Measuring Global Trade

Purpose and Context of the
Regional Seminar on International Trade Statistics,
24-26 Oct 2011, Beijing, China

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1. Trade patterns and global value chains in East Asia
2. New Recommendations IMTS / SITS
3. Globalization issues
4. Trade Statistics and Enterprise Survey frames
5. Towards an integrated approach of trade in goods and services
6. Trade and other economic statistics
Why these topics?

1. Trade patterns and global value chains in East Asia
2. Globalization issues

1. New Recommendations IMTS / SITS
2. Trade Statistics and Enterprise Survey frames
3. Towards an integrated approach of trade in goods and services
4. Trade and other economic statistics

Keep Trade Statistics Relevant!

1. Who needs trade statistics?
2. Which trade statistics do they need?

1. New Recommendations IMTS / SITS
2. Implementation processes
3. National needs
Global Forum on Trade Statistics
Measuring Global Trade - Do we have the right numbers?
organized jointly by UNSD and Eurostat in collaboration with WTO and UNCTAD
2-4 February 2011, Geneva, Switzerland

1. Measuring Global Trade
2. New Recommendations IMTS / SITS
3. Data Sources
4. Global Production and Outsourcing
5. Linking Trade and Business Statistics
6. Trade in Value-Added

1. Measuring Global Trade
   - Messages from different angles

2. Global Production and Outsourcing
   - International outsourcing
   - Inward and Outward FATS

3. New Recommendations IMTS / SITS
   - Example of Statistics Norway

4. Data Sources

5. Linking Trade and Business Statistics
   - Examples of ISTAT, Statistics Netherlands and Statistics New Zealand

6. Trade in Value-Added
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Messages from Policy Makers

- Make everyone aware of the fragmentation of the production process and move the measurement of it forward

- The changing patterns of trade and production have important implications in the broader context of development strategies.

- Current statistical data are deficient for international trade in services from the point of view of both analysis of such trade and use by negotiators.
Messages from Statisticians

- Trade in Goods (high quality) and Trade in Services (low quality) → better balance necessary
- We need a quality profile for International Trade Statistics
- Fully integrated data warehouse for international trade is recommended as in Vision statement. Sharing good practices is important
- Better use of trade statistics by linking it to other economic statistics, but also energy and environment statistics

Messages from Researchers

- More Trade Statistics on Services
- Better distinction of traded goods into intermediate goods and final goods
- More information on intra-firm trade
- Better linking of Trade and Enterprise statistics
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6. **Trade in Value-Added**

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**Value Chain analysis shows the value-added of goods and services in the production process**

**Global Value Chains shows the Trade in goods and services in the Global Production process**
Global Production → Statistics Denmark
International Sourcing study

**Core business function:**
Production of final goods or services intended for the market/for third parties carried out by the enterprise and yielding income.

**Support business function:**
Support business functions (ancillary activities) are carried out in order to permit or facilitate production of goods or services intended for the market/for third parties by the enterprise.

- Distribution and logistics
- Marketing, sales and after sales services
- ICT services
- Administrative and management functions
- Engineering and related technical services
- Research & Development
- Other support functions
Inward vs. Outward FATS

Compiled economy

Inward FATS
- Resident enterprise (FDI > 50%)
- Non-Resident enterprise (FDI > 50%)

Outward FATS
- Turnover
- Employment
- Number of enterprises

Mandatory FATS variables [EUROSTAT]

- Number of enterprises
- Turnover
- Number of persons employed
  \{ Inward & Outward FATS \}

- Value added at factor cost
- Gross investment in tangible goods
- Personnel costs
- Production value
- Total purchases of goods and services
- Purchases of goods and services for resale
- Total intra-mural R&D expenditure
- Total number of R&D personnel
  \{ Inward FATS \}

Foreign Affiliates Statistics (FATS)
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New recommendations for IMTS

- Valuation: Imports on the FOB basis in addition to the standard CIF valuation; valuation of specific categories of goods;
- Partner country: Recording of a second partner country (country of consignment);
- Mode of transport
- Customs procedure codes
Implementation Programme of MSITS 2010

- New Service Category: “Manufacturing services on inputs owned by others”
- Focus on Compilers Manual for MSITS 2010 (detailed service categories and detailed FATS)
- MORE DETAIL!
- Trading Partners
- Technical assistance

Example of Statistics Norway

- Statistics Norway is exclusively responsible for all statistics related to international trade
- Does not have FOB type import, but calculates value of freight and insurance based on micro trade data
- One unique identification of all traders (same as in the business register and business statistics)
- FATS is being established
  - Figures on inward FATS published in 2010
  - Outward FATS is under development
**IMTS**

- IMTS in Norway is mainly based on customs data
- However, very important data categories (oil, gas, ships and airplanes, electricity, coal) are based on direct reporting of transaction value from enterprises
- Customs data are transferred on a daily basis

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**SITS**

- The SITS is based on a quarterly sample survey since 2005
  - about 4000 enterprises in annual survey and
  - about 400 in quarterly survey
- The quarterly survey now has an increased sample
  - *Quarterly sample size in 2011: 3000 enterprises*
- The annual survey was terminated in 2009
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Linking Trade and Business Statistics

Italy

The link between the list of trade operators and the Business Register is the GATEWAY to any new and successful developments in trade statistics.

