Open Skies: An Economics Assessment of the US-EU Open Aviation Area Agreement

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Outline

- Background on Open Skies Agreement
- Model description/Data Issues
- Results

US-EU Open Skies Agreement

- Implemented on March 31, 2008
- Main content of agreement:
  - Removed restrictions on air fares
  - Allows air carriers to fly to any point in partner country
  - 5th Freedom rights
  - Allows cooperation in marketing and code sharing arrangements
- Replaces a existing series of 22 bilateral agreements

Previous Research

- Brattle Group (2002)
  - Air fare reductions of 18-28%
  - Transatlantic passenger volume increase 9-24%
  - Consumer surplus: €2.7 - €2.8 billion annually
- Booz Allen Hamilton (2007)
  - Passenger volume increase up to 7.6 million per year
  - Consumer surplus: €6.4 - €12.0 billion over 5 years
- Mayor and Tol (2007)
  - Global increase in CO_2 emissions: up to 2.8%

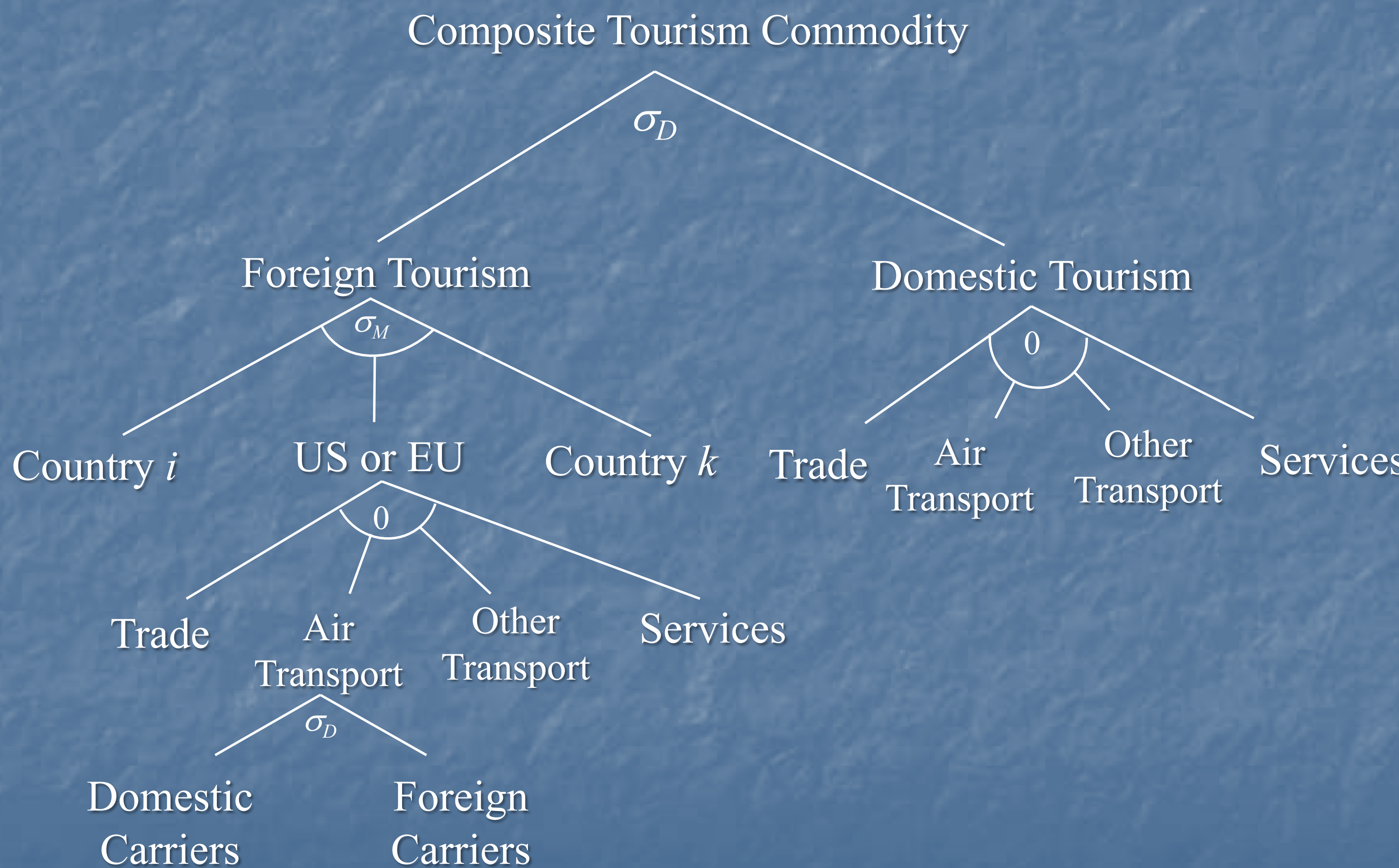
Model Overview

- GE vs. PE framework
  - Impact on travel and tourism-related sectors
  - Impacts on global CO_2 emissions
  - Impacts on other countries
- Modified GTAP-E model/data
  - Introduce "tourism" sector
  - Introduce imperfect competition and scale economies
  - Disaggregate air transportation sector

Regions/Sectors

- 9 regions:
  - US, EU
- 13 sector/commodity
  - 5 tourism-related
  - 5 energy
  - Food
  - Manufacturing
  - Other services

Tourism Preference Structure



Tourism Expenditure

- Problem: Tourism is only fraction of sector expenditures
- Use secondary data to allocate?
  - Availability varies across countries
- Domestic tourism
  - US (BEA): 3.6% of GDP
  - EU average of U.K. (5.6%) and Netherland s (2.1%)
  - Other regions

Foreign Tourism Expenditure

- Must be compatible with underlying GTAP trade data
  - All imports purchased by consumers of tourism-related sectors
- Problems?
  - Underestimate foreign tourism expenditure?
  - Problems with balance of "tourism trade?"

Imperfect Competition – Key Assumptions

- Bertrand
- Zero economic profits (firm entry/exit)
- Firm cost functions are homothetic
- Constant marginal cost
- Symmetric firms
- Firms do not price discriminate between markets

Disaggregating Air Transport Sector

- Open Skies agreement only affect flights over North Atlantic
  - Split into North Atlantic (*atp_na)* and other air transport (*atp_o*)
- Based on North Atlantic air revenue data from ICAO
  - 11.8% for U.S. carriers
  - 22.6% for EU carriers
- Allocate sales (domestic use, exports, and freight)
- Allocate costs
  - Total sales = total costs