



BANK OF ENGLAND

A loan-level data collection for buy-to-let lending

Technical documentation

V3.5 July 2021

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Change History

Document Version	Change	Pages	Comment
3.0			Schema created
3.1	Change History added	3	No impact on schema
3.1	RevisionNumber Constraint / Description corrected	7	No impact on schema
3.1	Business Validation Rule numbering updated	21	No impact on schema
3.1	Clarification to Submission and Resubmission Process: TransStatus	23	No impact on schema
3.1	BV018, BV031 updated	21	No impact on schema
3.1	'Type of Security Assessment' updated to 'TypeSecurityAssmnt'	14	No impact on schema
3.2	'Submission and Resubmission Process: Resubmissions' section clarified	23	No impact on schema
3.3	Validation added to "FirmName"	7	No impact on schema
3.3	Validation added to "DateOfReturn"	7	No impact on schema
3.3	'Submission and Resubmission Process: Resubmissions' section clarified	23	No impact on schema
3.4	Validation changed for "InitialGrossIntRate" and "StressTestedInterestRate" to remove the restriction between 0 and 20	13	Schema created
3.5	Enumeration list for TypeofDwelling amended to remove the option of M: Multiple Properties	19	
3.5	'TransStatus' constraint amended to remove 'deleted' from the list of options	11, 19	
3.5	'Submission and Resubmission Process: Resubmissions' section clarified to amend the process for deleted loans in the submission	23	
3.5	Removed "monetary" from the Constraint Description for AssessedPortfolioICR, AssessedPortfolioDSCR and AssessedPortfolioLTV.	13, 14	No impact on schema

Introduction

This document details the XML schema specification for the Buy-to-Let reporting requirements for the Bank of England as well as the business and technical validation rule checks that would be executed outside of the schema.

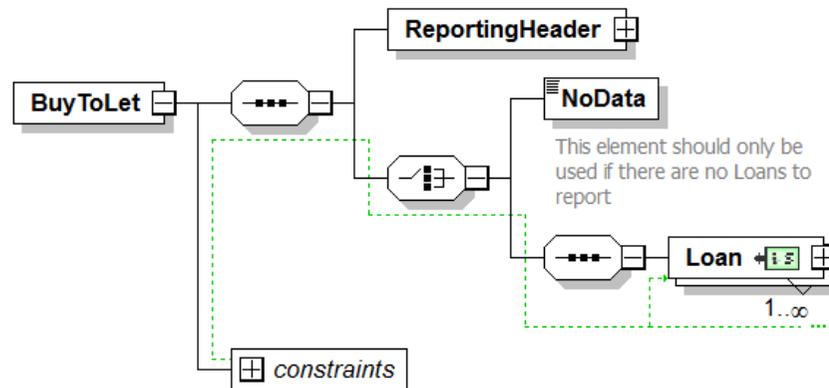
XML Schema Definition

<BuyToLet> Root Element

The <BuyToLet> message is sent by the reporting agents to the Bank of England.

The <BuyToLet> message definition is comprised of two main parts as shown by the diagram below

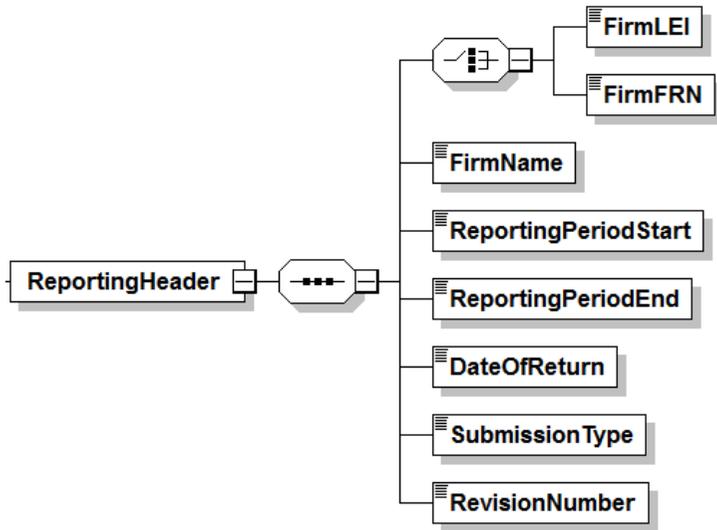
1. Reporting Header – this provides elements specific to the message
2. Loan – this provides the detail of buy-to-let loans reported



