Bank of England

Bank of England Statistics taxonomy version 1.2.4 release note

26 September 2022

Version 1.2.4 of the Bank of England Statistics taxonomy involves adjustments to a number of validation rules. All entry points remain the same with this update.

A change log has been published to outline changes between version 1.2.3 and this release. A number of validations have been added, amended or removed. There has also been a change to make reporting of the Basic Information table (BI.01.01.01) mandatory.

All published documents now consistently refer to v1.2.4 but there have only been definitional changes to the taxonomy package, validation spreadsheet and the corresponding change log.

Bank of England Statistics taxonomy version 1.2.3 release note

26 May 2022

Version 1.2.3 of the Bank of England Statistics taxonomy involves adjustments to a number of validation rules. All entry points remain the same with this update.

A change log has been published to outline changes between version 1.2.2 and this release. A number of validations have been added or amended to ensure the Basic Information template is reported correctly. Additionally a fix has been introduced for FV_v0044 and a number of CE validations have been removed.

All published documents now consistently refer to v1.2.3 but there have only been definitional changes to the taxonomy package, validation spreadsheet and the corresponding change log.

Bank of England Statistics taxonomy version 1.2.2 release note

31 January 2022

Version 1.2.2 of the Bank of England Statistics taxonomy is a corrective release addressing feedback that has been received since the publication of version 1.2.0. All entry points remain the same with this update.

A change log has been published to outline changes between version 1.2.0 and this corrective release. The majority of the items addressed were already detailed in the known issues spreadsheet, which has also been updated. The changes primarily relate to validation rules.

Note, we have adopted the latest www.eurofiling.info files within our taxonomy package which contains changes to the pivot-variable.xml file. This can affect how some processors evaluate assertions which refer to tuple facts, such as filing indicators. To ensure no errors are seen when your submission is processed by BEEDS, filing indicators must be provided within a single tuple.

Correct example, of a single tuple:

```
<find:fIndicators>
  <find:filingIndicator contextRef="c1">BI.01.01</find:filingIndicator>
  <find:filingIndicator contextRef="c1">BT.01.01</find:filingIndicator>
  <find:filingIndicator contextRef="c1">BT.02.01</find:filingIndicator>
  <find:filingIndicator contextRef="c1">BT.03.01</find:filingIndicator>
</find:fIndicators>
```

Incorrect example, of separated tuples:

```
<find:fIndicators>
  <find:filingIndicator id="c1" contextRef="context">BI.01.01</find:filingIndicator>
</find:fIndicators>
<find:fIndicators>
  <find:filingIndicator id="c1" contextRef="context">BT.01.01</find:filingIndicator>
</find:fIndicators>
<find:fIndicators>
  <find:filingIndicator id="c1" contextRef="context">BT.02.01</find:filingIndicator>
</find:fIndicators>
<find:fIndicators>
  <find:filingIndicator id="c1" contextRef="context">BT.03.01</find:filingIndicator>
</find:fIndicators>
```

Bank of England Statistics taxonomy version 1.2.1 release note

25 October 2021

Version 1.2.1 of the Bank of England Statistics taxonomy is a minor update to ensure row, column and sheet codes are correctly identified within the label linkbase files. The changes are limited to only -lab-codes.xml files and as such this update does not affect instance files generated against the taxonomy package.

The change log comparing to PWD2 has also been republished as it has been identified tables with only table structure modifications were not recorded properly in the initial log provided. Other refinements to the change log include:

- information about modification in hierarchies and table structures (row/column headers) has been improved by identifying proceeding sibling by code or label,

- improved presentation of change in composition of enumerated metrics,
- inclusion of severity status in business rules (ruleToModuleAssignments),
- extension of categorization information by dimension code (in dimensionMemberCharacteristics) and fixes to dimension identification in semi-open axes (hierarchyRestrictions),
- variables in added business rules are no longer display as added (as they are part of the added business rule),
- unnecessary technical attributes (e.g. maxOccurance, isScope, etc.) have been removed.

Only the taxonomy package and change log files have been amended since v1.2.0.

Bank of England Statistics taxonomy version 1.2.0 release note

6 September 2021

Version 1.2.0 of the Bank of England Statistics taxonomy is an update to support the collection of statistical data previously collected in an XML format. This change was announced in Statistical Notice 2021/02.

This publication follows two Public Working Draft (PWD) publications in Q2 2021 where we offered the opportunity for feedback. A change log has been published to outline changes between PWD2 and this final publication.

The taxonomy, data point model (DPM) dictionary, annotated templates and validation rules represent the reporting requirements outlined on the Forms, definitions and validations page of the Bank of England website, and collected under the Statistical Code of Practice. Reporting requirements are unchanged as result of the migration to taxonomy version 1.2.0, and therefore our published definition documents should continue to be used. Over time the data model may be refined to ensure full alignment with these definitions.

The data point model is an extension of the European Banking Authority's (EBA) data point model. Filings will be subject to the Bank of England Statistics XBRL filing manual, which has been published alongside this taxonomy. This manual is predominantly based on the EBA filing rules as published on the EBA website.

