Measuring Trade in Services
Training Module

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Trade in Services Course in Washington, DC, April 2004

Overview

- Which statistical framework do we need to measure international trade in services flows?
- What is the current state and which improvements can we expect?
- What do available statistics show?
- How to improve the collection of data?

Specifics of Trade in Services

Services represent 20% of world trade, however, account for 2/3 of world GDP only

Conventional trade statistics do not cover all international trade in services, because of the

Intangible nature of services
- Many services require the physical proximity of provider and consumer:
  ⇒ GATS therefore distinguishes 4 modes of delivery

The 4 Modes of Supply Under GATS

<table>
<thead>
<tr>
<th>COUNTRY A</th>
<th>COUNTRY B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mode 1: service transactions</td>
<td>Mode 2: service transactions</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Mode 3: service transactions</td>
<td>Mode 4: service transactions</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

COUNTRY A COUNTRY B

Consume from A The consumer goes abroad Service supply Supplier
Consumer from A
Consumer from A
Consumer from A
Consumer from A
Foreign affiliate
Direct investment in country A Company
The 4 Modes of Supply Under GATS

Mode 4: service transactions
- Consumer from A
- Natural person
- Service firm
- Temporary employees
- Natural persons

Mode 4: employment
- Service firm
- Natural person
- Employee sent by firm from B

What is the problem for the statistical framework?

Goods
- "cross-border"
- mode 1: "cross-border"
- mode 2: consumption abroad
- mode 3: commercial presence
- mode 4: movement of natural persons

Services
- mode 1: "cross-border"
- mode 2: consumption abroad
- mode 3: commercial presence
- mode 4: movement of natural persons

response:
- International Merchandise Trade Statistics (IMTS), Rev.2
- Compilers Manual

The Manual on Statistics of International Trade in Services

Guidelines and recommendations on the measurement of trade in services

- Balance of Payments statistics
- Foreign Affiliates Trade in Services statistics
- Annex: Movement of natural persons

Statistics on Resident-Non Resident Trade in Services (BOP)

- Principles of recording BOP transactions
- The Extended Balance of Payments classification
- Statistics by trading partner
- Availability of BOP/EBOPS trade in services statistics
BOP Statistics

BOP summarises transactions of an economy with the rest of the world.

- **Current account**
  - Goods
  - Services
  - Income
  - Current transfers

- **Capital & financial account**
  - 11 components
    - Transportation
    - Travel
    - Communications etc.
  - Of interest to trade negotiators but...

EBOPS

Extended Balance of Payments Services Classification

- **What is it?**
  - product-based classification,
  - consistent with 11 BPM5 services components,
  - more detailed than BPM5 services components,
  - including additional memorandum items.
- **How can it be used in the framework of GATS negotiations?**
  - MSITS provides a table of correspondence between EBOPS / CPC Rev.1 / GATS list of services GNS/W/120.

EBOPS Main Components

**Commercial services:**

1. Transportation
2. Travel
3. -10. Other commercial services

- Communications services
- Construction services
- Insurance services
- Financial services
- Computer and information services
- Royalties and licence fees
- Other business services
- Personal, cultural and recreational services

11. Government services
   (not in GATS)
Structure of Other Services Exports, 2001

- Other business: 52%
- Personal, cultural and recreational: 3%
- Communications: 4%
- Construction: 4%
- Insurance: 4%
- Financial services: 14%
- Royalties and license fees: 12%
- Computer and information: 7%

EBOPS Detailed Components

Breakdown of main components:

1. Transport
   - Sea transport (passenger, freight, other)
   - Air transport (passenger, freight, other)
   - Space, Rail, Road, etc.
2. Travel
   - Business travel
   - Expenditure by seasonal and border workers
   - Other
   - Personal travel
   - Health-related expenditure
   - Education-related expenditure
   - Other
3. Communications services
   - Postal & courier
   - Telecommunication