Or	Message Element (XML Tag)	Cardinality	Type	Constraint / Description
	BuyToLet	[1...1]		
	<u>ReportingHeader</u>	[1...1]		
{	NoData	[1...1]	<u>nodata</u>	<p>If there is no data to report, use this element and set to a value of 'Y' to represent yes. <u>See definition.</u></p> <p>Reporting agents must explicitly declare they are not reporting any data for a given period.</p>
Or}	Loan	[1...*]		<p>If there is data to report, a reporting agent must use the Loan element and populate all fields as specified in the next section.</p> <p>Each instance of the Loan element must have an attribute of @RowId completed. For each instance of the Loan element, the @RowId must be incremented by 1 and must be unique.</p>

<ReportingHeader> Element

The reporting header defines some basic information provided by the reporting agent that is related to the report. This is shown in the diagram below.



Attribute	Or	Message Element (XML Tag)	Cardinality	Type	Constraint / Description
		ReportingHeader	[1...1]		
Submitting Firm Reference	{	FirmLEI	[1...1]	<u>lei</u>	20 character legal entity identifier code of the reporting agent e.g. YUEDD7W89PH0FV8Q2S28 <u>It is the strong preference of the Bank that the LEI is used over a FRN.</u>
	Or }	FirmFRN	[1...1]	<u>frn</u>	6 or 7 character firm reference number of the reporting agent issued by the FCA e.g. 234567 or 2345678

					<u>N.B Either the FRN or LEI above can be supplied. It is the strong preference of the Bank that the LEI is used however if not available a FRN should be used.</u>
		FirmName	[1...1]	string	Complete legal entity name of the reporting agent. This must match the reporting entity name on the firm profile on BEEDS.
		ReportingPeriodStart	[1...1]	<u>isodate</u>	This is the start date of the reporting period. This must be in the format YYYY-MM-DD
		ReportingPeriodEnd	[1...1]	<u>isodate</u>	This is the end date of the reporting period. This must be in the format YYYY-MM-DD
		DateOfReturn	[1...1]	<u>isodatetime</u>	This is the current date and timestamp for the submitted or resubmitted return. Timestamp must be in the format YYYY-MM-DDTHH:MM:SSZ. The date must match the current date.
		SubmissionType	[1...1]	<u>submission</u>	Indicates if the submission is the original submission or a resubmission. This is restricted via an enumerated list of options. <u>Please see the enumeration list here.</u>
		RevisionNumber	[1...1]	integer	This indicates the revision number of the submission. For the original submission the value should be 0 however for resubmissions this value should be incremented for each resubmission of the same data.

