Workshop for Developing Countries on the Revision of the International Recommendations for the IMTS


How to Produce Statistics on Imports FOB?

The Brazilian Experience
Why to produce imports fob?

- With the current globalization and the growing need to examine bilateral trade, the data production of import fob, with the greatest level of detail possible as information (by the addition of the Declaration of Import), is essential to identify the likely comparative differences.

- When you compare statistics of two countries, the idea is to compare the flow (export and import) using the same valuation (incoterm) and, as most of the data are in export FOB, it is essential to have data fob imports, in order to not find unrealistic differences.
Why to produce imports fob?

Likewise, statistical data of import fob are widely used by Central Banks in balances of payment and systems of national accounts. When a country does not produce statistics for imports FOB, it uses statistical methods based on experiences that usually distort bilateral figures, mainly because these models do not take into account the characteristics of products traded, distance, mode of transport and so on.
In Brazil, all foreign trade operations are automated through the Integrated System of Foreign Trade – SISCOMEX -, involving the three bodies responsible for Brazilian foreign trade: Ministry of Finance, Secretary of Foreign Trade and Central Bank of Brazil, each with their own specific activities.

On the next slides, I will present how we obtain the imports fob data in Brazil using that System.
How to produce statistics on imports fob? The Brazilian experience.

◆ **STEP 1** - The importer access the SISCOMEX and supplies all business information, including incoterm used in the condition of purchase, typing all the values in the same condition;

◆ **STEP 2** – Internally, the system evaluates the information provided and converts, systemically, all incoterms to the value of the goods at the place of boarding, equivalent to the FOB value.
STEP 3 - Once a declaration of import contains more than one commodity, the system makes the distribution of additional costs in accordance with the incoterm used. If you have only one product, the distribution of costs is direct;

STEP 4 - We take as an example a statement on the condition of import purchasing CIF (Cost, Insurance and Freight) and with several additions (more than a commodity):
How to produce statistics on imports fob? The Brazilian experience.

◆ **STEP 5** - The distribution of freight is made in proportion to the net weight of each commodity;

◆ **STEP 6** - The distribution of the insurance is made in proportion to the value of each commodity.

With the steps 5 and 6, we have, for example:

- Value of imports CIF: 10,000
- Net weight in kg: 10,000
- Total amount of freight: 1,000
- Total value of insurance: 1,000
- Number of goods of DI: 5 items of the HS
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◆ STEP 8 - Value of each Addition:

- Commodity 1 - Value of imports CIF: 1,000
  Net weight in kg: 7,000

- Commodity 2 - Value of imports CIF: 2,000
  Net weight in kg: 200

- Commodity 3 - Value of imports CIF: 3,000
  Net weight in kg: 1,300

- Commodity 4 - Value of imports CIF: 2,000
  Net weight in kg: 1,300

- Commodity 5 - Value of imports CIF: 2,000
  Net weight in kg: 200
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◆ **STEP 9 - Distribution of freight (1,000) by Kg**

Commodity 1 - Value of imports CIF: 1,000  
Net weight in kg: 7,000  -> 700

Commodity 2 - Value of imports CIF: 2,000  
Net weight in kg: 200  -> 20

Commodity 3 - Value of imports CIF: 3,000  
Net weight in kg: 1,300  -> 130

Commodity 4 - Value of imports CIF: 2,000  
Net weight in kg: 1,300  -> 130

Commodity 5 - Value of imports CIF: 2,000  
Net weight in kg: 200  -> 20
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- **STEP 10 - Distribution of Insurance (1,000)**
  - **Commodity 1 - Value of imports CIF: 1,000** -> 100
    - Net weight in kg: 7,000
  - **Commodity 2 - Value of imports CIF: 2,000** -> 200
    - Net weight in kg: 200
  - **Commodity 3 - Value of imports CIF: 3,000** -> 300
    - Net weight in kg: 1,300
  - **Commodity 4 - Value of imports CIF: 2,000** -> 200
    - Net weight in kg: 1,300
  - **Commodity 5 - Value of imports CIF: 2,000** -> 200
    - Net weight in kg: 200
How to produce statistics on imports fob? The Brazilian experience.

