Outline of Chapter 9: Global Value Chains Case Study Approach

UN Expert Group on International Trade and Economic Globalization Statistics

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2016-11-30
Background

- **Objective**
  - To create a robust, repeatable and operationally viable statistical product that is complementary to existing statistical outputs

- **Challenges**
  - Knowledge gaps
  - Data gaps
  - Data sharing...reconciling bilateral trade flows
  - Case study vs. repeatable measures that are operationally realistic
Outline of chapter
Section 1: Introduction to satellite accounts

- **Section will introduce satellite accounting and how it can be a useful tool in the context of the Handbook**
  - Highlight strength of the satellite account approach focussing on:
    - Linkages and coherence with other traditional accounts
    - Flexibility/expandability
  - Some of the questions that can be addressed by the GVC Satellite Account
    - What is the value added across the different components of the business process – from conception to distribution and support.
    - Where (geographically) does the value added occur across the different components?
    - Where (geographically) does the income flow occur and does it ‘stick’ with the value added?
    - Where does the ‘wealth’ flow occur and does it ‘stick’ with the value added?
Outline of chapter
Section 2: Constructing a satellite account

- **Section will lay out the steps involved in constructing a satellite account including the need to:**
  
  - Develop a measurable definition of a global value chain.
  - Develop the basic structure (e.g., the specific components) and dimensions of the Global Value Chain Satellite Account including:
    - The development of the classifications systems (products, industries, assets, sectors, expenditures, business functions)
    - Identify the methods used to compile the GVC satellite account (allocation factors, deflators, models or other statistical techniques), data gaps and establish processes for dealing with incoherence and asymmetries.
    - Outline the statistical products associated with the satellite account (production, incomes, investment and wealth generation along the different dimensions of the global value chain).
Outline of chapter
Section 3: Defining GVCs

- *Section will provide overview of recent research in the area of global value chain and propose a definition that can be used in the construction of a GVC satellite account.*
  
  - Highlight the uniqueness of GVCs (single definition that will fit a clothing, automotive, pharmaceutical or energy is not feasible)
  - Propose principles upon which the definition should be developed including:
    - Relevance, measurability and applicability
  - Other important concepts and definitions including:
    - Affiliated Trade, Ownership, Logistics, Materials, Intellectual Property
Section 4: Identifying classifications to be used

- Section will highlight the relevant classifications and variants to be used in the GVC satellite account
  - Relevant product classifications: CPC, EBOPs, BEC and Harmonised System (HS)
  - Industry classifications: ISIC Rev 4, NAICS and other ‘regional’ industrial classifications
  - Business function classification
Outline of chapter
Section 4: Identifying classifications to be used....continued

**Business function classification:** It is proposed that for each of these processes, measures of production, value added, incomes, investment by geography, by type of transaction are articulated

- Core Business Functions
  - Production of goods
  - Production of services
- Transport, logistics and distribution support functions
- Marketing, sales, after sales service support function
- IT services and software support functions
  - IT Services
  - Software Services
- Management, administration and back-office support function
- R&D, Engineering and related technical services and R&D support functions
  - Research and Development services
  - Engineering and related technical services (except R&D)
- Other business functions
  - Maintenance and repair services
  - Education and training
  - Other
Outline of chapter

Section 5: Sources and methods

- **Section will outline the different data sources and methods that will need to be employed in order to construct a GVC satellite account. Specifically it will outline the need for:**
  - Integrated Supply and Use Tables
  - Integrated Income, Expenditure and Capital Accounts
  - Integrated Balance Sheet Accounts
  - Data on intra-firm trade and ancillary services and their linkages across the GVC.

An important part of this chapter will be an emphasis on how micro data will be required to build a substantial part of the GVC satellite account.
Highlight the importance the sector plays in North America’s economic growth, employment and investment and the need comprehensive and timely statistics in order to assess the evolution, structure, role and contribution of this sector to the North American economy.