<Loan> Element
 Diagram - Part 1

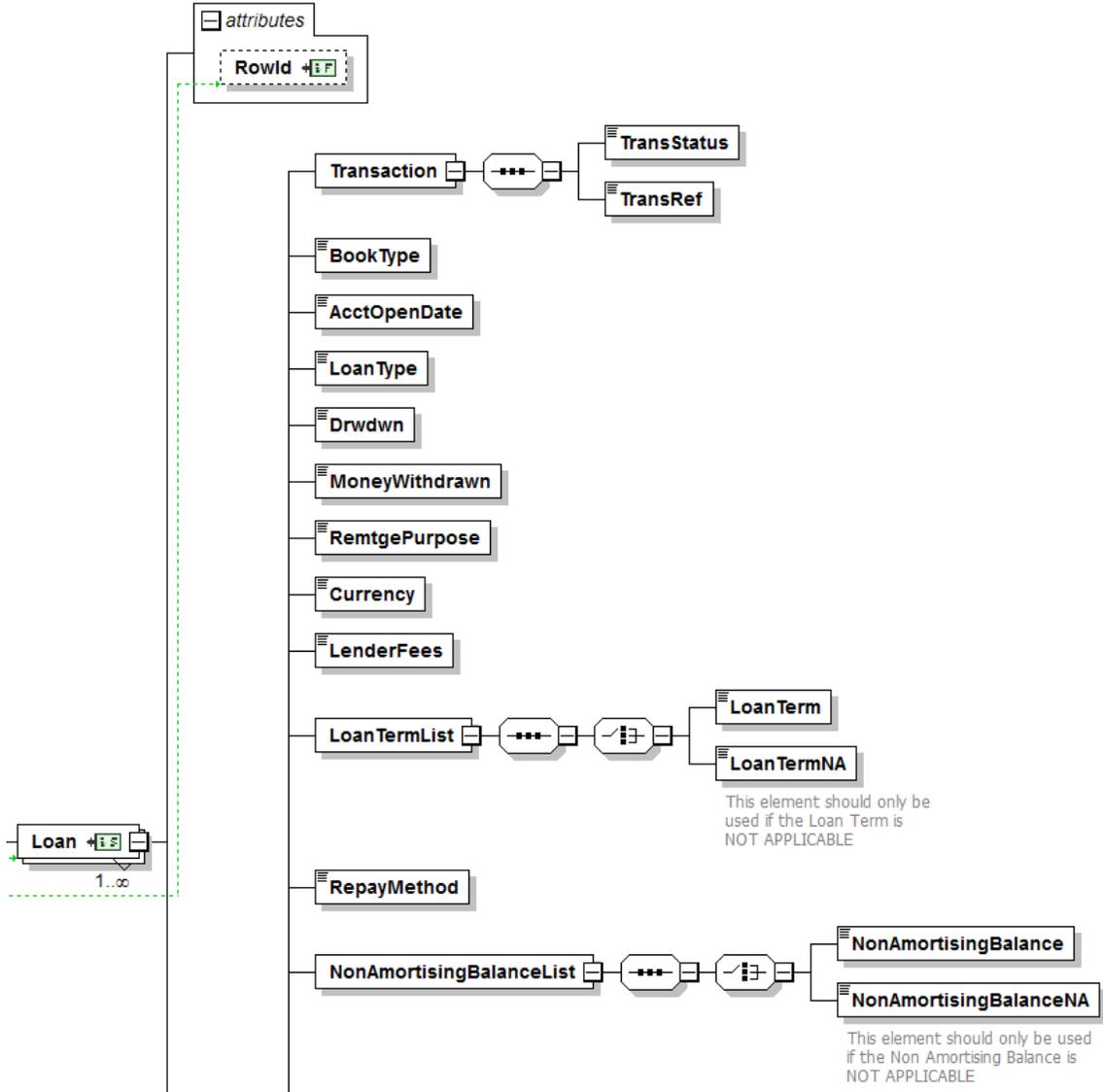


Diagram - Part 2

