XBRL Filing Rules Manual

Electronic Prudential Reporting System

ABU DHABI GLOBAL MARKET
سوق أبوظبي العالمي

1 Contents

2 Definitions

Term	Definition
ADGM	Abu Dhabi Global Market
CSV	Comma Separated Values
EPRS	Electronic Prudential Reporting System
Filing	The set of data a firm is required to submit to meet a prudential reporting requirement.
Firm	A firm can refer to an individual entity or the group as a whole. A firm has a unique ADGM Registration Authority number.
FSRA	Financial Services Regulatory Authority
FSRA XBRL Taxonomy	An XBRL taxonomy defines the FSRA's reporting data requirements. Filings are validated against the FSRA's taxonomy as part of the EPRS filing process.
Modules (taxonomy entry points)	The FSRA taxonomy is divided into modules e.g. FINREP, COREP and more. Firms submit filings for a specific module (and version). Each filing will be validated against the definitions and business rules for that module.
Prudential Category	The PRU Rulebook defines a framework of applicable prudential rules which are divided into several categories. Each firm is assigned a category based on the activities it is authorised to perform.
Taxonomy Package	Zip archive which contains a taxonomy and some metadata about that taxonomy.
XBRL	eXtensible Business Reporting Language

3 References

The following documents are referenced by this document and may be useful for the reader.

Reference	Full Name	Version / Date
EBA XBRL Filing Rules	EBA XBRL Filing Rules	4.1 2015-08-11
EBA DPM	Representation in XBRL of the Data Point Model (http://www.eba.europa.eu/documents/10180/632822/EBA+Architecture+for+XBRL+representation+of+DPM.pdf)	2014-03-16
EFM	EDGAR Filer Manual U.S. Securities and Exchange Commission (Volume II)	41 2017-03
FRIS	Financial Reporting Instance Standards 1.0 (http://www.xbrl.org/technical/guidance/FRIS-PWD-2004-11-14.htm)	1.0 2004-11-14
GFM	Global Filing Manual for XBRL (Interoperable Taxonomy Architecture Project, part of IFRS)	2011-04-19
IEEE754	IEEE Standard for Floating Point Arithmetic, IEEE Std 754-2008 (http://standards.ieee.org/findstds/standard/754-2008.html)	754-2008
RFC2119	Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997. (http://www.rfc-base.org/rfc2119.html)	RFC 2119 1997-03

4 Introduction

The eXtensible Business Reporting Language (XBRL) specification provides an international standard for financial reporting. It is used by regulators in a number of countries to collect financial reports from a variety of entities, such as banks or companies.

This XBRL Filing Rules Manual is based on the requirements that the European Banking Authority (EBA) outline in their equivalent document, the EBA XBRL Filing Rules. The reader might also find the EBA Architecture design document useful. [EBA DPM]

4.1 Intended Audience

This Manual is primarily aimed at technical staff responsible for preparation or submission of XBRL instance files to the Electronic Prudential Reporting System. The document will assume that the reader has a working knowledge of XML and XBRL, and in particular the XBRL 2.1 and XBRL Dimensions 1.0 Specifications.

4.2 Use of Language

The use of language in this document follows that specified in [RFC 2119], in summary:

The use of “MUST” implies an obligation, and the preparation of instance files not following these rules will generally result in rejection of the instance file.

The use of “SHOULD” implies an indication of preference or best practice, but also a degree of tolerance, following the principle of “comply or explain”). The rule must be respected unless there are good reasons not to do so. Failure to follow the rule will not result in rejection of an instance file by ADGM.

The use of “MAY” implies permission, and describes actions that can be taken or constructs that can be used, but that are not required. Utilising these options will not result in rejection of an instance file.

XML attribute names are preceded by the "@" character in this document, as in XPath syntax.

5 Filing syntax rules

5.1 File naming

It is common practice is to use the .xbrl extension for instance documents, the .csv extension for comma-separated value files and the .xlsm extension for macro-enabled workbooks.

A firm can submit a filing with any name subject to the following restrictions:

1. Cannot be longer than 128 characters

2. Must not contain the following special characters: ~ # % & * { } \ : < > ? / + | ”

5.2 Character encoding of XBRL instance documents

The XML and XBRL specifications place no restrictions on the character encodings that may be used in instance documents. In order to avoid using a character encoding that is not supported by a receiving processor, all instances must use the UTF-8 character encoding (regardless of with or without byte order mark).

XBRL instance documents MUST use "UTF-8" encoding. [GFM11, p. 11]

5.3 Taxonomy entry point selection

A taxonomy is loaded through a reference to one or more URLs. Although technically a user can reference any file in the taxonomy, a taxonomy publisher will typically nominate specific URLs which are intended to be referenced by users of the taxonomy. These URLs are called entry points, and allow users to import the correct modules from the taxonomy, with different modules including different templates and different associated validation rules.