Allocation of BOP/EBOPS Items to Modes of Supply

As a first step, MSITS proposes a simplified approach:
- Items deemed to be predominantly delivered through one mode

Mode 1
- Transportation (except supporting and auxiliary services to carriers in foreign ports)
- Communications services
- Insurance services
- Financial services
- Royalties and license fees

Mode 2
- Travel (excluding purchases of goods)
- Supporting and auxiliary services to carriers in foreign ports

Mode 3
- Construction services

Mode 4
- Computer and information services
- Other business services
- Personal, cultural and recreational services
Statistics by Trading Partner

MSITS recommends to

- Compile international trade in services statistics on an individual trading partner basis
- At least for:
  - Services as a whole
  - 11 main services components of BPM5/EBOPS
  - Main trading partners
- If possible:
  - At more detailed EBOPS level
  - Common geographical basis for all trade in services data

International Dissemination of BOP/EBOPS Statistics

<table>
<thead>
<tr>
<th>Publication</th>
<th>Country coverage</th>
<th>By type of service</th>
<th>By partner country</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMF Balance of Payments Statistics Database (book and CD-ROM)</td>
<td>IMF members</td>
<td>BPM5 and EBOPS* (provided to IMF on voluntary basis)</td>
<td>No</td>
</tr>
<tr>
<td>Eurostat New Trade Database (on-line and CD-ROM)</td>
<td>EU members, total EU, euro area, EU candidate countries</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>OECD Statistics on International Trade in Services (on-line publication OECD and Eurostat) (book, on-line and CD-ROM)</td>
<td>OECD members</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>OECD Statistics on International Trade in Services (Detailed Tables by Partner Country) (book, on-line and CD-ROM)</td>
<td>OECD members and Hong Kong</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>WITS International Trade Database (book, on-line and CD-ROM)</td>
<td>All countries</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

* From 2003: Joint OECD-Eurostat Trade in Services Classification up to 2002

Foreign Affiliate Trade in Services Statistics (FATS)

Overview

- What do FATS statistics measure?
  - Focus on services measuring Mode 3 (commercial presence)
  - A range of indicators on the activity of foreign affiliates
  - Inward and outward movements
  - Statistics by trading partners

The FDI Universe

FDI: the direct investor makes an international investment to obtain a lasting interest in an enterprise abroad

- Direct investor
  - 10% or more shares, voting power or the equivalent
  - between 10 and 50%
  - more than 50%
- Direct investment enterprise
- Associate/Subsidiary/Branch
- Individuals
- Enterprises
- Associated groups of individuals/enterprises
- Governments...
Firms Covered in FATS

- Ownership criteria
  Majority-owned foreign affiliates (a single foreign investor owns more than 50% of their ordinary shares or voting power):
    \[ \text{Includes} \text{ subsidiaries and branches} \]
    \[ \text{Excludes} \text{ associates} \]
- Types of producers
  Affiliates producing goods, services

Economic Variables for FATS

Most are drawn from SNA 93

Basic FATS variables
(minimum recommended by MSITS)

- Sales (turnover) and/or output
- Employment
- Value added
- Exports and imports of goods and services
- Number of enterprises

Additional FATS variables

- Assets
- Compensation of employees
- Net worth
- Net operating surplus
- Gross fixed capital formation
- Taxes on income
- Research and development expenditures

Geographical Attribution

Foreign-owned affiliates in the compiling country (inward FATS)

- Described
- Statistics on inward FATS
- Operations allocated to the country of
  - Immediate owner
  - Foreign investor

Foreign affiliates of investors of the compiling country (outward FATS)

- Described
- Operations of foreign affiliate
- Foreign affiliate (holding company)
- Resident investor
- Operations allocated to the country of
  - Foreign affiliate
  - UBO
  - Residents
Classification by Activity and by Product

- FATS variables classified as a first priority on an activity basis
- Foreign affiliates classified by their primary activity
- According to ISIC Categories for Foreign Affiliates (ICFA)
- ICFA can be linked with EBOPS (to a limited extent)
- Long-term priority...
  - FATS variables such as sales, imports and exports should also be broken-down by product