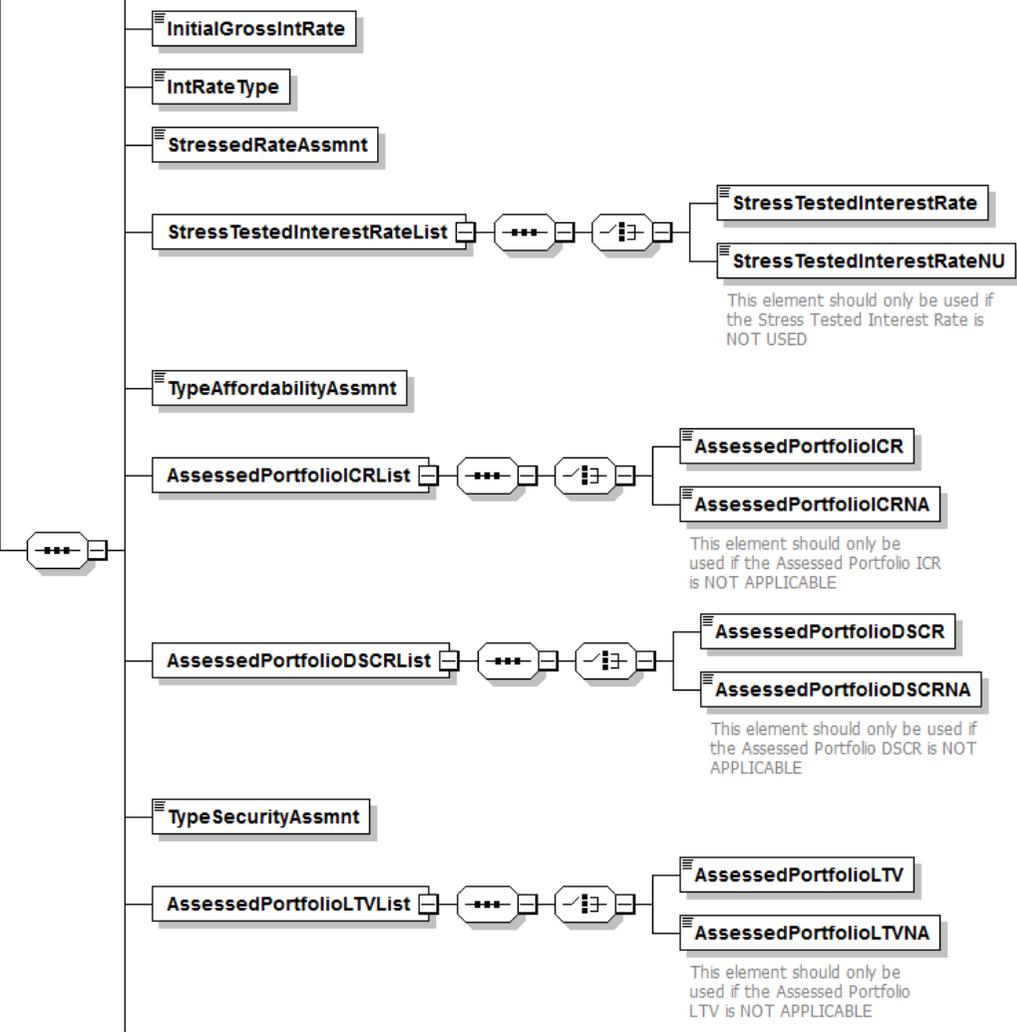
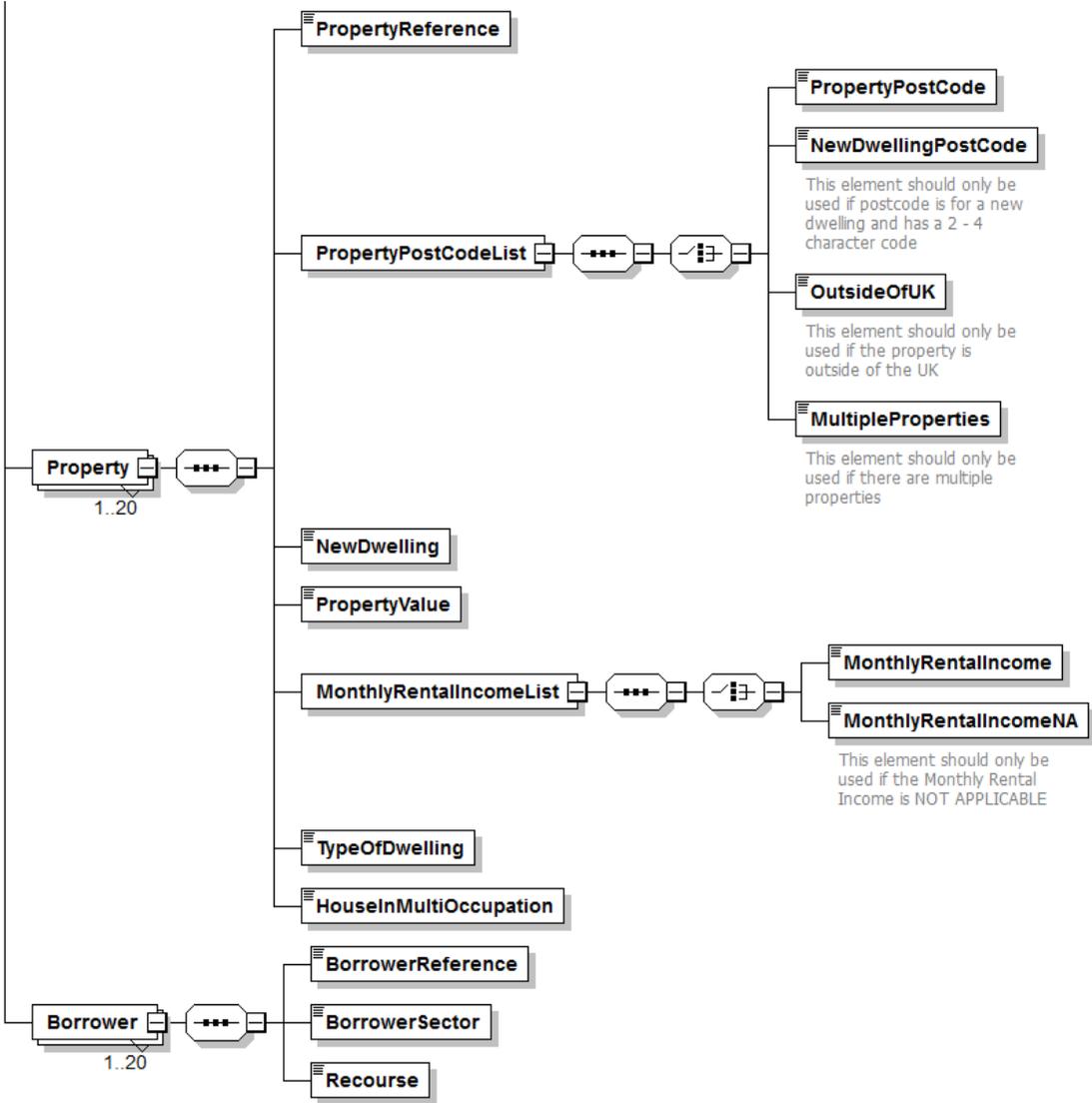


