



SDMX as a standard for data sharing / standardization

Bruno Tissot

Head of Statistics and Research Support, BIS & Head of the Secretariat of the Irving Fisher Committee on Central Bank Statistics

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The views expressed are those of the author and do not necessarily reflect those of the BIS or the IFC.

Overview

- I. The Statistical Data and Metadata Exchange (SDMX) standard**
- II. SDMX, a key support for official statistics**
- III. Priorities looking forward**

I. The SDMX standard - Introduction

- **Vision of SDMX**

- A **broad** statistician / economist / IT perspective
- Support **production/exchange** of statistics for public good
- Useful perspective from **central banks** as data producers & users

- **Many achievements in the past 2 decades**

- **ISO standard**, role of metadata, free / open-source tools
- Increased number of Data Structure Definition (**DSDs**)
- **International** cooperation & data exchanges...
- Governance & **trust** vs "fake news" / "alternative" sources

- **Still important challenges**

- Complexity, costs, outreach...
- Interaction IT – Statistics – Analysis – Policy-making...

I. The SDMX standard – the new 3.0 version

- **Large undertaking – up to almost half a million USD**
 - Strong international cooperation
 - Common financing by IOs' sponsors, plus internal resources
 - Target: second half of 2021
- **Many improvements**
 - Simplification
 - **Micro data**
 - **Multiple values** per attributes & bi-temporality (key for nationality-based statistics developed at the BIS)
 - **New data sources**

II. A key element supporting Official Statistics

- **2013 Fundamental Principles of Official Statistics**
- **Main considerations**
 - **Critical role** of high-quality official statistics in analysis & policy decision-making
 - Essential public **confidence** in statistics
 - Need for effective **fundamental values** to govern statistical work
- **10 Principles**

II. A key element supporting Official Statistics (cont'd)

- **1. SDMX helps to compile and make available statistics of practical utility**
- **2. SDMX an ISO standard** with strict professional considerations for the collection, processing, storage, presentation of statistics
- **3. SDMX standard for metadata: present information on the sources, methods and procedures**
- **4. SDMX to support the dissemination of reference information:** helps building trust & reduces **misuse of statistics**
- **5. SDMX to deal with all types of data from all sources** eg surveys, administrative records

II. A key element supporting Official Statistics (cont'd)

- **6. Address data sharing needs** while preserving individual data confidentiality & ensuring use for statistical purposes
- **7. [SDMX.org](https://sdmx.org) website and information on development (on [GitHub](https://github.com)) made public as required for statistical systems' operations**
- **8. Common statistical concepts and sharing supports coordination among statistical agencies**
- **9. Use of international concepts, global DSDs, registries, tools promote the consistency and efficiency of statistical systems**
- **10. SDMX shows & triggers international statistical cooperation**

III. Priorities looking forward (i) Micro data

- **Several needs**

- Reconcile **different types** of data collections (eg supervisory data point model)
- **Micro-macro reconciliation** (eg needs post-GFC, Covid-19)
- Evidence-based **policy needs** access to granular information (eg distribution, inequalities)

- **Expected benefits**

- Contained **reporting burden** despite more data needs
- Enhanced statistical **production chain** as highlighted by Covid-19
- **Interoperability** with other standards used for micro-data, such as XBRL eXtensible Business Reporting Language)

III. Priorities looking forward (ii) Big data

- **New information sources**

- New formats eg geospatial
- Micro data: «financial big data»

- **Backbone for developing Big Data platforms**

- Key building block of ongoing projects in central banks, BIS
- Facilitates the development of capabilities in advanced analytics

III. Priorities looking forward (iii) Data sharing

- **Data sharing**

- Reduced reporting cost
- From the “push” to the “pull” mode using web services

- **Not enough: dealing with confidential data**

- Micro exchange
- Make use of (newly developed) global identifiers
- Confidentiality preservation tools

III. Priorities forward (iv) international statistical cooperation

- **SDMX already key in DGI work**

- **Rec 19** (International Data Cooperation and Communication)
- Timely standardised **transmission** of data through agreed formats
- **DSDs** established for several recommendations

- **Next framework for international cooperation in statistics**

- Enhancing **existing core** official statistics information, especially as regards timeliness, frequency and international comparability
- Addressing **emerging data needs** eg post Covid-19, climate

→ *Data sharing & SDMX can help on these 2 fronts*

III. Priorities (iv) international statistical cooperation (cont'd)

- **Revamped SDMX 3.0 will support:**

- Collecting **more granular** information on financial markets
- Better tapping into big, **“alternative” data**
- Enhancing the **global statistical infrastructure** eg data-sharing, LEI
- Better measuring non “traditional” statistical **new topics** underscored by Covid-19 (eg distribution issues, environment)
- Towards timely, more “automatised” **production** of official statistics

Thank you!!

Selected references

- [2020 Annual Report of the Irving Fisher Committee on Central Bank Statistics](#)
- [The Business Case for SDMX](#)
- [Progress Report of the SDMX sponsors on SDMX for the 52th session of the Statistical Commission, UN Economic and Social Council, December 2020](#)
- [Central banks' use of the SDMX standard, IFC Report, no 4](#)
- [Fundamental Principles of Official Statistics 2013/21](#)

Questions?

bruno.tissot@bis.org

