Standards at transactional and aggregated level

7th May 2014

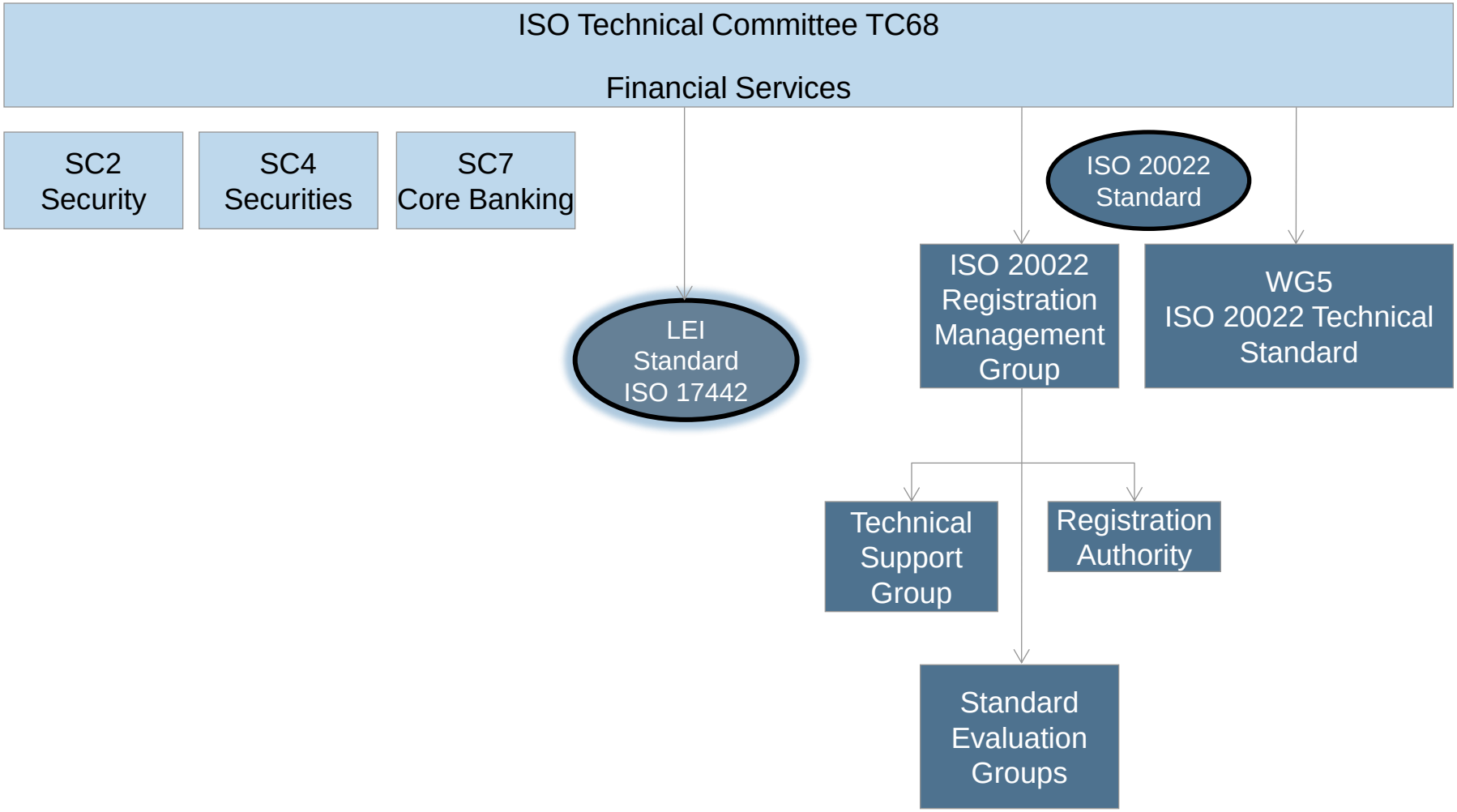
eSupervision Workshop, Rome

International Organization for Standardization

Overview

- The value, need and ability to capture transactions in a standard way in repositories as a foundation for regulatory analysis using the example of ISO 20022
- The value of and need for connecting the transactional and detailed-level data standards and models (ISO 20022, ACORD, FpML, FIBO, FIX) with regulatory or aggregated data standards (XBRL, SDMX, XML)
- First, a look at internationally developed data standards for financial services and the ISO 20022 standard

International Standards for Financial Services, ISO/TC68



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Standards Managed by ISO/TC68/SC2, Security

- ISO TC68/SC2 Financial Services, Security Published Standards
  - ISO 9564 Personal Identification Number (PIN) management and security
  - ISO 11568 Key management (retail)
  - ISO 13491 Secure cryptographic devices (retail)
  - ISO 13492 Key management related data element -- Application and usage of ISO 8583 data elements 53 and 96
  - ISO 15782 Certificate management for financial services (PKI)
  - ISO 16609 Requirements for message authentication using symmetric techniques
  - ISO 21188 Public key infrastructure management for financial services - Practices and policy framework