Availability of FATS Statistics

<table>
<thead>
<tr>
<th>Country</th>
<th>Inward</th>
<th>Outward</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of employees</td>
<td>Turnover</td>
<td>Value added</td>
</tr>
<tr>
<td>Austria</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Belgium</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Denmark</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Finland</td>
<td>x</td>
<td>x</td>
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<tr>
<td>France</td>
<td>x</td>
<td>x</td>
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<tr>
<td>Germany</td>
<td>x</td>
<td>x</td>
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<tr>
<td>Hungary</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Iceland</td>
<td>x</td>
<td>x</td>
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<tr>
<td>Italy</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Japan</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Netherlands</td>
<td>x</td>
<td>x</td>
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<tr>
<td>Norway</td>
<td>x</td>
<td>x</td>
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<td>Poland</td>
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<td>Portugal</td>
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<tr>
<td>Sweden</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Turkey</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>United States</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

FDI Statistics as an Alternative

State of implementation
- Many countries collect FDI flows, with geographical and activity breakdown (more data for inward than outward)
- Correlation between FDI flows/stocks and sales of foreign affiliates is not perfect

Collection and dissemination
- Eurostat and OECD: FDI inward and outward stock, flows and income (by industry and country)
- UNCTAD: Foreign Direct Investment Database
- National sources: Central banks, statistical offices

Availability of FDI and TNCs statistics

<table>
<thead>
<tr>
<th>Country</th>
<th>FDI Inward</th>
<th>TNCs Inward</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of countries</td>
<td>Activity breakdown</td>
<td>Geographic breakdown</td>
</tr>
<tr>
<td>Austria</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Belgium</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>China</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Colombia</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Croatia</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>FDI Flows Stocks</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>China</td>
<td>x</td>
<td>x</td>
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<tr>
<td>Colombia</td>
<td>x</td>
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<td>Croatia</td>
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<td>x</td>
</tr>
</tbody>
</table>
The Movement of Natural Persons

- The movement of natural persons in GATS
  - Mode 4 service suppliers
  - Temporary movement
  - Statistics for measuring Mode 4
    - BOP statistics
    - FATS statistics
    - Migration statistics
    - Other possible sources
  - Improving Mode 4-related statistics

Mode 4 Service Suppliers

From the point of view of the recipient/importing country...
Mode 4 comprises services delivered in the framework of:

- Service contracts with foreign service suppliers
  (the individuals themselves or their employer)
- Employment contracts between enterprises established in the host country and foreign individuals

Areas of uncertainty:
- employment only with foreign-owned companies?
- what does the supply of a service refer to?
- many commitments currently focus on highly-skilled workers

Mode 4 and “Temporary”

GATS does not define “temporary”

- In WTO Members’ schedules of commitments
  - Varies between about 3 months (business visitors) and 2 to 5 years (intra-corporate transferees)
- In international statistical standards (BPM5, SNA, migrations)
  - One-year rule
  - distinction between residents/non-residents
  - Statistics on residents also include Mode 4 service suppliers

BOP and Mode 4

<table>
<thead>
<tr>
<th>BOP Items</th>
<th>Relevance</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Services (especially computer &amp; information, other business, personal cultural &amp; recreational, and construction services)</td>
<td>Service contracts with the importer</td>
<td>Include other modes of supply</td>
</tr>
</tbody>
</table>
### BOP and Mode 4

<table>
<thead>
<tr>
<th>BOP Items</th>
<th>Relevance</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation of employees</td>
<td>Employment contracts, generally &lt; 1 year</td>
<td>Includes workers not relevant for Mode 4 (non-services, and non-temporary)</td>
</tr>
<tr>
<td>Workers’ remittances</td>
<td>Indirect valuation for employment &gt; 1 year</td>
<td>Indirect indicator, and includes permanent migrants</td>
</tr>
<tr>
<td>Migrants’ transfer</td>
<td>Supplementary information</td>
<td></td>
</tr>
</tbody>
</table>