◆ **STEP 11 - Calculation of FOB value of goods:**

Commodity 1 - Value of imports CIF: 1,000 -100-700 = 200 fob
Net weight in kg: 7,000

Commodity 2 - Value of imports CIF: 2,000 -200-20 = 1,780 fob
Net weight in kg: 200

Commodity 3 - Value of imports CIF: 3,000 -300-130=2,570 fob
Net weight in kg: 1,300

Commodity 4 - Value of imports CIF: 2,000 -200-130 = 1,570 fob
Net weight in kg: 1,300

Commodity 5 - Value of imports CIF: 2,000 -200-20 = 1,780 fob
Net weight in kg: 200
Additionally, that methodology can be applied on a manual system of statistics production or on hybrid systems (papers and automatic systems).
### Comparative of all incoterms with FOB

<table>
<thead>
<tr>
<th>Contract Type</th>
<th>Description</th>
<th>Incoterm</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C + F</td>
<td>Cost plus freight</td>
<td>DDU</td>
<td>Delivered duty unpaid</td>
</tr>
<tr>
<td>C + I</td>
<td>Cost plus insurance</td>
<td>DEQ</td>
<td>Delivered ex quay (duty paid)</td>
</tr>
<tr>
<td>CFR</td>
<td>Cost and freight</td>
<td>DES</td>
<td>Delivered ex ship</td>
</tr>
<tr>
<td>CIF</td>
<td>Cost, insurance and freight</td>
<td>EXW</td>
<td>Ex works &lt;=</td>
</tr>
<tr>
<td>CIP</td>
<td>Carriage and insurance paid to</td>
<td>FAS</td>
<td>Free alongside ship &lt;=</td>
</tr>
<tr>
<td>CPT</td>
<td>Carriage paid to</td>
<td>FCA</td>
<td>Free carrier &lt;=</td>
</tr>
<tr>
<td>DAF</td>
<td>Delivered at frontier &gt;=</td>
<td>FOB</td>
<td>Free on board =</td>
</tr>
<tr>
<td>DDP</td>
<td>Delivered duty paid</td>
<td>OSC</td>
<td>Another condition of sale &gt;=</td>
</tr>
</tbody>
</table>
How to produce statistics on imports fob? The Brazilian experience.

Note: (+) sum to the value on condition of sale
(-) Reduces the value on condition of sale

|                                | EX | W | F | C | A | F | A | Z | F | O | B | C | F | R | C | P | T | C | I | P | D | A | F | D | E | Q | D | D | U | D | D | P |
| Value on condition of sale     | +  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Shipping in the exporting country | +  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Secure in the exporting country | +  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| L / U / H in the exporting country | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| International Freight          |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| International Insurance        |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Loading, unloading and handling international |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Customs duties and taxes       |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Freight in the country of importation |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Insurance in the country of importation |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| L / U / H in the country of importation |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Interest on financing          |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Another costs                  |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
A PRACTICAL EXAMPLE OF RECENT BILATERAL ANALYSIS:

BRAZIL/Exports X CHINA/Imports: FOB x CIF

Influences of the comparison FOB / CIF
History:

To improve the discussions during the bilateral negotiations between Brazil and China, it was created a Statistical harmonization Group, with the purpose to identify and eliminate differences, producing data acceptable by the two countries (not official, but accepted by Brazil and China ond the negociations).
Statistics Harmonization Group Brazil x China

◆ Work Methodology:
◆ The Statistics Harmonization Group Brazil x China set a work methodology, which provides for the exchange of statistical data with the greatest possible detail, managers and each country, lay-out of data to be exchanged and the type of work to be done, and yet set an agenda for meetings with the analysis of flows Brazil-Imports x China-Exports and Brazil-Exports x China-Imports. Completed the analyses the SHG will be established a series of rules to be considered for the examination of the numbers until end 2010, when it closes the deal.
The main concepts included in the work methodology to be considered for the development of the tests were:

1. Coverage (which includes and excludes)
2. Time of recording
3. System of Trade (General and/or Special)
4. Classification of goods (HS)
5. Valuation (FOB/FOB, FOB/CIF or CIF/CIF)
6. Unit of the quantity (of HS)
7. Country partner (the concept of country)
8. Effects of indirect trade
Statistics Harmonization Group Brazil x China

