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Improving transparency in financial and business reporting — Harmonization topics —

Part 1: European data point methodology for supervisory reporting

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by the European Committee for Standardization (CEN) (as CWA XBRL) and was adopted with the following modifications by Technical Committee ISO/TC 68, *Financial services*, Subcommittee SC 9, *Information exchange for financial services*.

— minor editorial change to Clause 1;

— Clause 2, Normative references, and Clause 3, Terms and definitions, added;

— minor editorial changes.

A list of all parts in the ISO 5116 series can be found on the ISO website.

This document uses different verbal forms from those listed in the ISO/IEC Directives, Part 2. The verbal forms for this document are detailed in the Introduction.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

0.1 General

General Data Point Modelling is a data oriented methodical procedure to create semantic and multidimensional models that reflect the reporting requirements of European supervisors. Reporting requirements are defined by regulations and represented in tables. The first Data Point Models (DPM) were developed in 2009 to describe the data in a redundancy-free, consistent and unambiguous way.

Semantic models are used to ease the communication between domain experts and IT specialists. Whereas formal models are defined for technical purposes, semantic models are defined from a viewpoint of a domain user. They can contain definitions, documentations and explanations. Domain experts decide which objects are relevant and which relations exists between the objects of the model. Semantic models are independent of any physical implementation. The characteristic of multidimensional models is the division of data in quantitative and qualitative aspects.

In general, the parameters that are measured in figures (also known as metrics) are quantitative aspects that often build the basis of data analyses. Qualitative aspects provide a closer description for these parameters. Data objects based on multidimensional models are referred to as “facts”. Fact attributes are the quantitative aspects of a fact, and dimensions relate to the qualitative aspects of a fact.

A Data Point Model reflects semantic and multidimensional aspects of data modelling. Data Point Models should enhance the understanding of the data requirements for the reporting entities by providing information on correlations that exceed the information given only by table structures. The main challenge in data modelling is the identification of implicit information given in tables and its transformation into a logical model. Data Point Models are typically created by specialists in supervision who are highly skilled in understanding supervisory reporting frameworks.

This document intends to support the communication between supervisory experts and IT experts by introducing the concept of data point modelling and its underlying terms. Data Point Models remain as semantic models, at first technologically neutral, but they are used by IT specialists: (1) for generating data formats for the reporting process; or (2) for designing multidimensional as well as relational database structures for the analysis of supervisory data.

This guidance is in the form of notes in association with the pertaining requirements clause and uses the terms “MUST” (strong recommendation), “SHOULD” (recommendation) and “MAY” (possibility). Organizations wishing to implement this document would be expected to consider all recommendations where the terms “MUST” and “SHOULD” are used.

0.2 Objective

A Data Point Model consists of objects that reflect the supervisory metadata and their relations among each other that can be communicated and understood by computers. The objects of a data point model described in this document facilitate the ease of understanding of the data structure for technicians, and reflects the definitions, rules and constraints to be met when using a Data Point Model as the basis for the generation of a data format, or as the basis for analytical purposes.

0.3 Target audience

This document is being created to support Information Technology (IT) experts in the transfer of content from regulatory reporting to IT systems. It assumes that the reader has a working knowledge of multidimensional models. Furthermore, basic knowledge about Business Intelligence is assumed for understanding the rules to be followed when designing a multidimensional database structure for data warehouses.

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Part 1: European data point methodology for supervisory reporting

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1 Scope

This document defines the Data Point Methodology for the creation of Data Point Models in the context of European supervisory reporting. Data Point Models are published by a European supervisory authority. To reflect the defined structures in a machine-readable form, they can be accompanied by an XBRL taxonomy. It is also possible to extend the described methodology to other environments.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

4 Data Point metamodel

4.1 General

The Data Point metamodel provides: (1) the components for the construction of a formal model that describes sets of DataPoints relevant to European supervisory reporting frameworks; (2) definitions, rules and constraints on how to combine these components; and (3) the meaning (semantic) of the components and relations. Similar to a model construction kit for toys, it provides the modelling principles with all the characteristics available for use by the modeller. A UML class diagram is used to provide the syntax and semantic to define the metamodel for data points by showing the relevant classes and their attributes.

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