The FSRA taxonomy defines multiple specific entry points ("modules"), suitable for different reports. The taxonomy also contains other XML schemas, these are not to be treated as entry points. Through the 'filing indicators' it is communicated which tables are reported in an instance.

(a) **Reporting entities MUST reference only one entry point schema ("module", link:schemaRef element), as specified in the applicable taxonomy, per XBRL instance.**

(b) **The schemaRef element MUST refer to a URL appropriate to the module and the reference date of an instance, drawn from the list of entry points published by the FSRA.**

5.4 Filing indicators

Each reported fact in a filing is assigned to one or more reporting units (typically "templates") of the specific domain of reporting.

A filing indicator element (filingIndicator), grouped (potentially with other such elements) within a containing element (fIndicators), containing a code associated with a particular reporting unit, is used to indicate the intention of a reporter to report that reporting unit, or to indicate the intention *not* to report that reporting unit (see example under the heading "Filing indicator examples" for illustration). Filing indicators also trigger the appropriate taxonomy formulae checks. Missing filing indicators can lead to inconsistencies because facts for unindicated reporting units might not be validated.

(a) **Reported XBRL instances MUST include appropriate positive (i.e. either with @find:filed="true" or without @find:filed attribute) filing indicator elements to express which reporting units ("templates") ARE intended to be reported in the instance.**

(b) **Instances MAY include appropriate negative (i.e. with @find:filed="false") filing indicator elements indicating reporting units which are intended NOT to be reported in the instance.**

(c) **Negative filing indicators MUST be included when a reporting unit is deliberately not reported[1] which is potentially expected by the FSRA to be contained in that instance**

[1] For which it is actually legitimate to not report definite values (this is not the case for all reporting units).

(e.g. due to the reporter having no relevant transactions or positions to report, or on that occasion falling outside a relevant threshold for the reporting of the unit), in order to express the intention of the reporter not to report definite values for said template.

(d) The context referenced by the filing indicator elements MUST NOT contain xbrli:segment or xbrli:scenario elements.

Selected example scenarios:

Scenario	**@find:filed attribute of filing indicator for template**	**Causes rejection**
A template is included in the reported instance with facts	true / absent	No
A template is included in the reported instance, but no associated facts are *explicitly* reported (i.e. included in the XBRL instance).	true	No (all facts for template may be assumed to be zero, see section 5.5)
A template is explicitly *not* reported in the instance due to a. reporter having no relevant transactions or positions to report b. on that occasion falling outside a relevant threshold for the reporting of the unit	false	No
Fact values for a template are reported, at least some of which are not also part of another template which has a positive filing indicator	false	Yes (violation of rule 5.4.1)
A template is not reported, but facts "appearing on that template" *are* reported, they are all contained in other template(s) which *are* indicated as reported in the instance	false	No (see section 5.4.1)

Scenario	@find:filed attribute of filing indicator for template	Causes rejection
A template is reported. Multiple filing indicators with the same code are included in the instance.	n/a	Yes (violation of rule 5.4.1)

5.4.1 Multiple filing indicators for the same reporting unit

There is no benefit in filing several filing indicators for the same reporting unit. Inconsistent occurrences might occur (different values of @find:filed attribute).

Reported XBRL instances MUST contain only one filing indicator element for a given reporting unit ("template").

5.4.2 Filing indicators in several tuples

Reporting filing indicator elements spread across several separate fIndicators tuples is a more complex approach than using a single containing element, and is likely to be more complex to handle by receivers.

However this construction may be useful for generating large instances (generation in a single pass or *streaming*), by allowing e.g. a tuple containing a single filing indicator to immediately precede (or follow) the data items for each reporting unit.

For flexibility, reported XBRL instances MAY include different filing indicators in several separate fIndicators tuple elements, for simplicity this SHOULD in general be avoided where not necessary.

5.4.3 Filing indicator codes

The values of filing indicators to be used are indicated by label resources associated with the tables in the XBRL taxonomy. The value used should be exactly as indicated.

The values of filing indicators MUST only be those given by the label resources with the role http://www.eurofiling.info/xbrl/role/filing-indicator-code applied to the relevant tables in

the XBRL taxonomy[2] for that reporting module (entry point). Filing indicator values must be formatted correctly (for example including any underscore characters).

5.5 Implication of no facts for an indicated template

If a positive filing indicator is given in the XBRL instance, appropriate consistency checks may be processed by the recipients' reporting system. If no facts appear for an indicated template, the filing may well be rejected because the system requires an appropriate, coherent set of fact values for the checks.