Diagram - Part 3



For each loan the following elements must be reported.

Attribute	Or	Message Element (XML Tag)	Cardinality	Type	Constraint / Description
		Loan	[1...*]		Each instance of the Loan element must have an attribute of @RowId completed. For each instance of the Loan element, the @RowId must be incremented by 1 and must be unique.
		Transaction	[1...1]		
		TransStatus	[1...1]	<u>txstatus</u>	Indicates whether the loan reported is a new or corrected item. A combination of the transaction status element, transaction reference and reporting period determine how to process this record. This is restricted via an enumerated list of options. <u>Please see the enumeration list here.</u>
Transaction Reference		TransRef	[1...1]	<u>txref</u>	Maximum 20 character alphanumeric character code
Book Type		BookType	[1...1]	<u>booktype-phase1</u>	Indicates the book type of the loan. This is restricted to C which represents the value CORPORATE. This is restricted via an enumerated list of options. <u>Please see the enumeration list here.</u>
Account Open		AcctOpenDate	[1...1]	<u>lsodate</u>	Date must be in the format

Date					YYYY-MM-DD
Loan Type		LoanType	[1...1]	<u>loantype</u>	Indicates a loan type. This is restricted via an enumerated list of options. <u>Please see the enumeration list here.</u>
Drawdown		Drwdwn	[1...1]	<u>monetarynonneg</u>	Must be a non-negative monetary value
Extra Money Lent		MoneyWithdrawn	[1...1]	<u>monetarynonneg</u>	Must be a non-negative monetary value
Purpose of Additional Funds		RemtgePurpose	[1...1]	<u>remortgagepurpose</u>	Indicates the purpose of additional funds. This is restricted via an enumerated list of options. <u>Please see the enumeration list here.</u>
Currency		Currency	[1...1]	<u>currency</u>	Indicates the currency. This is restricted via an enumerated list of options. <u>Please see the enumeration list here.</u>
Lender Fee Amount		LenderFees	[1...1]	<u>monetarynonneg</u>	Must be a non-negative monetary value
		LoanTermList	[1...1]		
Loan Term	{	LoanTerm	[1...1]	<u>loanterm</u>	Must be a value between 0 and 999 inclusive, where the value represents the number of months.
Loan Term NA	Or}	LoanTermNA	[1...1]	<u>boolean</u>	This element should only be used if Loan Term is NOT APPLICABLE and should be set to true.
Repayment Method		RepayMethod	[1...1]	<u>repaymentmethod</u>	Indicates the repayment method. This is restricted via an enumerated list of options. <u>Please see the enumeration list here.</u>
		NonAmortisingBalanceList	[1...1]		
Non-amortising balance	{	NonAmortisingBalance	[1...1]	<u>monetarynonneg</u>	Must be a non-negative monetary value
Non-amortising	Or}	NonAmortisingBalanceNA	[1...1]	<u>boolean</u>	This element should only be used if Non-

