Financial data language and standards

ISO standards for financial services

**European Central Bank
Statistics Committee (STC)
Thematic Meeting**

**Malta
7th October 2016**

Outline

ISO standards for financial services

Reference data standards

Standardized data sets

ISO standards for financial services

Examples of transactions types covered are securities trade execution, matching, allocation, clearing and settlement, foreign exchange execution and settlement, reconciliation and reporting (both on holdings and activity), investment funds subscriptions, transfers and redemptions, corporate event and action notification and processing, instructions, advices and reconciliation reporting for cash payments, credit card interchange

Examples of general areas of security standards - PIN, Biometrics, Key management, PKI, Encryption, Cryptography, Tokenization

Standardization of financial messaging that supports exchanges or transport of data.
Examples: ISO 20022, credit card interchange messaging

Standardization on specific data elements through the usage of codes and identifiers. ISO/TC 68 has a long history with developing and maintaining reference data standards.

ISO/TC68 'Reference Data' Standards

ISO 6166   International Securities Identification Numbering System (ISIN)

ISO 10383 Codes for exchanges and market identification (MIC)

ISO 10962 Classification of Financial Instruments (CFI code)

 ISO 18774 Financial Instrument Short Name (FISN)

ISO 13616 International bank account number (IBAN)

ISO 18245 Retail financial services – Merchant category codes

ISO 9362 Business Identification Code (BIC)

ISO 4217 Codes for the representation of currencies and funds

ISO 17442 Financial Services – Legal Entity Identifier (LEI)

ISO 8109 Formats of Eurobonds

ISO 9109 Numbering of certificates

ISO 20275 Entity Legal Forms (ELF) – Publication TBD 2016

Reference data standards focus on the following important features – **persistence, uniqueness, reliability.**

These standards reflect, and are able to take advantage of, progress in technology, both in automation and data storage. The reference data identifier standards of today no longer rely on embedded intelligence on the entity or thing being identified, rather instead rely on related reference data records to contain information on the entity or thing being identified. This usage of meta-data enables much richer and more capable reference data repositories.

Strategic Review: Proposed Structure of ISO/TC 68 Committees and Groups

Reference Data SC	Information Exchange SC	FinTech Services TAG	Communications	Adhoc
• Identifiers, Classifiers, and Codes • Consistency of Data Records and Notations • Reference Models • Data Dictionaries and Repositories • Payment Domain Support • Identification of parties, identification and classification of payments instruments • Financial Instruments Structure and Processes (BIAN)	• Modelling • Financial Messaging • Formats/Syntax • Protocols • Application Program Interfaces (APIs) • Application of Semantics/Ontologies • Mobile Information • Common Definitions and Meanings and re-use Principles • Assessment of Process Reengineering on Opportunities for New Interchange Standards (example e-trade and supply chain finance)	• Emerging, Existing Technologies • Modelling • Message Syntax Languages • Blockchain Technology • Innovation Labs/Incubators • Ontologies and Semantics	• Newsletter • Brochures • Webinars • Speakers • Education • Stakeholder Engagement	Chairman's Advisory Group (CAG) Groups Formed By Resolution: • Standards Advisory Group (SAG) • Strategic Review

Security SC (SC2)		
-PKI -Encryption -Biometrics	-Cryptography -PIN -Physical Security	-ATM/POS -Firewalls/Internet Safety -Consumer Devices

Proposed Reference Data Sub-committee scope

The coverage of the Proposed Reference Data Financial Services sub-committee, taking into account the domain areas in scope from the Strategic Review topic of ISO/TC 68's future direction, are:
o   Identifiers, classifiers and codes
- o Entity – LEI, ELF, IBAN, BIC
- o Transaction – Unique Transaction Identifier - UTI (potential)
- o Instrument – ISIN, CFI, Merchant Category Codes, Currency, Unique Product Identifier – UPI (potential)
- o Commodities
- o Venue - MIC

o   Consistency of Data Records and Notations – List of data attributes supporting identifiers, classifiers and codes
o   Interoperability of concepts and definitions
o   Reference models
o   Data dictionaries and repositories – incorporating all reference data attributes in ISO 20022 Data Dictionary and Repository
o   Financial instruments structure and processes, ex., BIAN
o   Payments domain support, e.g., Identification of parties (payor, individual, corporate, financial institution, government, public authority)
o   Identification and classification of payment instruments (cash, cards, e-money, digital currencies, cheques, credit transfer and direct deposits)

Meaningful progress

Establishing this new sub-committee would bring together cross-industry experts to provide a deeper understanding of how particular standards are used and allow input from all sides of the industry on standards that are used by many parts.

Grouping standards together by type and function rather than by business domain, as the TC currently is structured, will result in a more coordinated standards coverage, development and review.

Data elements used in multiple standards, which now are documented with different notations and definitions, can be harmonized, insuring consistency among these reference data standards.

This structure also will allow ISO/TC 68 to better assess new standards requests and to promote and coordinate re-use of what currently exists with the ISO/TC 68 library.

Consistent approach

This is where the link is established with the financial messaging standards of ISO/TC 68, which also are proposed to receive focus in another new sub-committee for Information Exchange standards.

To deliver the goal of converging consistent and fit-for-purpose standards to support financial services, the attributes, enumerations and definitions from the data records of the reference data standards should become elements in the ISO 20022 data dictionary and model as a matter of course.

Establishing and maintaining this consistency will add further value to the ISO 20022 standard as the powerful industry-wide knowledge repository for financial services.

Focus on ISO 20022 'Data sets'

Models of business and transaction domains contain comprehensive sets of data elements reflecting these domains, focusing on financial transactions, as structured data.

The industry predominantly relies on the usage of financial messaging to support their businesses and operations.

These granular data elements can be used and leveraged as the basis of data sets that can be analyzed and can be searched for patterns.

Potential areas of interest currently covered by ISO 20022:

Securities finance including securities lending, capturing both the original and adjusted terms of these financings as well as the securities movements

Collateral management capturing increases/decreases in value, substitutions, in addition to the securities movements

Resulting value for stakeholders and users

Standards support and promote the reusability of data, within the same business and operational process and between processes that connect.

Standards help meet requirements from customers and other stakeholders and users, like analysts, statisticians and regulators.

Developed collaboratively, standards reduce the implementation and usage cost to industry, stakeholders and users.

All of this leads to better data quality and confidence in the data and the related transactions.

With clear data meaning and better data quality, more harmonized data models can be developed and maintained.