



BANK FOR INTERNATIONAL SETTLEMENTS



EUROPEAN CENTRAL BANK
EUROSYSTEM

The challenges posed by microdata and how standards like SDMX and XBRL can help

ECB & BIS, XBRL Europe Day, 2017-06-07

What are microdata?

Micro data vs macro data

Aggregated data: data aggregates that have a low likelihood of identification of individual reporting units, such as those found in traditional datasets (e.g., those covered by most of the DGI-2 recommendations).

Disaggregated data: data below the level of aggregated data and with a higher likelihood of identifying individual reporting units than in the aggregated data.

Micro data: data on individual reporting units or specific transactions/instruments, which in most cases allow the identification of individual entities and therefore considered confidential. In addition, publicly available data on individual reporting units are considered non-confidential although they can still be subject to data sharing limitations due to commercial property rights.

Granular data: disaggregated data and micro data.

N.B.: [Definitions of the Inter-Agency Group on Economic and Financial Statistics](#)

Motivation

Reduce reporting burden

- BIS and ECB gets data from central banks and international organizations (primarily in SDMX)
- Ease the reporting burden by providing support and tools when needed (e.g. Excel reporting templates)
- Some reporters already use XBRL when providing data to organizations such as EBA and would like to be able to use the same format when sending the similar data to other organizations
- Some reporters would like to use XBRL for some of the new data collection exercises
- Interested in XBRL/SDMX mapping tools, to support more input/output formats

Common data model and data dictionary

- Define a data model suitable to represent both microdata and aggregated data (technical building blocks)
- Define a data dictionary on top of that data model (statistical building blocks)
- Base statistical applications and processes on the common data model and data dictionary (i.e. metadata-driven systems)

Gap analysis and expected
changes to the SDMX standards

Towards SDMX 2020: A few selected items

- Extending code lists
- Adding process metadata
- Supporting multiple measures
- Setting code validity

Current projects

BIS

- Common data model and data dictionary
 - Metadata maintained using Fusion Registry
 - In line with the SDMX information model but sufficiently generic
 - Intend to fund the development of changes that improve the definition of the data model for aggregated data and microdata and the maintenance of the common data dictionary
 - Several improvements planned for 2017-2018

ECB

- Mapping SDMX-XBRL

The ECB together with Banco de España will create a mapping between the two standards the SDMX and the Data Point Model

- Guidelines to the use of SDMX for micro-data

The ECB together with the Bundesbank will create SDMX DSD guidelines for micro data (the Anacredit experience is the main driving force behind this project)