If there are no facts reported that match a template indicated with a positive filing indicator, this conveys that the template is intended to be explicitly reported and every cell on that template may be considered (i.e. when applying validation checks) as equivalent to zero (for numeric value) or blank (for non-numeric), not that the template as a whole is intended to be unreported[3]. In practice, this is unlikely to be the intent of a filer, and may indicate an error in instance preparation.

(a) Reported XBRL instances MUST include appropriate positive filing indicator elements to express which reporting units ("templates") are intended to be reported in the instance

(b) Reported XBRL instances MUST NOT include positive filing indicator elements indicating a reporting unit is filed (i.e. @find:filed=true, or no @find:filed attribute) for reporting units which are NOT intended to be reported in the instance.

5.5.1 No facts for non-indicated templates

Reported XBRL instances MUST NOT include business facts which are not contained in any of the reporting units ("templates") indicated by filing indicators as reported.

Note: A single fact may notionally appear in several reporting units ("templates") - i.e. cells from several templates may represent the same data item, which would be transmitted as just a single fact. It may be the case that only some of these templates are reported in an instance, and others are not. In these situations the presence of such a fact which is part of a reported template but which would also be part of an unreported template is NOT a breach of these rules – i.e. they do not require that all templates containing an reported fact are indicated as reported, just that all reported facts appear in at least one template which is indicated as reported.

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[2] N.B. equivalent information is available in the EBA DPM Database.

[3] Which would be indicated with a *negative* filing indicator – and would indicate that any facts associated to the reporting unit (which are not anyway reported in the instance as part of another reporting unit with an associated positive filing indicator) are to be considered "unknown"

5.6 Valid XML-XBRL

In order to increase the likelihood that instance documents pass validation, filers must validate their compliance with the XBRL 2.1 and Dimensional 1.0 specification prior to submission.

Instance documents MUST be XBRL 2.1 and XBRL Dimensions 1.0 valid. [EFM11, p. 6-8]

5.7 Valid according to the defined business rules

XBRL allows the definition of business validation rules which can be discovered by XBRL software when opening the respective module referenced in the instance document. These business validation rules are applied on the content of the instance document to check the data quality.

Instance documents MUST be valid with regards to the validation rules as defined in the taxonomy (using XBRL formula), and discoverable from the referenced entry point, with the exception of any validation rules indicated as either deactivated or not mandatory to comply with in material published by the FSRA.

5.8 Taxonomy extensions by reporters

XBRL Taxonomies can be extended by anybody with the proper technical knowledge. Filings to the FSRA are 'closed form' i.e. all data points allowed by the regulator are in the taxonomy. There can be no extension of the taxonomy by reporters to report more (or less) data points to the supervisor.

Instances MUST reference only the taxonomy entry points specified by the FSRA (i.e. reporters MUST NOT reference their own extension taxonomies).

5.9 Completeness of the instance

In case corrections are needed on filings that already have been sent, it is required to resubmit the complete filing, rather than partial data with just the corrected facts. Non-complete submissions could lead to invalid instance documents (according to either XBRL 2.1, XDT 1.0 or appropriate Formulae), might raise conflicts with already processed data in the reporting system of the receiver, and may lead to significant errors if sender and receiver disagree as to the list and sequence of historical submissions.

Instances MUST contain the full report, even in the case of resubmission of an amendment – no content/values from previous instances may be assumed.

5.10 Standalone Document Declaration

The standalone document declaration in the XML declaration (e.g.: <?xml version="1.0" encoding="UTF-8" standalone="yes" ?> or <?xml version="1.0" encoding="UTF-8" standalone="no" ?>) is only relevant for XML documents using a DTD. This information has no meaning for XBRL instances.

XBRL instance documents SHOULD NOT use the XML standalone declaration.

5.11 XML SchemaLocation elements

@xsd:schemaLocation and @xsd:noNamespaceSchemaLocation are attributes defined in the XML Schema specification that are used to indicate where the schema to be applied to the XML document may be found. Since the XML Schema to be used in XBRL instances is defined by the link:schemaRef element, this attribute may introduce ambiguity.

@xsd:schemaLocation or @xsd:noNamespaceSchemaLocation MUST NOT be used.

5.12 XInclude Specification

The XInclude specification provides a way to embed an XML document in another one, by using xi:include elements. This possibility is rarely supported by XBRL processors.

XBRL instance documents MUST NOT use the XInclude specification (xi:include element).

6 Instance syntax rules

6.1 The existence of xml:base is not permitted

XBRL processors interpret this attribute differently, and there is no semantic need for this attribute.

XML-XBRL: The attribute xml:base may be inserted in XML documents to specify a base URI other than the base URI of the document or external entity.

The attribute @xml:base MUST NOT appear in any instance document. [EFM, p. 6-7]

6.2 The absolute URL has to be stated for the link:schemaRef element

The taxonomy which is used for an XBRL report is identified by the URL(s) referenced by link:schemaRef elements. Although it is often convenient to work with local copies of the relevant taxonomies, it is important that link:schemaRef elements resolve to the published entry point locations. XBRL software typically provides functionality to "remap" references to URLs of published entry points to local copies of the taxonomy.