The North American Automotive Sector Global Value Chain Satellite Account is an organizing and expandable framework that can be used to analyze the North American automotive global value chain in the context of the Canadian, US, Mexican and integrated North American economy. This structure provides an easy and convenient way to understand and analyze the automotive sector comparable with the total North American economy.

Articulate several statistical tables that highlight information related to production, inputs, incomes, employment and investment.
Additional considerations
Leverage existing work and product development

- Beyond cross border statistics (based on FDI concepts, trade flows)
  - Expanded outward foreign affiliate statistics (majority-owned foreign affiliates - MOFA)
  - New estimates of inward foreign affiliate statistics (majority-owned domestic affiliates - MODA)
    - Regional employment by foreign controlled firms
  - Improved estimates of trade by enterprise characteristics (TEC), TiVA estimates
- Micro-macro data datasets of MNEs operating in Canada and abroad
  - Integrating the above databases into one framework, covering all multinationals and all trading enterprises in order to support
    - Globalization statistical work (e.g., goods for processing)
    - Generate new macro products relating to enterprises global activities and effects
## Additional considerations

### Macro – micro data linkage

<table>
<thead>
<tr>
<th>ENTERPRISES/Characteristics (by size, industry &amp; geography (countries, regions), activities, assets-liabilities, performance)</th>
<th>ALL CANADIAN FIRMS</th>
<th>FOREIGN AFFILIATES</th>
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</thead>
<tbody>
<tr>
<td><strong>Globally Consolidated Totals for CDIA MOFA parents, or ultimate parents (1), (2)</strong></td>
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<td>Canadian Consolidated Totals</td>
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<td>OTHER FIRMS</td>
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<td>Non-FDI TRADING FIRMS</td>
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<td>FDI TRADING FIRMS</td>
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<td><strong>FDIC MODA activity</strong></td>
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<td>CDIA MOFA</td>
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<td>CDIA NON MOFA</td>
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<td><strong>AMNE STATISTICS FOR FDI FIRMS (CDIA and FDIC)</strong></td>
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<td>Parent Activity in Canada (1a)</td>
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<td>Of which: ultimate CDIA FIRMS (1b)</td>
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<td>MOFA: Sub Activities abroad</td>
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<td>O-FATS</td>
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<td><strong>Parent Activity</strong></td>
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<td><strong>Affiliate Activity</strong></td>
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<td>Other special tabs (e.g., round tripping in FDIC)</td>
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</tbody>
</table>

- **# of firms**: N/A
- **Size of firms**: N/A
- **Geography**: Canadian controlled, foreign controlled; Domestic regions
- **VA + SUT variables**: N/A
- **Income/profits; FDI income components**: N/A
- **Assets**: Of which: FDI
  - Of which: PI
- **Liabilities**: Of which: FDI
  - Of which: PI
- **Equity (A-L)**
- **Employment**: N/A
- **R&D**: N/A
- **Trade (TEC)**:
  - Imports of Goods: N/A
  - Imports of Services: N/A
  - Exports of Goods (merchandise basis): N/A
  - Exports of Services: N/A
- **other variables...**: N/A
Additional considerations
Progress on NA-SUT project

- Several teleconferences and meeting in Ottawa from November 16-18, 2016.
  - Participants: US (BEA, US ITC, Census (teleconference)), Mexico (INEGI), and Statistics Canada.
  - Creation of 4 working teams: SUT, trade in goods, trade in services, and white paper.

- The next steps:
  - Canada and US will generate geographic detail of imports, exports in current national classifications of SUTs (2008 and 2013?). As a minimum for Canada, Mexico, U.S. and rest of the world.
  - Create common classifications for the NA SUTs.
  - Harmonize trade between the two countries based on the SUT common product classification. Feedback trade asymmetries to trade in goods and trade in services teams.
  - Publish an integrated NA SUT or at least a Canada-U.S. SUT.
  - Document lessons learned and approaches in the hopes of simplifying tasks for our Mexican colleagues if they integrate the project at a later date.