include non published ones.
- Number of countries
  - OECD 24 by 24, complete matrix (inc. estimations)
  - Other OECD and partner countries (55 minus 24) only available data
- CPB responsible for delivering data
- GTAP Center integrates these data in data base
- When?
Adjustments: regression

- example: other commercial services
- FRA (=reporter) -- > GBR (partner) = 4.4
- FRA (=partner) -- > GBR (reporter) = 3.1

\[
\ln(imp_{ij}) = \alpha + \beta \ln(exp_{ij}) + \sum_r \gamma_r D_r^O + \sum_r \delta_r D_r^D + \varepsilon_{ij}
\]

- Under- or over reporting?
- Ranking based on dummy coefficients
- Rank FRA export reporter = 25
- Rank GBR import reporter = 19
- Flow from FRA to GBR = 3.1