Given version 1.2.0 is an extensive update it is prudent to plan for a corrective release, should we receive feedback that warrants correction before the next taxonomy version. Confirmation will be given by the end of 2021 if such a release will be published or not.

Specific points to note

- Reporting of forms AS and FV is currently completed against BoE Statistics taxonomy version 1.1.0. In taxonomy version 1.2.0 there are minor amendments to these modules to bring consistency across the full suite of forms. In line with the rest of the reporting forms the validation rules have been optimised

(further details within 'Key changes compared to OSCA reporting'). Taxonomy version 1.2.0 should be used for AS and FV reporting from Q1 2022 reporting onwards.

- All forms are structured as separate modules within the same framework. There is also an 'all' module which has all templates and validations associated to it. This may prove useful for testing and data preparation activities but will not be permitted for reporting in BEEDS (UAT or LIVE environments).

- The code assigned to each validation rule is prefixed by the related module(s). For cross form rules the modules are listed in alphabetical order.

- Cross form validation rules have been added to the final Taxonomy 1.2.0 taxonomy package against the 'all' entry point. This is a change to the Public Working Drafts (PWD) shared and is to facilitate automated verification of these validations prior to uploading data into the BEEDS system.

- A sample file for each entry point in the taxonomy has been provided for illustration purposes. Note the files contain random data which should not be assumed to comply with the validation rules, filing rules or any other technical or business requirements for valid reporting.

- We have applied an absolute tolerance approach for all forms except form AS, which continues to apply interval arithmetic. This is to keep the methodology consistent with the approach used previously in OSCA.

  We typically do not apply tolerance when comparing two numbers or comparing to a constant as this may lead to a result which goes against the intention of the validation. Tolerance is also not applied in checks other than numeric; this includes existence or conditional existence checks and text match checks.

Type of check	Example
Comparing two numbers	{t:AL.02.01.01,x:C0010,dv:0}>={t:AL.01.01.02,x:C0070,dv:0}
Comparing to a constant	{t:BH.02.01.01,dv:0}>=0
Existence check	Not(IsNull({t:BI.01.01.01,y:R0020,x:C0010,dv:()}))
Conditional existence check	If (not(isnull({t:AS.01.01.01,x:C0220,dv:()}))) then (isnull({t:AS.01.01.01,x:C0230,dv:()}))
Text match check	matches({t:AS.01.01.01,x:C0010,dv:0}, "^ISIN/[A-Z0-9]{12}$")))

- Where two or more data points have the same modelling it will not be permitted to provide different values as this would result in inconsistent reporting. There are only a few instances of multiple reportable data points with the same modelling existing within the same reporting form.

  There are instances where not reportable data points have the same modelling as reportable data points. Typically in XBRL software reported values will appear in both locations, making it seem as though a value has been provided for a not reportable data point. This is to be expected and is because the table

structures are simply a representation of data which is reported in a data-centric manner. To reiterate reporting requirements are unchanged as result of the migration to taxonomy version 1.2.0.

- o As an example this will affect:
    - PL.01.01.01 R1700 and PL.02.01.01 R0480
    - PL.01.01.01 R0860 and PL.02.01.01 R0210

Key changes compared to OSCA reporting

- As the reporting requirements have been modelled in a data-centric manner box codes are no longer used. In the supporting Excel documents table, row, column and sheet references are used, which makes it clear for validation rules which data points are being compared.

  To assist in the move away from box codes, we will publish mapping documents listing each data point signature, the table location(s) it's used in and the box code(s) in the old forms it relates to. We only intend to provide these mappings for taxonomy 1.2.0 and will not maintain them for future taxonomy updates. These mappings are being prepared now the taxonomy is final and will be published as soon as possible.

- We are moving away from using the reporting institution code as the firm identifier for statistical reporting. Instead the Legal Entity Identifier (LEI) and Firm Reference Number (FRN) have been added as data points within the basic information template. Our strong preference is for the LEI to be used as the firm identifier, with the FRN acting as an alternative for extraordinary circumstances.

  We recommend that Firms have their own LEI's, with branches using a separate LEI to that of the parent. The Branch LEI should also be a UK based LEI.

- Reporting is expected to be in units for all forms. Previous reporting was requested in thousands or millions (depending on the specific form) but we are requiring reporting in units from the adoption of taxonomy 1.2 onwards. This change provides consistency across all forms and for some will reduce the amount of manipulation required when preparing data submissions.

  It is permitted to round values to maintain the same level of precision as reported prior to the adoption of the Bank of England Statistics taxonomy (accurate to thousands or millions). It is also permitted to report more precisely and report figures as known, for example accurate to units. The level of precision reported to is communicated using the @decimals attribute. Further details about this attribute are provided in the accompanying filing manual.

- We are adopting country codes fully aligned to ISO 3166. In the OSCA forms there are some instances where the code used doesn't align to this standard, perhaps where we assigned a code before the ISO standard was updated.

  An example below highlights that the two coding structures can cause confusion: care must be taken to ensure you report against the intended country now we are using ISO 3166 country codes. For entries

such as Abu Dhabi not in the ISO 3166 standard, a 3 digit code has been assigned which futureproofs against any subsequent ISO additions.