The link:schemaRef element in submitted instances MUST resolve to the full published entry point URL (absolute URL).

6.3 Only one link:schemaRef element is allowed per instance document

Under the XBRL standard, the element link:schemaRef can occur several times in an instance. In a submission to the FSRA however only a single entry point schema must be referred to in any instance. This entry point will specify all required data points, and is used to reference a particular report type.

Any reported XBRL instance document MUST contain only one xbrli:xbrl/link:schemaRef element.

6.4 The use of link:linkbaseRef elements is not permitted

Entry points will be defined by means of a schema. There is no use for link:linkbaseRef elements.

Reference from an instance to the taxonomy MUST only be by means of the link:schemaRef element.

The element link:linkbaseRef MUST NOT be used in any instance document.

6.5 XML comments and documentation are ignored

Comments inside the instance that do not get reported as a fact will be ignored.

Relevant business data MUST only be contained in contexts, units, schemaRef and facts.

A comment MUST NOT have any impact on the content of a report.

Comments may be present in instances but their content will be ignored.

6.6 XBRL footnotes are ignored

Footnotes within an instance will be ignored.

Relevant business data MUST only be contained in contexts, units, schemaRef and facts.

A footnote MUST NOT have any impact on the regulatory content of a report.

Footnotes may be present in instances but their content will be ignored.

7 Context related rules

7.1 The length of the @id attribute should be limited to the necessary characters

The @id attribute is meant as a unique technical key within a XML document. Conveying semantics in the @id attribute will likely be lost when the XML content is processed, e.g. stored in a database (which generally works with database specific surrogate keys), any semantics are unlikely to be available to a (human) consumer of the instance data. Even though there is no limitation on the length of an id attribute it is recommended to keep it as short as possible.

Semantics SHOULD NOT be expressed in the xbrli:context/@id attribute. The values of each @id attribute SHOULD be as short as possible.

7.2 No unused or duplicated xbrli:context nodes

Unused contexts (contexts which are not referred to by facts) clutter the instance and add no value to either regulator or reporter [GFM11, p. 12].

(a) **Unused xbrli:context nodes SHOULD NOT be present in the instance. [FRIS04]**

(b) **An instance document SHOULD NOT contain duplicated context, unless required for technical reasons, e.g. to support XBRL streaming.**

7.3 Identification of the reporting entity

The xbrli:identifier element combined with the @scheme attribute allows the identification of the reporting entity by the receiver. The @scheme provides the following URI which uniquely identifies the type of identifier used in the xbrli:identifier node:

@scheme="http://www.adgm.com/registrationAuthorityNumber"

(a) **Instances MUST use the @scheme attribute that is prescribed by the FSRA. [GFM11, p. 11]**

(b) **Instances MUST use an identifier acceptable to the FSRA.**

7.4 Single reporter per instance

There can only be one reporter of an instance. Even if the content of the instance deals with a group of companies, there is only one entity reporting the instance to the regulator.

All xbrli:identifier content and @scheme attributes in an instance MUST be identical. [EFM, p. 6-8]

7.5 The xbrli:period date elements reported must be valid

The xbrli:startDate, xbrli:endDate and xbrli:instant elements all have data type which is a union of the xs:date and xs:dateTime types. FSRA will only allow periods to be identified using whole days, specified without a time zone.

All xbrli:period date elements MUST be valid against the xs:date data type, and reported without a time zone. [GFM11, p. 16]

7.6 The existence of xbrli:forever is not permitted

The extreme version of duration is 'forever'. The XBRL specification has created this to solve problems with dates starting 'at the beginning' and ending 'never'. E.g. the name of the founder of a company has in general no end date. The FSRA is only interested in data for the reported time segment, that has a defined starting and ending date.

The element 'xbrli:forever' MUST NOT be used. [GFM11, p. 19]

7.7 XBRL period consistency

XBRL requires all facts to be associated with a "period" (either a duration or instant of time). Where there are multiple relevant date/period like concepts related to a fact (as is often the case), it may be unclear which of these concepts is expressed by the XBRL period.

A common approach is to associate the XBRL period with some variation of a "real-world date of the event" for a fact. Use of varying "event" dates for facts in a regulatory reporting instance may however lead to complexity, confusion, and practical difficulties (e.g. for selecting facts for table linkbase axes, validating dates, identifying related facts etc.), particularly where the relationship between reporting periods and current and prior conceptual dates (e.g. accounting periods) is unclear, complex, and/or time-varying, such as in jurisdictions allowing non-calendar financial periods.

