

# Regional Workshop on International Merchandise Trade Statistics

*Strengthening Data Compilation and Analytical Capacity*

11-13 September, 2017

Suzhou, China

## Agenda item 9: Data Processing



Workshop on IMTS  
Suzhou, 11-13 Sep 2017

United Nations  
Statistics Division



## 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