- **Trade flows micro-data**
- **List of Trade operators**
- **Business surveys**
- **Administrative and fiscal data**
- **Special surveys on Globalisation: MNEs and international sourcing**

**FIRST TYPE OF OUTPUT**
- "new figures" based on the count of trade operators, for instance by products and markets

**SECOND TYPE OF OUTPUT**
- "new figures" on the business characteristics of exporting and importing enterprises

**THIRD TYPE OF OUTPUT**
- "new figures" and analysis based on the full integration between Trade and Business Statistics
Linking Trade and Business Statistics

Netherlands

Integrating economical, functional and social statistics

Enterprise \{ 1 : M \} \rightarrow \{ Firm \} \{ 1 : N \} \rightarrow \{ Job \} \{ 1 : P \} \rightarrow \{ Person \}

- Statistics of Finances of Enterprises
- Ownership (UCI)
- ConGO
- Business Register
- International Trade
- Fiscal Data
- Structural Business Surveys and short term indicators
- Investments
- R&D
- Job Register
- Fiscal Data
- Surveys Persons and Households
- Population register
# Linking Trade and Business Statistics

## New Zealand

What’s in the LBD?

<table>
<thead>
<tr>
<th>Longitudinal Business Database</th>
<th>Survey data</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Administrative data</strong></td>
<td>• Annual Enterprise Survey</td>
</tr>
<tr>
<td>• Goods and services tax data</td>
<td>• Business Operations Survey</td>
</tr>
<tr>
<td>• Financial accounts (IR10)</td>
<td>• Manufacturing and Energy Use Survey</td>
</tr>
<tr>
<td>• Company tax returns (IR4)</td>
<td>• Business Finance Survey</td>
</tr>
<tr>
<td>• Linked Employer Employee Database</td>
<td>• Research and Development Survey</td>
</tr>
<tr>
<td>• Overseas merchandise trade</td>
<td>• International Trade in Services and Royalties</td>
</tr>
<tr>
<td>• Government assistance data</td>
<td></td>
</tr>
</tbody>
</table>

Longitudinal Business Frame
Contains longitudinally linked data for most enterprises operating in NZ. Includes information on:
- employment
- location
- industry
- ownership relationship

Allows individual business to be tracked over time.
Protocols for using the LBD

Integrating data raises issues around privacy, confidentiality, and security
- access is granted to government employees for research purposes
- non-departmental research access is by secondment
- anonymised data accessed only through the Data Lab
- outputs subject to confidentiality checks.

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Fragmentation of production: the example of the Boeing 787 Dreamliner

Source: www.newairplane.com

Escape slides: Air Cruisers (USA)

Horizontal Stabiliser: Alenia Aeronautica (Italy)

Centre fuselage: Alenia Aeronautica (Italy)

Final assembly: Boeing Commercial Airplanes (USA)

Vertical Stabiliser: Boeing Commercial Airplanes (USA)

Lavatories: Zodiac (Japan)

Doors & windows: Zodiac Aerospace (USA)

PPG Aerospace (USA)

Centre wing box: Fuji Heavy Industries (Japan)

Wing box: Mitsubishi Heavy Industries (Japan)

Wing ice protection: GKN Aerospace (UK)

Rear fuselage: Boeing South Carolina (USA)

Doors & windows: Zodiac Aerospace (USA)

Air Cruisers (USA)

PPG Aerospace (USA)

Escape slides: Air Cruisers (USA)

Electric brakes: Messier-Bugatti (France)

Tires: Bridgestone Tires (Japan)

Prepreg composites: Toray (Japan)

Cargo doors: Saab (Sweden)

Spirit Aerosystems (USA)

Forward fuselage: Kawasaki Heavy Industries (Japan)

Spirit Aerosystems (USA)

Escape slides: Air Cruisers (USA)

Flight deck seats: Ipeco (UK)

Flight deck controls: Esterline (USA), Moog (USA)

Aux. power unit: Hamilton Sundstrand (USA)

Raked wing tips: Korean Airlines Aerospace division (Korea)

Horizontal Stabiliser: Alenia Aeronautica (Italy)

Passenger doors: Latécoère Aéroservices (France)

Cargo doors: Saab (Sweden)

Prepreg composites: Toray (Japan)

Final assembly: Boeing Commercial Airplanes (USA)

Engines: GE Engines (USA), Rolls Royce (UK)

Engine nacelles: Goodrich (USA)

Tools/Software: Dassault Systemes (France)

Navigation: Honeywell (USA)

Pilot control system: Rockwell Colins (USA)

Wiring: Safran (France)

Secondary value-added exports (VS1)
Outcome and Follow-up to the Global Forum on Trade Statistics

Global Forum on Trade Statistics
organized jointly by UNSD and Eurostat in collaboration with WTO and UNCTAD
2–4 February 2011, Geneva, Switzerland

Vision of the future of international trade statistics

Responding to demands of policy makers for more information on international trade and its relation to global value chains, employment, environment and the interdependence of economies, the participants of the Global Forum on Trade Statistics identify the following points of improvement:

- Improve the relevance of international trade statistics by connecting trade information and integrating it with its economic, social, environmental and financial dimensions while minimizing the response burden.
- Improve the statistical production process by better defining and organizing the co-operation among national stakeholders.
- Improve international classifications and correspondence tables relevant for research on international trade and globalization, such as research on trade in value added, on global value chains and on outsourcing of business functions.

- Agenda: Visionary / PDF
- List of participants / Countries / International organizations
- Report of the Forum: PDF (Updated 18 May 2011)
- Outline of the Compendium on International Trade and Business Statistics: PDF
- Vision Statement: PDF (Updated 15 March 2011)
- Trade Information Systems in 2020 – Background note: PDF
Thank you