For simplicity therefore, the FSRA has instead chosen to associate the "reference date" of an instance with the XBRL period concept.

Logical distinctions between other date-like aspects of a fact, such as the "event date, "applicable period", "date offset from reporting date" are conveyed via dimensional attributes of a fact.

All xbrl periods in a report instance MUST refer to the (same) reference date instant. All xbrl periods MUST be instants.

7.8 The existence of xbrli:segment is not permitted

The XBRL Dimensions specification allows taxonomies to specify dimensions for use within either the segment or the scenario of the context. For consistency reasons and simplification of processing, FSRA only uses the xbrli:scenario element.

xbrli:segment elements MUST NOT be used.

7.9 Restrictions on the use of the xbrli:scenario element

The xbrli:scenario element MUST NOT be used for anything other than for explicit or typed members. Custom reporter XML schema content may create problems with the regulatory system.

XML-XBRL: The XBRL specification allows xs:any content. This means that all XML schema content can be stored (not just XBRL Dimensions).

If an xbrli:scenario element appears in a xbrli:context, then its children MUST only be one or more xbrldi:explicitMember and/or xbrldi:typedMember elements, and MUST NOT contain any other content. [EFM, p. 6-8]

8 Fact related rules

8.1 Duplicate (Redundant/Inconsistent) facts

Facts are business duplicates of each other in the reporting sense if they notionally convey answers to precisely the same question. At best such duplicates are simply redundant (where they are truly semantically equivalent), at worst they are inconsistent or contradictory.

An instance document must not have duplicated business fact items. Item X and item Y are "duplicate facts" if and only if all the following conditions apply:

1. X is not identical to Y (not exactly the same XML node[4]), and
2. The element local name of X is S-Equal to the element local name of Y, and
3. X and Y are defined in the same namespace[7], and
4. X is P-Equal to Y[5], and
5. X is C-Equal to Y, and
6. X is U-Equal to Y, and
7. X and Y are dimensionally equivalent (d-equal in all dimensions of each of X and Y), and
8. If X and Y are string items, they also have S-Equal xml:lang attributes[6].

Inconsistent facts are duplicates that are not V equal.

XML-XBRL: Duplicate facts are XML-XBRL syntax valid. However (whether or not their values are different) the semantic meaning may be unclear.

Instances MUST NOT contain duplicate business facts. [FRIS04], [EFM, p. 6-10]

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[4] This apparently trivial condition is stated here since it is sometimes relevant, e.g. when X and Y are the result of different XPath conditions [7] 2&3 may loosely be considered to mean "refer to the same primary item"

[5] Effectively means "refer to the same data point". Note that this definition is very similar to, but not the same as the definition of a "duplicate item", notably it does not require that facts be U-equal to be considered "duplicate facts".

[6] Multiple string facts that would otherwise be duplicates are in principle acceptable in the FSRA reporting context if each has a distinct effective xml:lang attribute (i.e. if they are translations of each other). Note that the following elements do NOT make two facts non-duplicate if they differ (or if they are the same!): **value**, decimals, xml:lang for non-strings, i.e. facts which meet all the conditions in rule 2.16 except point 6.

8.1.1 No multi-unit fact sets

Two facts which differ only by unit are not technically duplicates. Indeed there might be situations in which, for example, the natural answer to a question is a bundle of set of values in several currencies (e.g. £4, $3, €3). However there is clearly a significant potential for confusion with such reporting - e.g. are the different facts supposed to be alternatives ($4 or £3), equivalents ($4 = £3), to be taken as a set ($4 and £3), or just a mistake.

In order to avoid any such doubt or confusion, reporting of "the same fact" in more than one unit is not allowed in FSRA reporting.

> **Instances MUST NOT contain business facts which would be duplicates were their units not different.**

This is in addition to Section 9.5 which specifies acceptable currency usage.

8.2 The use of the @precision attribute is not permitted

The XBRL standard provides two methods of communicating the precision of a numeric fact: @precision and @decimals attributes. Humans seem to have an easier time reading a document that uses the decimals attribute, probably because in most uses the decimals value is likely to be one of a limited set e.g. 2, 0, -3, -6, 9 or INF (and often the same for all/many facts). Moreover, given a decimals value the precision can always be computed, but this is not symmetric.

> **@decimals MUST be used as the only means for expressing precision on a fact. [FRIS 2.8.1.1, EFM, p. 6-12]**

8.3 Interpretation of the @decimals attribute

The @decimals attribute indicates the accuracy of the reported fact value. If a numeric fact has a @decimals attribute with the value n then it is considered to be "correct to n decimal places". Leading zeros and trailing digits should be compact and appropriate to the reported value.

The FSRA will interpret the @decimals attribute on reported data as specifying that the absolute difference between the true value of the number as known to the reporter and its reported lexical representation (known as the "absolute error" of the representation - e_{abs}) is less than or equal to 0.5×10^{-n}. Reporters must prepare submitted reports consistently with this interpretation[7].

