Regional Workshop on International Merchandise Trade Statistics

Strengthening Data Compilation and Analytical Capacity

11-13 September, 2017
Suzhou, China

Agenda item 17: BEC, Revision 5
BEC

- Broad Economic Categories (BEC) is an international product classification

- Main purpose is to provide a set of broad product categories that can be utilized for the analysis of trade statistics – linked to end-use of goods in SNA
  - Intermediate, Capital and Final Consumption
Why using BEC?

• Trade Research
  ◦ the main focus has been on describing, assessing and explaining observed patterns in international trade, tariff effects, trade policy, and development economics

• Statistics
  ◦ Commodity flow analysis of imported goods
Revisions of BEC

- Original BEC in 1971 (SITC, Rev.1)
- First revision 1976 (SITC, Rev.2)
- Second revision 1984 (SITC, Rev.3)
- Third revision 1986 (corrigendum)
- Fourth revision 2002 (SITC, Rev.4)
- Fifth revision 2016 (HS 2017, CPC 2.1)
Major changes

- Addition of “services” and will therefore refer to products rather than goods

- Separate dimensions for broad economic categories and SNA end-use in main structure

- Addition of new dimension (the specification dimension) to differentiate intermediates that are generic, from those that are specified
“Complex” Structure of BEC 4

Figure 1. BEC Rev.4 - Relationships

1) Broad Economic Categories
   1) Food and beverages
   2) Industrial supplies nec (i.e. intermediate goods nec)
   3) Fuels and lubricants
   4) Capital goods (except transport equipment)
   5) Transport equipment
   6) Consumer goods nec

2) Product dimension
   Goods (applies to all categories and dimensions)
   - Intermediate consumption
   - Gross fixed capital formation
   - Final consumption

3) SNA end use dimension
   - Primary
   - Processed

4) Processing dimension
   - Not specified in BEC Rev4

5) Specification dimension
   - Durable
   - Non-durable

6) Durability dimension
“Streamlined” Structure of BEC 5

![Diagram of the "Streamlined" Structure of BEC 5]

**Figure 2. BEC Rev.5 - Relationships**

1) Broad Economic Categories
   - Food, beverages, agriculture, catering
   - Energy, mining, basic metals and chemicals
   - Construction, housing, appliances, and furniture
   - Textile apparel, footwear, and jewelry
   - Transport equipment and travel services
   - ICT, business, finance, and media
   - Health, sports, cultural activities, and education
   - Government and other

2) Product dimension
   - Goods
     - Intermediate consumption
     - Gross fixed capital formation
     - Final consumption
   - Services

3) SNA end use dimension
   - Primary
   - Processed

4) Processing dimension
   - Generic
   - Specific

5) Specification dimension
   - Durable
   - Non-durable

6) Durability dimension
Level 1: Broad Economic Categories

- Reflecting the economic structure of societies
- Inspired by ISIC and COICOP
- Linkage to HS (for goods) and CPC (for services) → maintained by UNSD

1) Food, beverages, agriculture, catering
2) Energy, mining, basic metals and chemicals
3) Construction, housing, appliances, and furniture
4) Textile apparel, footwear, and jewelry
5) Transport equipment and travel services
6) ICT, business, finance, and media
7) Health, sports, cultural activities, and education
8) Government and other
Level 2: Product Dimension

- Two categories: (1) **Goods** and (2) **Services**;

- This distinction only applies to the end use of intermediate and final consumption; services do not apply to gross fixed capital formation.
Level 3: SNA end use Dimension

Three categories:

1. intermediate consumption;
2. gross fixed capital formation;
3. final consumption
Level 4: Processing Dimension

- Two categories: (1) Primary and (2) Processed

- This distinction only applies to goods and only to intermediate and final consumption (no primary goods as gross fixed capital formation)
Level 5: Specification Dimension

Two categories:
1) **Generic** and
2) **Specified**;

This distinction applies to services and processed goods, applies **mostly to intermediate consumption**, and could apply to goods for gross fixed capital formation.
Level 6: Durability Dimension

- Two categories: (1) Non-durable and (2) Durable; only applies to goods and only to final consumption;
BEC and GVC Analysis

- **Intermediate goods** play important role in GVC analysis,
- BEC Rev.5 can support the GVC analysis
Structure of BEC Rev.5 (example)

5 Transport equipment and services, travel, postal services

51 Goods
511 Intermediate Consumption
5111 Primary
5112 Processed
511210 Generic
511220 Specified
512 Gross Fixed Capital Formation
512010 Generic
512020 Specified
513 Final Consumption
5131 Primary
513101 Non-durable
513102 Durable
5132 Processed
513201 Non-durable
513202 Durable
52 Services
521 Intermediate Consumption
521010 Generic
521020 Specified
523 Final Consumption
Coding of BEC Rev.5 (Example)

- Code 111110 is “Agriculture, forestry, fishing, food, beverages, tobacco” and is a generic primary good for intermediate consumption.
- Code 613102 is processed durable good for final consumption belonging to the category of “ICT, media, computers, business and financial services”
- Code 621010 stands for a generic service for intermediate consumption belonging to the category of “ICT, media, computers, business and financial services”
## Breakdown of CPC and HS categories by top level BEC categories

<table>
<thead>
<tr>
<th>BEC – Broad Economic Categories</th>
<th>CPC Services</th>
<th>HS Goods</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Category 1</strong> Agriculture, forestry, fishing, food, beverages, tobacco</td>
<td>178</td>
<td>972</td>
</tr>
<tr>
<td><strong>Category 2</strong> Mining, quarrying, refinery, fuels, chemicals, electricity, water, waste treatment</td>
<td>75</td>
<td>983</td>
</tr>
<tr>
<td><strong>Category 3</strong> Construction, wood, glass, stone, basic metals, housing, electrical appliances, furniture</td>
<td>224</td>
<td>1313</td>
</tr>
<tr>
<td><strong>Category 4</strong> Textile, apparel, shoes, jewelry, leather</td>
<td>88</td>
<td>895</td>
</tr>
<tr>
<td><strong>Category 5</strong> Transport equipment and services, travel, postal services</td>
<td>136</td>
<td>180</td>
</tr>
<tr>
<td><strong>Category 6</strong> ICT, media, computers, business and financial services</td>
<td>289</td>
<td>441</td>
</tr>
<tr>
<td><strong>Category 7</strong> Health, pharmaceuticals, education, cultural, sport</td>
<td>126</td>
<td>178</td>
</tr>
<tr>
<td><strong>Category 8</strong> Government, military and other</td>
<td>168</td>
<td>139</td>
</tr>
<tr>
<td><strong>Total</strong> All products</td>
<td>1284</td>
<td>5101</td>
</tr>
</tbody>
</table>
Identification of end-use

- For many products, it is relatively simple, for others challenges remain:
  - **Dual use products** especially due to differences in national practices
  - **Level of details** in HS and CPC product classifications

→ Allocation in Supply Use Tables can be used as reference point
Work to be done

- Finalize the correspondence tables between BEC Rev.5 and HS and CPC

- Provide advice on allocation of products by end-use categories.
Questions?