Technical Reports

ISO 13569 Information security guidelines

ISO 14742 Recommendations on cryptographic algorithms and their use

ISO 19092 Biometrics

ISO 19038 Banking and related financial services -- Triple Data Encryption Algorithm (DEA) modes of operation

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Standards Managed by ISO/TC68/SC4, Securities

- ISO TC68/SC4 Securities and Related Financial Instruments Published Standards
  - ISO 6166, International Securities Identification Numbering System (ISIN)
  - ISO 10383 Codes for exchanges and market identification (MIC)
  - ISO 6536 Bank operations – Standard scheme for drawing lists
  - ISO 8109 Format of Eurobonds
  - ISO 8532 Format for transmission of certificate numbers
  - ISO 9019 Numbering of certificates
  - ISO 9144 Optical character recognition line – Position and structure
  - ISO 15022 Scheme for messages

  Under revision or in development
  - ISO 10962 Classification of Financial Instruments (CFI code) – under revision
  - ISO 18774 Financial Instrument Short Name (FISN) – in development
  - ISO 16372 Issuer and Guarantor Identifier "IGI" *(Former Identification of Business Entities IBEI)* – on hold pending implementation of ISO 17442, Legal Entity Identifier
  - ISO 15022 Scheme for messages (annual maintenance of messages)

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Standards Managed by ISO/TC68/SC7, Core Banking

- ISO TC68/SC7 Financial Services, Core Banking Published Standards
  - ISO 8583 Financial transaction card originated messages
  - ISO 9992 Messages between the integrated circuit card and the card accepting device
  - ISO 11649 Structured creditor reference to remittance information
  - ISO 13616 International bank account number (IBAN)
  - ISO 18245 Retail financial services – Merchant category codes

- Under revision or in development
  - ISO 1004 Magnetic ink character recognition (MICR) – under revision
  - ISO 12812 Mobile Banking / Payments – in development
  - ISO 9372 Business Identification Code (BIC) – under revision
  - ISO 4217 Codes for the representation of currencies and funds – under revision

Standards Managed by ISO/TC68

- ISO 20022, Universal financial industry message scheme
  - ISO 20022 consists of the following parts:
    - *Part 1: Metamodel*
    - *Part 2: UML profile*
    - *Part 3: Modelling*
    - *Part 4: XML Schema generation*
    - *Part 5: Reverse engineering*
    - *Part 6: Message transport characteristics*
    - *Part 7: Registration*
    - *Part 8: ASN.1 generation*

- ISO 17442, Financial Services – Legal Entity Identifier (LEI)

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The ISO 20022 Standard

- ISO 20022 is a standard process for Financial Services focused on business process and related information
- The standard covers the Financial Services industry, not just Securities
- Industry-led approval and development processes
- Has been used as a basis for XML based message syntax with the provision for alternative syntax adoption
- Uses industry standard modeling and messaging tools

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Why is ISO 20022 Important?

- In 2010, existing ISO 15022 Securities messages became available for use in ISO 20022 and have been adopted in developments such as T2S
- ISO 20022 is a powerful industry-wide knowledge repository for financial services
- This standard business repository and message catalogue allows interoperability among industries/business processes and the standards which support these industries/processes (for example, the securities processing chain from execution to asset servicing, across asset classes)
- In May 2013, with the new edition of the ISO 20022 standard, the ISO 20022 meta-model itself became available for download from the iso20022.org site and can be used to develop data models and frameworks
- Access information regarding ISO 20022, including the repository, at www.iso20022.org
- Although the primary goal of ISO 20022 is not the messages, the messages that the industry uses to conduct its business contain transactional data that regulators are looking to collect and analyze

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Interoperability – XBRL and ISO 20022

- An XBRL corporate actions taxonomy, aligned with the ISO 20022 repository elements for corporate actions announcement information, was built in 2010. The terms of a corporate action event (dates, rates, prices, offering company, etc.) can be tagged or electronically captured, identifying key source data of these corporate events.

- XBRL was chosen as the standard to digitize corporate action event announcement information given its current use by companies to tag and file financial statements and reports, which traditionally have been prepared and distributed as paper documents.

- The data ‘tags’ and elements in the XBRL corporate actions taxonomy are aligned with the ISO 20022 elements for corporate actions event announcements, permitting XBRL-tagged data to be readily converted into ISO 20022 messages. ISO 20022 is the standard used for corporate actions processing by securities infrastructures, intermediaries and investors.

- Further leveraging of XBRL and ISO 20022 could create increased transparency for investors in the area of announcement of corporate meetings, resolution details and proxies and the dissemination of official meeting resolution results.