**Brazil EXPORTs x China IMPORTs:**

<table>
<thead>
<tr>
<th>Period</th>
<th>BRASIL EXP</th>
<th>CHINA IMP</th>
<th>VARIATION Brazil X China</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>US$ MILLIONS FOB</td>
<td>US$ MILLIONS CIF</td>
<td>Value</td>
</tr>
<tr>
<td>2004</td>
<td>5.440</td>
<td>8.684</td>
<td>(3.244)</td>
</tr>
<tr>
<td>2005</td>
<td>6.834</td>
<td>9.982</td>
<td>(3.148)</td>
</tr>
<tr>
<td>2006</td>
<td>8.400</td>
<td>12.907</td>
<td>(4.508)</td>
</tr>
<tr>
<td>2007</td>
<td>12.134</td>
<td>18.812</td>
<td>(6.678)</td>
</tr>
</tbody>
</table>

**Source:** Brazil = Siscomex  China = Customs
Statistics Harmonization Group Brazil x China

Comparative Brasil-Exports x China-Imports:

Major causes of the discrepancies:

1 - INCOTERM FOB x CIF (some products exported to China has the value of freight from 2 (soybeans) to 3 (iron ore) times the value of goods) represents **88%** of the total discrepancies

2 - indirect effects of trade = 3%

3 - Time of recording (distance great indicates different times)

4 - Goods classification (HS) - Trend of Chinese classify most of the items in “Others”

5 - Divergence in units of the statistics quantities

6 - About-valuation and under-valuation
Statistics Harmonization Group Brazil x China

**Brazil-IMPORTs x China-EXPORTs:**

<table>
<thead>
<tr>
<th>Period</th>
<th>IMP BRASIL</th>
<th>EXP CHINA</th>
<th>VARIATION Brazil X China</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>US$ MILLIONS FOB</td>
<td>US$ MILLIONS FOB</td>
<td>Value</td>
</tr>
<tr>
<td>2004</td>
<td>3.710</td>
<td>3.675</td>
<td>36</td>
</tr>
<tr>
<td>2005</td>
<td>5.355</td>
<td>4.829</td>
<td>525</td>
</tr>
<tr>
<td>2006</td>
<td>7.989</td>
<td>7.380</td>
<td>609</td>
</tr>
<tr>
<td>2007</td>
<td>10.288</td>
<td>10.758</td>
<td>(470)</td>
</tr>
</tbody>
</table>

**Source:** Brazil = Siscomex  China = Customs
Statistics Harmonization Group Brazil x China

- Comparative Brasil-Imports x China-Exports:

- Major causes of the discrepancies:
  
  - 1 - Effects of indirect trade = 78%
  - 2 - Moment of record = 16%
  - 3 - Classification of goods (HS) - Trend of Chinese classify most of the items in “Others”
  - 4 - Divergence in units of the quantities
  - 5 - Tiered Pricing
  - 6 - Under-valuation and over-valuation (leakage of taxes and safeguards)
The IMTS recommendation (Rev.2)

Par. 116. To promote the comparability of international merchandise trade statistics and taking into account the commercial and data reporting practices of the majority of countries, it is recommended that:

- (a) The statistical value of imported goods be a CIF-type value;

Par. 121. It is recommended that countries which use CIF-type values of imports make efforts to collect separately data for freight and insurance, at the most detailed commodity/partner level possible, in order to derive the FOB-type values needed for national accounts and balance of payments statistics. When such data are not available directly, countries may wish to obtain them through sampling.
New IMTS recommendation (Rev.3) (suggest) (for discussion)

Par. 116(?). To promote the comparability of international merchandise trade statistics, for national accounts and balance of payments statistics and taking into account the commercial and data reporting practices of countries, it is recommended that:

- (a) *The statistical value of imported goods* be a FOB - type value;

Par. 121(?). *It is recommended* that countries which use CIF-type values of imports make efforts to collect separately data for freight and insurance, at the most detailed commodity/partner level possible, in order to derive the FOB - type values needed. When these data are not available directly, countries may wish to obtain them through sampling or applying the method of distribution used by several countries, available in Annex “nn”.
Lecturer

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