### FATS and Mode 4

**Relevant variables**
- Employment
- Compensation of employees

**Why relevant?**
- A number of trade commitments relate to intra-corporate transferees

**How could it help?**
- Separate identification of foreign non-permanent employment

### Migration Statistics and Mode 4

**Relevant framework**

**UN Recommendations on Statistics of International Migration**
- Include temporary migrations for the purpose of work

**Which categories could be relevant?**
- Foreign border-workers
- Visitors and foreign business travellers
- Some sub-categories of other migrant workers (within limits of occupation/activity): seasonal migrant workers, project-tied workers and temporary migrant workers

### Other Possible Sources

- Statistics on the number and type of work permits granted (e.g. by duration / occupation)
- Information from social security systems / health insurance schemes in which foreigners may be distinguished
- Statistics on arrivals and departures from migration or tourism authorities (origin/destination, length of stay, purpose of stay...)
- Household surveys / population censuses
Improving Mode 4 Related Statistics

Main difficulty in measuring Mode 4:
- Identify in available statistics the relevant subset of services and workers

Indicators on the value of Mode 4 services:
- Identify Mode 4 in services sub-items
- Identify the services sector in compensation of employees
  but little seems feasible at present

Migration/labour statistics:
  Sounder ground for improvement
However not in short-term, and GATS Mode 4 not translated in precise statistical requirements

Summary: Modes of Supply and Statistical Domains

<table>
<thead>
<tr>
<th>Mode of Supply</th>
<th>Relevant Statistical Domains</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mode 1: Cross border supply</td>
<td>BOP: commercial service (excluding travel and construction services)</td>
</tr>
<tr>
<td>Mode 2: Consumption abroad</td>
<td>BOP: Travel</td>
</tr>
<tr>
<td>Mode 3: Commercial presence</td>
<td>FATS statistics</td>
</tr>
<tr>
<td>Mode 4: Presence of natural persons</td>
<td>BOP: compensation of employees and workers' remittances</td>
</tr>
</tbody>
</table>

Sales by GATS Modes of Supply: Statistical Approximation

<table>
<thead>
<tr>
<th>Mode of Supply</th>
<th>Proxy</th>
<th>rough estimate (billion US$, %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - cross-border</td>
<td>BOP: commercial services exports (excluding travel)</td>
<td>1,000 (28%)</td>
</tr>
<tr>
<td>2 - consumption</td>
<td>BOP: travel exports</td>
<td>500 (14%)</td>
</tr>
<tr>
<td>3 - commercial</td>
<td>FATS Statistics: Turnover</td>
<td>2,000 (56%)</td>
</tr>
<tr>
<td>4 - movement of</td>
<td>BOP: compensation of employees</td>
<td>50 (2%)</td>
</tr>
<tr>
<td>natural persons</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Areas Where Improvements are Needed

- BOP trade in services
  - Few countries report the full BPM5 detail
  - Lack of statistics by partner countries
  - Lack of reliability
  - Documentation on coverage and deviations from international standards not available

- FATS
  - Lack of reliability and comparability
  - No FATS collected outside OECD
  - Confidentiality severely limits data availability

- No framework for statistics by mode of supply, in particular for Mode 4
MSITS’ Phased Approach to Implementation

5 core elements to improve international comparability
- Implement BPM5 recommendations for trade in services
- Compile BOP services according to EBOPS, starting with items of major economic importance to the country
- Compile FDI by ISIC categories of activity
- Compile basic FATS variables broken down by ICFA categories of activity
- Compile statistics by partner country

5 other elements to improve detail of available information
- Full implementation of EBOPS
- Compile FATS additional detail
- Compile statistics on the presence of natural persons
- Split BOP trade in services between trade among affiliated parties and trade with unrelated parties
- Allocate BOP trade in services by mode of supply