



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}, "^SIN/[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.

- 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

- $BT\text{£}2 = BT\text{£}2A + BT\text{£}2B + BT\text{£}2C + BT\text{£}2D + BT\text{£}2E + BT\text{£}2F + BT\text{£}2G + BT\text{£}2H + BT\text{£}2J$
- $BTE2A + BTE2B + BTE2C + BTE2D + BTE2E + BTE2F + BTE2G + BTE2H + BTE2J$
- $BTC2A + BTC2B + BTC2C + BTC2D + BTC2E + BTC2F + BTC2G + BTC2H + BTC2J$

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 |