The FSRA XBRL validation rules use interval arithmetic for validation. To best enable XBRL Formula calculations to be performed on instance values for validation purposes, preferably no truncations or rounding or any other kind of change should be applied to the reported lexical representation of the numeric facts in the instance. See the explanatory RFC at http://www.xbrl.org/RFC/PDU/PWD-2008-

[7] See also the explanation of "Correct to n decimal places" given in the (now superseded) 2008-07-02 Errata version of the XBRL 2.1 specification at http://www.xbrl.org/Specification/XBRL-RECOMMENDATION-2003-12-31+Corrected-Errata-2008-07-02.htm#_4.6.7.2 [13] E.g. @decimal values of greater than 2 would generally be inappropriate for calculated "monetary" values resulting from e.g. Multiplications or divisions, "INF" is often unlikely to be appropriate for calculated values etc.

10-09/PDU-RFC-PWD-2008-10-09.html. Note however that if numbers are for any reason rounded, they MUST be rounded as per the XBRL 2.1 specification (i.e. [IEEE-754] 4.3.1 Rounding-direction attributes to nearest, roundTiesToEven), and as above the @decimal attribute must accurately represent the relationship between the reported and unrounded values.

(a) The accuracy of a numeric fact MUST be expressed using @decimals

(b) There SHOULD be no truncation, rounding or change to the original fact value, which should be reported as known.

(c) The reported accuracy (@decimal attribute) of a numeric fact SHOULD be a realistic indication of the accuracy to which the lexical representation represents the true value. In particular it SHOULD NOT be excessively high.

Note: In particular, if numbers are truncated or rounded for reporting, they should not be "adjusted" so that they "appear" to be visually consistent (i.e. so that they "foot" or "cast"), but should instead be simply reported with the appropriate @decimals value – the validation checks will take into account the declared accuracy to determine if reported values are (could be) valid.

Accuracy Requirements			
Data Type	**Decimals attribute**	**Note**	**Representation**
Monetary[8]	>= -3, >= -6 for the module Funding Plans only		42563.26
Percentage	>= 4	Must be expressed as a ratio in instances – i.e. typical values between 0 and 1	0.1234 (=12.34%)
Integer	0	Must of course be reported without any decimal part	126

N.B. INF (meaning exact as written) is of course acceptable for the decimal attribute of all numeric types.

[8] N.B. Also applies to facts representing monetary values that are specified (via their primary item) to be reported as currency-less decimal values.

Note: This, combined with the definition of the @decimals property, means that in general monetary values must not be truncated *to thousands (since the reported value might then be up to 1000 from the true value, which is more than the 500 implied by @decimals=-3, requiring instead decimals=-4 to be consistent), but may be* rounded *(i.e. to nearest value) to thousands*[9]*.*

The decimals attribute is not a scale factor. The decimals attribute is not a formatting code; it does not indicate that the digits in the instance must subsequently be presented to a user in any particular way.

The @decimals attribute influences how numbers are interpreted. Use the following table to select the correct value of the @decimals attribute for a fact so that it corresponds to the accuracy to which the value is known.

Accuracy of the amount	Value of decimals attribute
Absolutely exact monetary, percentage or other amount	INF
Accurate to millions	-6
Accurate to thousands	-3
Accurate to hundreds	-2
Accurate to units	0
Accurate to cents	2
Accurate to a hundredth of a percentage point (i.e. a *basis point*)	4

[9] For the funding plans module the equivalent observation regarding truncating vs rounding to millions applies.

Examples: The table below illustrates correct use.

Data	Reported Value	Value of @decimals attribute	Range of value considered in interval arithmetic
A percentage (ratio) of (exactly) 46%	0.46	INF[10]	0.46
A profit margin of 9.3% (minimum accuracy)	0.093	4	0.09295 to 0.09305
Monetary amount "in millions"	1534512	-6	1034512 to 2034512
Monetary amount "in thousands"	117822	-3	117322 to 118322
Monetary amount "in hundreds"	124265	-2	124215 to 125215
Monetary amount, accuracy of "units"	100205.23	0	100204.73 to 100205.73

[EFM, p. 6-28], [GFM11, p. 45f.]

NOTE: For clarification - this guidance applies only to the representation of the values in the transmission XBRL instance file, it of course places no constraints on the display of information to any user or preparer of the data. Tools may choose to display values however they (and their user's) desire, so long as when instance files are produced the canonical representation is used.

8.4 Guidance on use of zeros and non-reported data

Data could be reported with a non-zero value, as zero or unreported.

The @xsi:nil attribute MUST NOT be used in the instance.

