Regional Workshop on International Merchandise Trade Statistics

Strengthening Data Compilation and Analytical Capacity

11-13 September, 2017
Suzhou, China

Agenda item 9: Data Processing
PART II. DATA PROCESSING SYSTEM

15:45 – 17:00
Agenda item (9)
Data processing system; validation, consistency checking, detections of outliers and data estimation/imputation; and ensuring quality of quantity information

(a) Introduction (UNSD)
(b) Outliers detection (ITC)
(c) Country experiences (China Customs, Cambodia)

17:00 – 17:30
Agenda item (10)
Data processing system of UN Comtrade (UNSD)
Quality indicators related to Data Processing
“Coverage – Do you include everything?”

- Share of electronic declarations in data collected by Customs (% of total trade value)
  - Do you still use paper declarations? How are they being processed? When are they added? What is their quality?

- Share of trade data collected via Customs declarations (% of total trade value)
  - How much data is collected from other sources such Oil Ministry, Electricity companies, etc?

- Estimation of low value trade not requiring Customs declarations
  - Is this done? How is it done?
Quality indicators related to Data Processing

“Availability of quantity information”

- Number of 8-digit product codes without quantity
- Share of records without quantity (% from total trade value)
- Share of estimated quantity (% of total trade value)

“Revision policy”

- How often do you revise data?
- Do you archive all revisions?
- Estimation of low value trade not requiring Customs declarations
Quality indicators related to Data Processing
“Data Validation”

- **Validation of input**
  - Does the declaration system of Customs contain mandatory fields, relevant for trade statistics?
  - Does the Customs system check immediately for validity of codes (country, commodity, quantity, currency)?
  - Does the Customs system immediately do credibility checks of commodity prices?

- **Validation by Statistical unit**
  - What is the percentage of records with coding errors?
  - Do you do checks on values and unit-values (outliers, time series, checks against other data sources)?
Quality indicators related to Data Processing
“Quality reporting”

- Do you keep logs of all corrections?
  - Which corrections do you keep?
  - Do you keep the original data as well?
  - Is everything time-stamped.

- Do you publish meta-data which each data release?
  - Which data do you publish?
Documentation of the Data Processing System

- Procedures for code validation
- Procedures for value and quantity checking
- Editing procedures
- Estimation procedures
- Procedures for unit value checking, time series checking, checking of plausibility of value for commodity by trading partner