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Liquidity Taxonomy Feedback

Feedback from Olive Octagon on the Bank of England Insurance liquidity taxonomy PWD

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Introduction

In this document we have presented our findings from going through the Bank of England Insurance liquidity taxonomy PWD. We did not undertake a separate thorough review process, rather these are the things we found when implementing our reporting solution.

In general we found the taxonomy to be very complete and well structured, but we do have a few pieces of feedback that we'd like to draw the Bank of England's attention to.

We have tried to include any knock-on effects from our recommended changes (e.g. to validation rules), but these may not represent the complete list of implications.

We would be happy to discuss any of these points further if the Bank of England wishes.

Entry Point Design

Naming and Meaning of Entry Points

Observations

The five entry points are named according to their reporting frequency, with the annual report split between group and solo, and the monthly report split between long-form and short-form for the cash flow mismatch table.

However, the content of these entry points seems more like it is split by the data being reported, and the reporting frequency is a requirement external to the taxonomy itself. Unlike UK Solvency where the quarterly data is largely a subset of the annual data, the liquidity taxonomy data is not. Also, with the potential requirement for the short-form cash flow table to be reported daily, it would make more sense to name this entry point something other than "monthly".

Therefore, we feel it would make more sense to name the entry points (both in their name/code and description) as per the data being reported and leave the reporting frequency as an external requirement and not coded within the taxonomy itself. This approach would be consistent with the Bank of England Statistics taxonomy where the entry points are divided by the data being reported and not reporting frequency.

As an additional comment on entry point names, we don't feel the need to try to stick to three-letter entry point names. This has been the convention in Solvency II and UK Solvency, but it's not a convention across many other taxonomies including the Bank of England Statistics taxonomy.

Recommendations

Rename the entry points as follows:

Current		Recommended	
Name	Description	Name	Description
alg	Annual Liquidity reporting Group	clfg	Committed liquidity facilities (group)
alo	Annual Liquidity reporting Solo	clfs	Committed liquidity facilities (solo)
qlr	Quarterly Liquidity reporting	lmrs	Liquidity market risk sensitivities
mll	Monthly Liquidity reporting (long-form)	cfml	Cash flow mismatch (long-form)
mls	Monthly Liquidity reporting (short-form)	cfms	Cash flow mismatch (short-form)

Structure and Reuse of LQ.00.01.01.01 and LQR.00.01.01.01

Observations

The "Content of the submission" tables LQ.00.01.01.01 and LQR.00.01.01.01 are used in both of the monthly entry points (long-form and short-form). Each table contains options for the long-form cash flow mismatch table (LQ.01.01.01.01) in R0040 and the short-form cash flow mismatch table (LQ.01.02.01.01) in R0050. However, the monthly long-form entry point does not include the short-form cash flow mismatch table, and the monthly short-form entry point does not include the long-form cash flow mismatch table.

We don't feel it's appropriate to have an item on the "Content of the submission" table which is impossible to report within the entry point.

Recommendations

Remove references to the short-form cash flow mismatch tables (LQ.01.02.01.01 and LQR.01.02.01.01) from the ".01" variants of the "Content of the submission" tables LQ.00.01.01.01 and LQR.00.01.01.01 respectively. That is, remove R0050 from these tables.

Introduce new variants of the "Content of the submission" tables that apply to the monthly short-form entry point and that contain references to the short-form cash flow mismatch tables. These variants would be copies of the current LQ.00.01.01.01 and LQR.00.01.01.01 tables but with R0040 removed.

Amend relevant validation rules to reflect this change: LR_bv0001, LR_bv0007, LR_TV0_4, LR_TV0_12, LR_bv0121*, LR_bv0123* and LR_bv0171.

Introduction of an "all" Entry Point

Observations

We expect there should be consistency between tables reported in different entry points. We also expect that it would be of value for reporting entities to be able to ensure consistency by making use of validation rules published by the Bank of England.

With the bulk of the data tables being in different entry points, it is not possible to include validation rules that run between these tables.

^{*} Note that there are further observations relating to these validations later in this document.

In the Bank of England Statistics taxonomy there is an "all" entry point which is not to be used for reporting but is included for structural reasons to allow reporters to run cross-table validation rules that would otherwise be cross-entry-point validation rules. We feel the liquidity taxonomy would benefit from the inclusion of such an entry point.

Recommendations

Introduce an "all" entry point that contains all tables.

