

Statistical Data Collection and Processing System MtS-ISL-SUD-SDNS

Jindra Ivanovová and Irena Zámečnicková, Czech National Bank

Key words: MtS-ISL-SUD-SDNS, Data Collecting, Data Processing, Metadata.

The Czech National Bank uses a sophisticated and full automated information system Metadata System (**MtS**) - Information Service (**ISL**) – Statistical and accounting database (**SUD**) - Data collection from non-banking subjects (**SDNS**) for data receiving and data processing. The System MtS-ISL-SUD-SDNS is general and universal and is used for collecting data of various character and purposes, especially for monetary and statistical purposes and financial market supervision.

The System MtS-ISL-SUD consists of three main subsystems;

- Metainformation System (**MtS**) represents the system basis. Reporting methodology is defined and created there. Created metadata are used by other system components.
- Information service (**ISL**) informs the respondent about methodology, ensures comprehensive data collection, performs data checking, informs the respondent about results of processing and sends reminders.
- Statistical and accounting database (**SUD**) contains its own database (data and metadata) and furthermore tools permitting end users or end applications data access into database.

The main features of MtS-ISL-SUD system are following:

- The system is general and exclusively controlled by metadata. This gives the system significant universality and also applicability to various types of statements, reports etc.
- The Metainformation system has brought a considerable move in working methods: e.g. the introduction of new statements or their changes do not need the programmer's participation but the participation of designer-methodologist, a specialist in business area qualified in the systems usage.
- Nearly full automation on the side of the CNB.
- The system universality, its long-term changelessness of basic rules has enabled to achieve a significant level of automation on the side of the reporting agent as well.
- The system is an integrated system for all statements and data.
- On the other hand it is a distributed system. For preparation and communication with the CNB the respondents, especially banks, use their own systems which were created on the basis of interface defined by the CNB.
- A high level of data security.

In the system there are two possibilities (channels) how to transmit statements. The first channel – **“EDI channel”** is used mainly by banks. The channel is based on Electronic Data Interchange (EDI) principles.

The second channel was built together with the Internet applications SDNS. This **“Internet channel”** is based on XML standards.

The Internet application SDNS enables the public to access MtS-ISL-SUD system metadata (<https://www.wsn.cz/ewi>). On this website methodologies of all business areas are presented. The application SDNS presents methodical information of financial reporting towards the CNB structured according to business areas and including further descriptive objects, especially a list of codes. The application permits respondents to type and check data and to send secured data to the CNB.

Nowadays the CNB has defined 151 statements from all business areas. The main business areas are banking, capital market, insurance industry, pension funds industry and credit unions as well.

Lately the financial reporting has tended to collect very detailed statements. Some of our responding agents transmitted nearly 500,000 rows in one statement. In compliance with this trend our system is under development to meet these requirements.