The table below shows the different possible scenarios:

[10] N.B. it is only appropriate to use "INF" where the true value is known to be absolutely precisely the value reported, as written. E.g. Monetary balances in cents, or chosen rather than calculated percentages.

Reported Zero or Nonzero value	e.g. <eba_met:mi53 unitRef="USD" decimals="2" contextRef="c2">1025.25</eba_met:mi53>		The value of the fact is known.
Reported nil value	e.g. <eba_met:mi53 unitRef="USD" contextRef="c2" @xsi:nil="true" />		MUST NOT be used
Missing fact	The fact doesn't appear in the instance.	Template including this fact is reported	The value is treatable as equivalent to zero (if numeric fact) or empty (if non-numeric) by the recipient.
		No template including this fact is reported	The value is "unknown" to the recipient.

Inapplicable information need not be included in an instance, i.e. inapplicable facts MAY be left out.

Note: For validation purposes, unreported numeric facts belonging to a template indicated as "reported" by an instance (using filing indicators) will be treated as equivalent to zero in the evaluation of certain rules – see the details of individual rules.

Note: Zero values SHOULD, preferably, be explicitly reported where they are interesting supervisory reporting information. "Uninteresting zeros" (i.e. large swathes/permutations of trivially zero or simply inapplicable information, for example the large bulk of countries, currencies, lines of activity etc. in which a reporter has nothing relevant to report) SHOULD NOT be reported for obvious practical reasons.

8.5 Information on the use of the xml:lang attribute

The language used on string based facts may need to be identified. This can be done by declaring the @xml:lang on the xbrli:xbrl element just once, or on every string based fact individually. No restrictions are placed on language used in reporting string facts (such as entity names), however some strings are required to have specific values by the ITS which are not language specific, and should be the same whatever language is marked.

In practice, the @xml:lang attribute is in general not required in instances remitted to the FSRA and may be omitted. It is compulsory to use the attribute in the specific case of distinguishing otherwise duplicate string facts, where an individual fact is reported in more than one language (i.e. with translation). This is expected to be a relatively rare situation as there is no requirement to submit translations of string facts.

9 Unit related rules

9.1 Duplicates of xbrli:xbrl/xbrli:unit

Units are equivalent if they have equivalent measures or equivalent numerator and denominator. Measures are equivalent if their contents are equivalent QNames. Numerators and Denominators are equivalent if they have a set of equivalent measures. Duplicated units do not express extra semantics and potentially disturb comparison of facts that point to any of the duplicated occurrences [EFM, p. 6-10].

An XBRL instance SHOULD NOT, in general, contain duplicated units, unless required for technical reasons, e.g. to support XBRL streaming.

9.2 Unused xbrli:xbrl/xbrli:unit

Unused units (units which are not referred to by facts) clutter the instance and add no value to either supervisor or reporter.

An XBRL instance SHOULD NOT contain unused xbrli:unit nodes. [FRIS04]

9.3 Reference xbrli:unit to XBRL International Unit Type Registry (UTR)

XII has released a standard numeric data type registry: it has a schema with numeric type declarations, and each numeric data type is associated with consistent unit declaration measures, numerators and denominators. Use of this registry that contains all the usual units eases implementation in software and simplifies validation (http://www.xbrl.org/utr/utr.xml).

xbrli:unit children MUST refer to the XBRL International Unit Type Registry (UTR). [EFM13, p. 6-17]

9.4 Report of the actual physical value of monetary items (see also 2.27)

Facts that represent amounts in any currency will be of an item that is derived from xbrli:monetaryItemType, which must follow the restriction in XBRL 2.1, section 4.8.2, regarding monetaryItemType (i.e., unit measure is an ISO 4217 currency designation). Such facts must not have unit measures that express any scaling (which would interfere with the expression of accuracy by the @decimals attribute).

Units representing currencies MUST represent the actual physical value of these currencies, i.e. in basic units, not including any scaling factor in the unit.

9.5 Choice of Currency for Monetary facts

In general monetary values in an instance must all be expressed in the same ("reporting") currency, which has been defined by the FSRA as US dollars (iso4217:USD), i.e. values should be converted to USD.

The multi-currency Liquidity Coverage Ratio (LCR) tables are an exception to this rule, as firms reporting monetary values will report for each "significant currency". Values will be reported as-is in the underlying currency in a manner consistent with the LCR tables from CRDIV.

An instance MUST express all monetary facts using the reporting currency USD, except when creating an LCR submission.

For LCR submissions only the instance MUST express monetary facts in the underlying currency for each "significant currency".

9.6 Non-monetary numeric units

(a) An instance MUST express its non-monetary numeric values using the "pure" unit, a unit element with a single measure element as its only child. The local part of the measure MUST be "pure" and the namespace prefix MUST resolve to the namespace: http://www.xbrl.org/2003/instance .