Introduce validation rules that run between tables.

Data Point Modelling

Counterparty Code and Code Type on LQ.03.01 "Committed Facilities - Information on Lenders"

Observations

On tables LQ.03.01.01.02 and LQ.03.01.04.02 there are separate columns for the counterparty code (C0140) and the type of this code (C0150).

The approach of splitting code and type of code in XBRL is inconsistent with elsewhere in the taxonomy (e.g. C0190 on the same table). It is also not consistent with how data of this type is modelled in the UK Solvency templates, although we note that this may be done largely for historic reasons relating to EIOPA's Solvency II taxonomy. While splitting the code and code type is sometimes done for presentational reasons in template instructions, it has not been previously modelled this way in XBRL.

Column C0140 is modelled using the metric s2md_met:si1558. This is the same metric used on IR.08.01.01.02 (C0270), IR.08.01.04.01 (C0270), IR.10.01.01.01 (C0080) and IR.10.01.04.01 (C0080) in the UK Solvency entry points, and in all these cases it is requested that the reported string be of the form "None" or "LEI/...". Having the same metric used differently in different places may make data consolidation and cross-referencing more difficult.

Validation rules LR_bv0028 and LR_bv0131 expect that if C0150 is reported as b38 (LEI) then the value of C0140 starts with "LEI/". This seems to be a duplication of data (i.e. the code type).

Recommendations

Remove C0150 from LQ.03.01.01.02 and LQ.03.01.04.02.

Relabel the remaining columns accordingly.

Remove b38 and b39 from the s2c SE domain and subsequently remove the boec 16 hierarchy.

Remove boemd met:ei2745.

Remove validation rules LR_bv0024, LR_bv0028, LR_bv0131 and LR_bv0132.

Amend validation rules LR_bv0025, LR_bv0108, LR_bv0133, LR_bv0134 to reference C0140 instead of C0150.

Remove reference to C0150 from validation rules LR_bv0097 and LR_bv0130

Introduce new validation rules for LQ.03.01.01.02 and LQ.03.01.04.02 that check that if there is a value in C0140 then it must be either "None" or "LEI/...". This could be achieved using a rule similar to LR_bv0027 with the regular expression set to ^(None | LEI/[A-Z0-9]{20})\$.



Counterparty Group Code and Code Type on LQ.03.01 "Committed Facilities - Information on Lenders"

Observations

On tables LQ.03.01.01.02 and LQ.03.01.04.02 the counterparty group code (C0190) is stated to be left blank in the instructions if no LEI code is available, and validation rules LR_bv0027 and LR_bv0137 enforce this by checking the value of C0190 against the regular expression ^LEI/[A-Z0-9]{20}\$.

Column C0190 is modelled using the metric s2md_met:si1559. This is the same metric used on IR.08.01.01.02 (C0340) and IR.08.01.04.01 (C0340) in the UK Solvency entry points, and in both these cases it is requested that the reported string be of the form "None" or "LEI/...". Having the same metric used differently in different places may make data consolidation and cross-referencing more difficult.

Recommendations

Change the instructions for C0190 to report "None" instead of leaving blank where no LEI code is available.

Change the regular expression in validation rules LR_bv0027 and LR_bv0137 to include "None", e.g. $^(None|LEI/[A-Z0-9]{20})$ \$.

Duplicated Metrics: boemd met:mi7776 and boemd met:mi7778

Observations

The moderately dimensioned metrics boemd_met:mi7776 and boemd_met:mi7778 refer to the same underlying dimension values.

These metrics are used on LQ.01.01.01.01 and LQR.01.01.01, with boemd_met:mi7776 being used in R1400 for "Other inflows" and boemd_met:mi7778 being used in R1460 for "Other collateral outflows". The direction of the flows is differentiated in the taxonomy by the addition of the s2c_TA dimension, with R1400 using x46 ("Inflow amount") and R1460 using x64 ("Outflow amount"), and therefore we don't believe the two rows need to use different metrics, and both could use boemd_met:mi7776.

Recommendations

Remove boemd_met:mi7778 from the taxonomy.

Remap R1460 on LQ.01.01.01.01 and LQR.01.01.01.01 to use boemd_met:mi7776.

Unused Domain Member "Contractual payment date" in s2c TD Domain

Observations

A new item b7 ("Contractual payment date") has been introduced into the s2c_TD domain. We can't find that this item is used anywhere.