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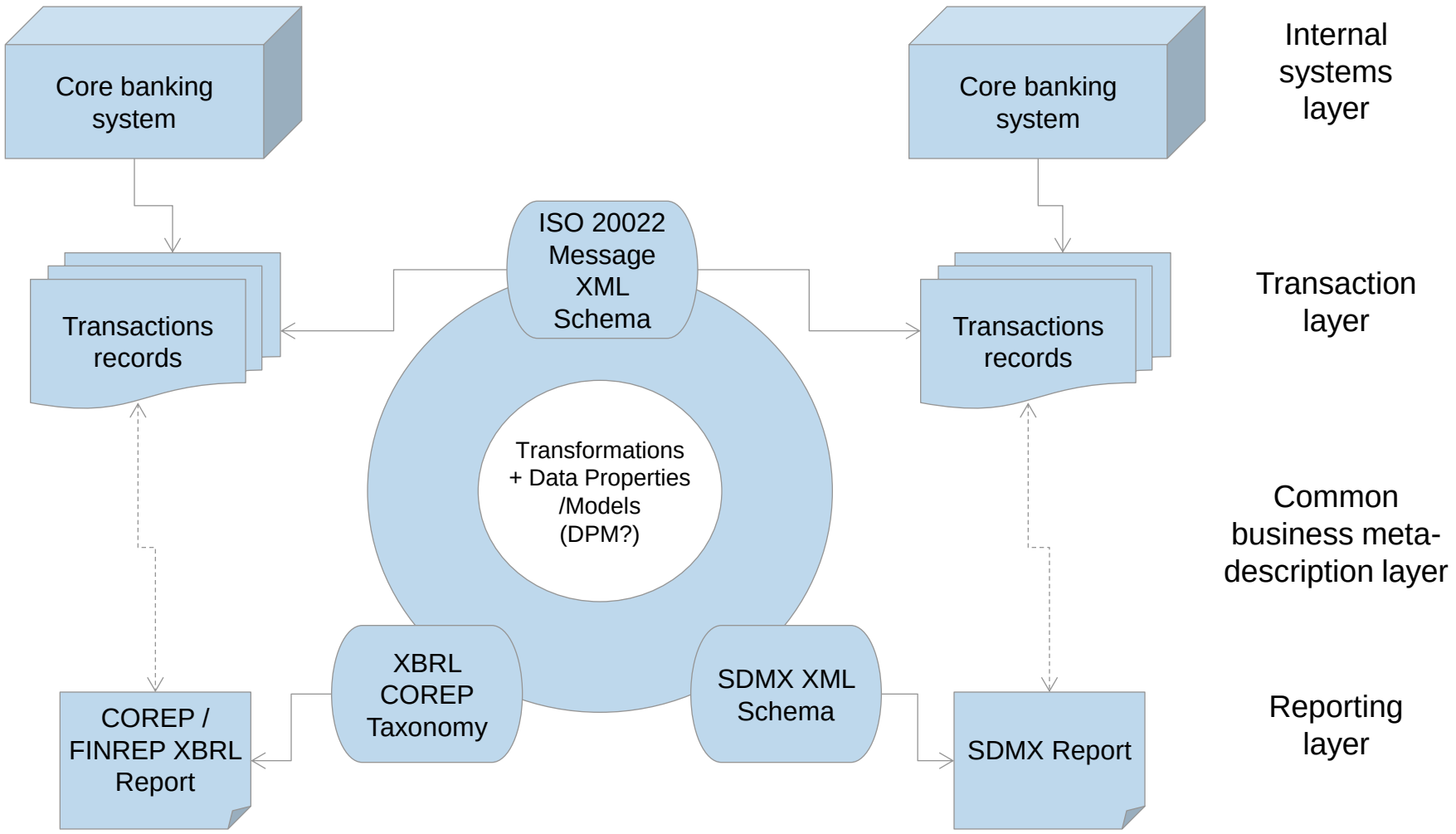
Interoperability – Example based on COREP FINREP & SDMX



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Appendix: What is ISO?

- International Organization for Standardization, located in Geneva, Switzerland, founded in 1947
- Develops international standards through worldwide network of national standards bodies
- Work performed within Technical Committees (TCs), their subcommittees (SCs) and working groups (WGs)
- 164* National Standards Bodies are represented within the ISO Framework; G20 representatives have ISO affiliation with their national standards bodies
- ISO develops standards in many areas including technology, product safety, energy management. More than 19,500* published standards in ISO collection.
- The ISO standards development process is carried out through experts participating in committees and working groups.
- Agreement/approval of a standard reflects a double layer of consensus – first within the industry (market players) and then across ISO member countries.
- Formal governance/rules established in “ISO Directives”
  - www.iso.org/directives

* * ISO in figures as of 31st December 2012

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ISO Membership Structure

- Country Members
- Through national standards bodies
- Two levels of country membership
  - P (participating)
  - O (observing)
- Liaison Organizations (external)
- International or broadly based regional organizations working or interested in similar or related fields
- Three liaison levels
  - A (to participate at the TC or SC levels and their working groups (WGs))
  - B (to receive information about the TC, SCs and/or their WGs. Mainly for intergovernmental organizations)
  - D (to participate at the WG level only)

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