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**Improving transparency in
financial and business reporting —
Harmonization topics —**

**Part 2:
Guidelines for data point modelling**

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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 002) 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, 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.

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.

Introduction

0.1 General

The purpose of this document is to support supervisory experts in the creation of a Data Point Model (DPM). According to the definition of the European Banking Authority (EBA), a DPM “is a structured formal representation of the data [...], identifying all the business concepts and its relations, as well as validation rules, oriented to all kinds of implementers.”¹⁾

The underlying rules for the creation of such methods were initially introduced by the Eurofiling Initiative and developed further by the European Insurance and Occupational Pensions Authority (EIOPA). The main objective of data point modelling, the process of creating a DPM, is as follows: “[it] should help to produce a better understanding of the legal background to the prudential reporting data and make data analysis much easier for both the institutions and regulators”²⁾.

Further goals are to prevent redundancies, lower maintenance efforts and, in general, to facilitate working with national extensions on the European agreed-upon data set to facilitate the descriptions of requirements that are sharable across national legislations. It is a requirement to have all the information collected by the national supervisory agencies, particularly in Europe, transformed into the same data structure with the same quality in order to be able to carry out standardized analysis of the data across Europe. The current implementations are not able to meet these European requirements for supervision “to achieve higher quality and better comparability of data”³⁾. The main reasons for this are the differences between the data definitions and the data formats of the various national supervisory agencies, making comparison of reported data virtually impossible.

0.2 Objective

The aim to harmonize the European supervisory reporting is to be able to carry out more comprehensive analysis and an increase of comparability of data. Since the supervisory agencies are already acquainted with the representation of regulations specified in laws, this document is going to introduce the reader to the concept of Data Point modelling methodology, as well as to its main terms and definitions that will enable you to create Data Point Models that contain “all the relevant technical specifications necessary for developing an IT reporting format” on your own.

0.3 Target audience

In general, as a banking supervisor you are responsible for communicating with Information Technology (IT) experts in order to support the transfer of the essence of regulatory reporting to IT systems. In 2009, the Eurofiling Initiative published the concept of Data Point modelling. Structures of data represented in supervisory tables, as well as underlying laws and guidelines, were defined in order to enable the interpretation of the reporting information by IT applications. IT specialists are responsible for the development of software. However, most of the time they do not have the special business knowledge needed to gather reporting requirements from various sources, such as legal texts like Solvency Regulations and National Banking Acts, in order to build a flawless system. Therefore, the task of creating a DPM is assigned to you.

This document introduces the basic principles deemed necessary in the modelling process. On the basis of the explanations given in this document, you will be able to provide prerequisites for deriving data formats on the basis of a DPM, as well as setting up a powerful data warehouse. This implies that the model is published in a format that is understood by both parties involved in transforming legislation into a model: business experts and IT specialists. The topics regarding supervisory reporting are kept short and limited to the content relevant for this document. The idea is to convey the creation of the Data Point Model to you, as you are a supervisor with analytical capabilities and personal interest in this topic. No special IT knowledge is expected. The first sections will give you an overview on the required IT knowledge.

1) EBA (2011a), p.22

2) EBA (2011a), p.30

3) EBA (2011a), p.29

National banking supervisors have a mandate to evaluate the financial situation of financial institutions in their country. To be able to perform the necessary analytics, financial data is required from these institutions. The requirements are described in the form of texts and tables of data. To make a comprehensive model from these texts and tables, a model is being created to enable IT support in communicating and storing the necessary data. A common problem with the National Supervisory Authorities (NSAs) is that IT staff has little financial background and financial specialists have little IT background. This makes data modelling a problematic area, as both specialities are needed. This document is aimed at providing the tools and knowledge of creating a DPM by the financial specialists. The result, a model, can be perfected by IT staff later in the process.

Improving transparency in financial and business reporting — Harmonization topics —

Part 2: Guidelines for data point modelling

1 Scope

This document provides guidelines for data point modelling for supervising experts. The main body consists of four sections. The interrogative form helps in choosing which section may best answer your question and lead you to a good understanding of the subject matter.

After this first introductory section and the section containing terms and definitions, the main part starts to provide basic knowledge about different types of data models and data modelling approaches. The first and the second sections provide an overview of data models in general, in contrast to the third section that highlights the necessity of data modelling for supervisory data. This third section draws on the objectives and background information of the preceding sections. Furthermore, a paragraph classifies the Data Point Model introduced by the Eurofiling Initiative and elaborated by EIOPA and EBA, where many new terms related to DPM are introduced. Another paragraph explains the areas of application for the DPM. The third section concludes with a paragraph introducing a subset of the technical constraints that need to be considered in the creation process of the DPM. The fourth section gives step-by-step instructions on how to create a DPM. The paper concludes with remarks on the progress achieved so far, and provides an outlook on the software that is being developed at the moment to support you during the creation process.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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 <https://www.electropedia.org/>

NOTE The terms and definitions used in connection with Data Point modelling are inspired by vocabulary already known through their use in describing multidimensional databases and data warehouses. IT specialists originally introduced these terms. However, for an understanding and creation of Data Point Models, they are now established in the language of business specialists as well.

3.1

data point

combination of quantitative and qualitative aspects to describe a reportable information

3.2

default member

specific element of a dimension which is applied when a dimension is not explicitly associated to a Data Point