Country name	Code in data model/ ISO 3166	Code on OSCA form
Antigua	AG	AA
Anguilla	AI	AG
Abu Dhabi	ABI	AI

- Validation rules have been optimised where possible by defining a scope for the validation. Many of the statistical data quality checks are repetitive in their nature, performing the same test for a number of data items. Optimised validations define this rule expression once and evaluate it separately for each parameter in the scope, typically a series of rows or columns. This dramatically decreases the number of validation rules within the taxonomy, leading to benefits in performance and future maintenance.

Previous validations

  - o BT£2 = BT£2A+BT£2B+BT£2C+BT£2D+BT£2E+BT£2F+BT£2G+BT£2H+BT£2J

  - o BTE2A+BTE2B+BTE2C+BTE2D+BTE2E+BTE2F+BTE2G+BTE2H+BTE2J

  - o BTC2A+BTC2B+BTC2C+BTC2D+BTC2E+BTC2F+BTC2G+BTC2H+BTC2J

Optimised taxonomy validation

Code	Scope	Expression
BT_v0001	scope({t:BT.01.01.01,x: C0010;C0020;C0030})	{t:BT.01.01.01,y:R0020,dv:0} = sum({t:BT.01.01.01,y:R0030;R0040;R0060;R0070;R0080;R0090; R0100;R0110;R0120,dv:()})

Most software for validating XBRL instances will highlight the exact data points which have caused the problem, helping to narrow which of the scope evaluations is relevant. Within BEEDS the validation failure message will include the values reported to also assist with this.

Changes to document formatting

We have refined our data model and taxonomy generation processes to ensure updates are made in a robust and automated manner. This taxonomy has been produced using these refined generation processes and so there are some cosmetic differences in the outputs being published compare to BoE Statistics taxonomy version 1.1.0. Key differences are outlined below:

- Additions, deletions and modifications are no longer highlighted according to the previous colour convention. Instead this information will be provided in a change log, and this log will include increased traceability on changes made to validation rules.

- Within the data dictionary, the domain owner has been added as a prefix to the worksheet names.

Annotated templates

- Each table is now given its own worksheet, rather than being grouped at a template level. Automation software can struggle with the previous approach of multiple tables on the same sheet as there isn't a clear start point to each table (given table lengths vary). To aid navigation a hyperlink to return to the 'Table of Contents' worksheet has been added in the top left of all table worksheets.

- Indented text within spreadsheet cells is no longer used. Instead separate columns are used to articulate the parent-child relationship that exists between rows. This change should improve the readability of our templates by giving clarity over the relationship between reporting requirements.

- Minor changes have been made to the notation of dimensional modelling. Dimension headings now include the dimension owner and references to the applicable domain have been removed. The domain is still noted against the domain member notation, and here the domain owner has also been added. An example is articulated below.

	Previous notation	Revised notation
Dimension heading	(BAS:BA) Base	eba_dim:BAS (Base)
Domain member	(BA:x17) Memorandum items	eba_BA:x17 (Memorandum items)

- Text colouring has been removed from the dimensional modelling of rows, columns and sheets. Some annotated templates have many dimensions and the text colouring was intended to differentiate between them, with the colours chosen holding no particular meaning. However this may have caused some confusion; the new format gives a faint grey border, which should help to differentiate between dimensions, and consistent column widths.

- Row codes have moved to the right-hand side of the row label. Freeze panes have also been added to ensure axis codes and labels remain visible when scrolling through the worksheet.

- Not reportable data points have become more apparent as they are now coloured grey as well as crossed out. Previously a grey fill colour was used to indicate row and column labels but the introduction of freeze panes removes the need for this colouring.

Entry points

Added

Entry point code	Entry point label	SchemaRef
all	All forms	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/all.xsd
ad	Form AD	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/ad.xsd
al	Form AL	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/al.xsd
as	Form AS	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/as.xsd
be	Form BE	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/be.xsd
bg	Form BG	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/bg.xsd
bh	Form BH	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/bh.xsd
bn	Form BN	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/bn.xsd
bt	Form BT	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/bt.xsd
c1	Form C1	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/c1.xsd
ca	Form CA	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/ca.xsd
cc	Form CC	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/cc.xsd
ce	Form CE	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/ce.xsd
cl	Form CL	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/cl.xsd
dq	Form DQ	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/dq.xsd
el	Form ELS	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/el.xsd
er	Form ER	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/er.xsd

fi	Form FI	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/fi.xsd
fo	Form FO	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/fo.xsd
fv	Form FV	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/fv.xsd
gt	Form GT	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/gt.xsd
ic	Form IC	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/ic.xsd
io	Form IO	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/io.xsd
is	Form IS	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/is.xsd
ln	Form LN	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/ln.xsd
mm	Form MM	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/mm.xsd
mq	Form MQ	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/mq.xsd
pb	Form PB	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/pb.xsd
pl	Form PL	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/pl.xsd
pm	Form PM	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/pm.xsd
wo	Form WO	http://www.bankofengland.co.uk/data/xbrl/fws/banking_stat/stats/2021-09-03/mod/wo.xsd