Recommendations

Remove b7 from the s2c_TD domain.

Duplicated "Money market funds" Member in s2c_SE Domain

Observations

A new item **b41** ("Money market funds") has been introduced into the **s2c_SE** domain. Another member **x53** also titled "Money market funds" already exists within the **s2c_SE** domain. Member **x53** is marked with a "Valid To" date of 31 December 2013, but we have previously been told by the Bank of England that these



validity dates do not matter and the items can be used anyway, so we would expect that the Bank of England would use x53 instead of creating a new and apparently identical domain member.

Recommendations

Remove b41 from the s2c_SE domain.

Remap data points that use the b41 member to use x53 instead.

Doubling of Dimensions in Moderately Dimensioned Metrics

Observations

We have not been through the entire taxonomy in detail to check for this, but we have noticed one place where a data point is modelled using a duplicated, and inconsistent, dimension value. We noticed this when looking into b41 in the s2c_SE domain above.

Rows R0260 to R0330 on LQ.01.01.01.01 and LQR.01.01.01.01 relate to money market funds. Each row is modelled using the metric s2md_met:mi235 and additionally has the s2c_CT dimension value set to boec s2c SE:b41 ("Money market funds").

The metric s2md_met:mi235 is constructed to contain the s2c_CT dimension with a value of x53 ("Money market funds"). While this may seem like a benign case, it is not good practice to have an explicit dimension value defined that is already contained within the moderately dimensioned metric, especially where the value of this dimension is different (even though the label may look the same).

Recommendations

Either:

Remove the explicit s2c CT dimension from rows R0260 to R0330 on LQ.01.01.01.01 and LQR.01.01.01.01.

Or:

Change the metric for rows R0260 to R0330 on LQ.01.01.01.01 and LQR.01.01.01.01 to be s2md_met:mi238 which is similar to s2md_met:mi235 but without the s2c_CT dimension value of x53 included.

We would also recommend going through the taxonomy to make sure that no other dimension clashes have been introduced. Unfortunately we did not have time to undertake this exercise.

Validation Rules

In addition to the validation rule recommendations listed above, we would also like to draw attention to the following observations.

LR_bv0112

Observations

Validation rule LR_bv0112 checks that R0025 on LQ.00.02.01.01 matches an LEI code or the pattern $^SC/[A-Z0-9]{20}$ \$.

This pattern suggests that an "SC" code must always contain 20 characters of A-Z or 0-9. We are not familiar with the exact rules for special codes, but our understanding from Solvency II and UK Solvency is that a code of type "SC" is not this restrictive. If our understanding is correct, we would recommend a more relaxed regular expression pattern.



Recommendations

Change the regular expression for "SC" codes to <u>^SC/\S+\$</u> which permits one or more non-whitespace characters for the code. If there are tighter restrictions on an "SC" code, then we would be happy to work with the Bank of England (at no charge) to construct a more appropriate regular expression.

Combine the two regular expressions in the "or" case into one for efficiency, e.g. ^(LEI/[A-Z0-9]{20}|SC/\S+)\$. Note our further recommendation regarding LEI code regular expressions below.

LEI Code Regular Expressions

Observations

As noted above, we believe regular expressions can be a very efficient way to create validation rules. Regular expressions are very powerful, but we appreciate they can also be difficult to construct.

LEI codes have the constraint that not only must they consist of upper-case characters or numbers, but also that the last two digits must be numbers. Therefore, the regular expressions for LEI codes could be tightened to include this feature.

Recommendations

Change the regular expression for LEI codes in all validations from [A-Z0-9]{20} to [A-Z0-9]{18}\d{2}.

Unnecessary Completion Checks

Observations

Validation rules LR_bv0119 to LR_bv0124 contain checks to make sure that if the "Content of the submission" table states that a table has been reported then there is at least one data item relating to this table in the data.

We appreciate the thoroughness and indeed these rules must have taken some time to construct. However, the technical validation rule LR_TV0 checks consistency between each "Content of the submission" field and its relevant filing indicator, and one of the fundamental structural requirements of XBRL is that if a filing indicator is "true" then there must be at least one data item reported.

If a filing indicator is "true" and no data item exists then an error will be thrown by the XBRL parser.

Therefore, we feel that validation rules LR_bv0119 to LR_bv0124 are unnecessary.

Recommendations

Remove validation rules LR_bv0119 to LR_bv0124.

