THE OECD ANALYTICAL AMNE DATABASE

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The OECD analytical AMNE database: motivation

- Many claims about the important role of MNEs in the global economy
  ... but a lack of empirical evidence
- Data are available only for a subset of OECD economies
  ... and often incomplete
- In the case of trade, similar issues (particularly for trade in services) but still data are produced
  – Balanced analytical datasets (e.g. OECD/WTO on trade in services)
  – TiVA database (with an analysis of trade in value-added terms)
- Why not the same approach for AMNE data?
The OECD analytical AMNE database: overview (1)

• Starting point: official AMNE data collected by OECD and national statistical offices
  – FDI information used to identify sectors with no foreign affiliates
• Framework for consistency: WIOD database (based on official national accounts)
  – Output, value-added and trade by country and industry
  – Will be replaced by TiVA Inter-Country Input-Output tables in the next update
• Estimation of missing data:
  – Mirror statistics (outward AMNE data)
  – Shares (e.g. missing years)
  – Gravity estimates
  – Optimisation (global balancing)
The OECD analytical AMNE database: overview (2)

- Content:
  - Complete matrices for the output, value-added and exports of foreign affiliates
  - Split input-output tables for domestic-owned and foreign-owned firms
    • Allows an analysis of multinational production in value-added terms
  - Domestic companies are further split between domestic MNEs and non-MNEs for recent years: coverage of all MNE activities (not just affiliates)

- Coverage:
  - 43 countries (as host and parent economies) and a ‘rest of the world’ (full world coverage)
  - 43 industries (ISIC rev. 4)
  - 2000-2014
The OECD analytical AMNE database: methodology

• The methodology is described in: “Multinational enterprises and global value chains: the OECD analytical AMNE database”, OECD Trade Policy Paper No. 211

• How are the data constructed?
  – First stage: Reconciling AMNE data with the ICIO framework
    • Initial output matrix with hard data
    • Estimation of missing values
    • Balanced bilateral output matrix
    • Value-added and exports are estimated using existing data and a shares approach
  – Second stage: Splitting and balancing of the ICIO according to ownership
Policy analysis based on the OECD analytical AMNE database

- “Multinational production and trade in services”, OECD Trade Policy Paper No. 212
The importance of MNEs in the world economy, 2014

Source: Analytical AMNE database
Share of regions in the global output by foreign affiliates (inward and outward), 2014 and 2000

Source: Analytical AMNE database
First world estimates of trade in services according to ‘mode 3’, USD trillion, 2000-2014

Mode 3: exports

Mode 3: domestic sales

Source: Analytical AMNE database
Sourcing structure of foreign affiliates and domestic firms (world total, 2014)

Source: Analytical AMNE database
World exports and output of foreign affiliates in gross and value-added terms, USD trillion, 2014

- **Gross exports**: 15
- **Value added in exports**: 7
- **Output of foreign affiliates**: 8
- **Value added in output of foreign affiliates**: 4

**Cross-border trade**

**Services sector**: 6

**Manufacturing & primary sector**: 15

**Activities of foreign affiliates**

**Services sector**: 4

**Manufacturing & primary sector**: 3

Source: Analytical AMNE database
Next steps

• Get more data from countries
  – On-going efforts at OECD (e.g. eSUT experts group, TEC, etc.)
  – And in national statistical offices (BEA, CBS, Nordic countries, etc.)
• Improve the methodology to estimate the missing information
• Benchmark the data on the new TiVA ICIO (more recent information from national accounts)
• New joint project between DAF, STI and TAD: trade, investment and intangibles
  – Extension to capital (physical and intangible)
  – Tracking income payments, in particular related to intangible assets
• The team

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• Information available at http://www.oecd.org/sti/ind/analytical-amne-database.htm or oe.cd/gvc-mne
  – Methodological paper
  – Analytical papers
  – Policy notes
  – Database... forthcoming