(b) Rates, percentages and ratios MUST be reported using decimal notation rather than in percentages where the value has been multiplied by 100 (e.g. 9.31% must be reported as 0.0931).

9.7 Decimal representation

The value of numeric facts must be expressed in the specified units, without any change of scale and should be expressed without rounding or truncation.

The content of a numeric fact must therefore not include any scale factors like "%". Specifically, Monetary values[11] must be expressed in units, not in thousands or millions.

i.e. the value $2,560,561.43 may be transmitted as, amongst others, any of

Acceptable representations of $2,560,561.43		
Value	**Value of decimals**	**Implies**
2560561.43	INF	Exact
2560561.43	2	+/- 0.005
2560561.43	0	+/- 0.5
2560561.43	-3	+/- 500
2560561	*0*	*+/- 0.5*
2561000	*-3*	*+/- 500*

Note that although the last two representations (rounding the transmitted value) are acceptable, FSRA would prefer that they are avoided where a better estimate for the value is known, and this is transmitted without rounding or truncation as in the first four examples.

But, for example, $2,560,561.43 MUST NOT be transmitted as "2561"

Incorrect representation of an amount of 2,560,561.43	
Value	**Value of decimals**
2561	-3

As this represents $2,561 (+/-500), rather than the intended $2,561,000.00 (+/-500)

[11] Whether using monetaryItemType metrics or decimal.

10 Additional Guidance

10.1 Unused namespace prefixes

Declaring unused namespaces is uncalled for and clutters the instance document.

Namespace prefixes that are not used SHOULD not be declared in the instance document. [FRIS04]

10.2 Re-use of canonical namespace prefixes

Most schema authors provide a namespace prefix for their targetNamespace. It is common practice to re-use these prefixes in other XML documents when needed. It may lead to confusion to human readers to see commonly understood prefixes used on a different namespace, or novel prefixes used for a common namespace. E.g. the prefix 'xs' used for the http://xbrl.org/2003/xbrl-instance-2033-12-31 namespace (which would normally be associated with the prefix 'xbrli', 'xs' in contrast usually being associated with http://www.w3.org/2001/XMLSchema). Note that this does not affect the use of a default namespace attribute on an element to avoid the need for the use of a namespace prefix on the element and its children altogether.

Namespace prefixes, where used in instance documents, SHOULD mirror the namespace prefixes as defined by their schema author(s). [FRIS04]

10.3 Legal Entity Identifiers

The FSRA requires the use of http://www.adgm.com/registrationAuthorityNumber as the identifier scheme for Legal Entity identifiers (LEIs).

e.g.

<xbrli:entity>

<xbrli:identifier scheme="http://www.adgm.com/registrationAuthorityNumber" >IDENTIFIER </identifier>

</xbrli:entity>

10.4 Unused @id attribute on facts

Unused @id attributes on facts add no value to the supervisor and should not be included in the instance unless they are valuable to the reporter.

The instance SHOULD NOT include unused @id attributes on facts.

10.5 Length of strings in instance

Even though there is no limitation on the length of a string reported in an instance, excessively long strings are likely to cause issues in systems involved in the reporting process, many of which will have some practical constraints on the length of string they are able to handle. For this reason it is recommended to limit reported string to only the necessary characters.

The values of each string SHOULD be as short as possible.

10.6 Namespace prefix declarations restricted to the document element

Namespace prefixes should be avoided in other elements of the instance document.

This helps to improve the readability of the document and reduces its size

Namespace prefixes declarations SHOULD be restricted to the document element.

10.7 Avoid multiple prefix declarations for the same namespace

Two namespace prefixes declarations SHOULD NOT correspond to the same namespace. This helps to improve the readability of the document.

Namespaces used in the document SHOULD be associated to a single namespace prefix.

10.8 XBRL Streaming Specification

There is an XBRL specification called the “XBRL Streaming Extensions Module” which is under development that aims to facilitate the processing of very large XBRL instances. A “Streamable Instance Document” is an XBRL v2.1 instance document that obeys the serialisation constraints defined by that specification.

Several of the filing rules in this document provide guidance on the production of “nice” XBRL instances, i.e. instances that are compact, clear and less prone to errors in creation or usage. However when producing instances focusing on the efficient creation and processing of very large files it may be necessary to adapt or ignore some of these normal best practices. In general, the creation of a “streamable instance document” is a legitimate reason not to follow “SHOULD” rules where they conflict with or inhibit the usage of the Streaming Extensions Module specification.

Rules that are noted as being particularly relevant in this context (i.e. for which it is acknowledged that streamable instance documents may need not to comply) include:

- 1.6.2 —Filing indicators in several tuples
- 2.7 — No unused or duplicated xbrli:context nodes
- 2.21 — Duplicates of xbrli:xbrl/xbrli:unit