SIMSTAT project

Micro-data exchange in the domain of trade in goods statistics

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ESS Vision 2020

- Challenge of staying relevant in a changing world
  - adoption of the ESS Vision 2020 by the European Statistical System Committee in May 2014

- Specific statements of the ESS Vision 2020
  - We will develop novel ways to share data to do our job more efficiently and to reduce burden on our respondents
  - We will benefit from exchange of (micro)data, while fully respecting statistical confidentiality
  - The exchange of confidential micro data will proceed where there is a clear business case for improving the quality or efficiency (...) and all pre-requisites have been satisfied
Core principles of microdata exchange

In order to elaborate the pre-requisites for exchanging confidential data, the ESSC adopted in February 2016 a set of core principles:

**Principle 1:** Access minimisation  
**Principle 2:** Purpose limitation  
**Principle 3:** Value added  
**Principle 4:** Data protection  
**Principle 5:** Clear responsibilities and rights  
**Principle 6:** Appropriate legal basis  
**Principle 7:** Transparency
Trade in goods statistics in the EU

**Extra-EU trade in goods statistics**
- Trade with non EU countries
- Based on **customs declarations**

**Intra-EU trade in goods statistics**
- Single Market in 1993
- Customs declarations replaced by **business surveys**
Current system for compiling intra-EU trade statistics (Intrastat)

- Minimum coverage
- Business survey
- Current data elements

Data on Exports

Trade in goods statistics at CN8 level

Data on Imports

20 May 2016
SIMSTAT principles

- Make available already existing data by enabling the exchange of micro-data on intra-EU exports among EU MS

- Each transaction reported in one Member State will serve as a data source for two Member States
  - first, for compiling the Intra-EU exports of the exporting country and,
  - second, for verifying and/or compiling the Intra-EU imports of the importing country

- Potential to reduce asymmetries
Minimum coverage
Business survey
Current data elements
Partner ID number
Country of origin

SIMSTAT

Data on Exports
Data on Imports

MANDATORY
Micro-data exchange
VOLUNTARY
Micro-data use

Trade in goods statistics at CN8 level

Eurostat

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Setting up of a pilot project

Can the exchanged data be used as a substitute for the nationally collected data?

Can a IT system be set up to exchange large volume of micro-data on a monthly basis in a timely manner?

- Project launched in June 2012:
  - Phase 1: Feasibility study for the micro-data exchange (June 2012 – Q2 2013)
  - Phase 2: Development of the system (Q2 2013 – Q2 2015)
  - Phase 3: Pilot testing, evaluation and reporting (Q2 2015 – Q2 2016)
Preparatory work – Statistics

- Content of the data sets to be exchanged
- Technical specifications, format
- Timetable for data exchange
- Data validation
- Data confidentiality
- Data analysis

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Preparatory work – IT

- Centralised hub-based system
- Data providers submit data to the Hub
- The Hub, after some operations, submits data to the data receivers
- Use of Common Communication Network (CCN) for data transmission
Pilot exchange of micro-data

- **20 Participating Member States**
  AT, BG, CZ, DE, DK, EE, EL, FI, FR, HR, IT, LT, LU, LV, MT, PL, PT, RO, SI and SK

- **Exchanged data**
  Intra-EU exports of goods collected under Intrastat system

- **Data for the reference period**
  January 2013 – August 2015, according to agreed timetable

- **Period of exchange**
  April – October 2015
Results of the pilot (1/3)

- Good coverage of traders and of trade values
- Good match of traders and their traded values
- Gain in additional information through mirror data
- "Small" MSs could benefit from the mirror data received from "big" MSs
- High comparability of data between neighbouring MSs
- Similar convergence time for revisions to a stable value
Results of the pilot (2/3)

Shortcomings

× Although the difference between imports and mirror exports at total level were rather low, there were considerable differences for individual Member States at less aggregated level.

× Member States could identify substantial asymmetries in bilateral trade and at product level.

× Problems regarding data consistency and breaks in time series at detailed level were detected.
Results of the pilot (3/3)

- The system fulfilled its task to transfer large data files in a secure way
- Demonstrated technical feasibility of the IT infrastructure
- Satisfactory accessibility, availability and performance
- Timely delivery of all files received
- Good performance of the portal with significant user-friendliness enhancements
- Further improvements of the IT system needed to help fully automate the micro-data exchange
Lessons learnt from the pilot

- The mirror exports data could be used effectively as a full or partial substitution for collected imports data.

- The use of mirror data could consequently reduce administrative burden on reporters on the imports side.

- Existing asymmetries were identified at detailed level

- Pilot exercise fulfilled its purpose and proved clearly that from a technical point of view the exchange of micro-data is feasible.
Additional elements

- **Quality enhancement potential**
  The availability of micro data at a very early stage in the process opens up the possibility to investigate at micro level the sources of **asymmetries**

- **Neutral impact on users of trade in goods statistics**
  No change in:
  - trade in goods statistical output
  - product or country breakdown
  - frequency or timeliness
Next steps

- Results of the pilot project will be presented and discussed at the upcoming meeting of the European Statistical System Committee (ESSC) on 18 May 2016.

- The ESSC is expected to give orientation for the future of the compilation process of the intra-EU trade statistics.

(This slide will be modified to reflect the decision of the ESSC)
Thank you for your attention