balance NA					amortising balance is NOT APPLICABLE and should be set to true.
Initial Gross Rate		InitialGrossIntRate	[1...1]	<u>percentagemax20</u>	A percentage value to 2 decimal places
Interest Rate Type		IntRateType	[1...1]	<u>interestratetype</u>	Indicates the type of interest rate. This is restricted via an enumerated list of options. <u>Please see the enumeration list here.</u>
Stressed Rate Assessment		StressedRateAssmnt	[1...1]	<u>stressedrateassmnt</u>	Indicates the Stressed Rate Assessment. This is restricted via an enumerated list of options. <u>Please see the enumeration list here.</u>
		StressTestedInterestRateList	[1...1]		
Stressed Rate (%)	{	StressTestedInterestRate	[1...1]	<u>percentagemax20</u>	A percentage value to 2 decimal places
Stressed Rate NU	Or}	StressTestedInterestRateNU	[1...1]	<u>boolean</u>	This element should only be used if the Stressed Rate is NOT USED and should be set to true.
Type of Affordability Assessment		TypeAffordabilityAssmnt	[1...1]	<u>affordabilityassmnt</u>	Indicates the affordability assessment type. This is restricted via an enumerated list of options. <u>Please see the enumeration list here.</u>
		AssessedPortfolioICRList	[1...1]		
Assessed Portfolio ICR	{	AssessedPortfolioICR	[1...1]	<u>nonneg</u>	Must be a non-negative value
Assessed Portfolio ICR NA	Or}	AssessedPortfolioICRNA	[1...1]	<u>boolean</u>	This element should only be used if the Assessed Portfolio ICR is NOT APPLICABLE and should be set to true.
		AssessedPortfolioDSCRLList	[1...1]		
Assessed Portfolio DSCR	{	AssessedPortfolioDSCR	[1...1]	<u>nonneg</u>	Must be a non-negative value
Assessed Portfolio	Or}	AssessedPortfolioDSCRNA	[1...1]	<u>boolean</u>	This element should only be used if the Assessed

DSCR NA					Portfolio DSCR is NOT APPLICABLE and should be set to true.
Type of Security Assessment		TypeSecurityAssmnt	[1...1]	<u>typesecurityassmnt</u>	Indicates the affordability assessment type. This is restricted via an enumerated list of options. Please see the enumeration list here.
		AssessedPortfolioLTVList	[1...1]		
Assessed Portfolio LTV		AssessedPortfolioLTV	[1...1]	<u>nonneg</u>	Must be a non-negative value
Assessed Portfolio LTV NA		AssessedPortfolioLTVNA	[1...1]	<u>boolean</u>	This element should only be used if the Assessed Portfolio LTV is NOT APPLICABLE and should be set to true.
Property Reference		PropertyReference	[1...1]	<u>txref</u>	Maximum 20 character alphanumeric character code
		PropertyPostcodeList	[1...1]		
Property Post Code	{	PropertyPostCode	[1...1]	<u>postcode</u>	A 5 – 7 character postcode with no spaces
		NewDwellingPostCode	[1...1]	<u>newdwellingpostcode</u>	In the case of a new dwelling, this element must be used and a 2 – 4 character code entered.
	Or	OutsideOfUK	[1...1]	<u>boolean</u>	If the property is outside of the UK, this element must be used and the value must be set to true.
	}	MultipleProperties	[1...1]	<u>boolean</u>	If there are multiple properties, this element must be used and the value must be set to true.
New Dwelling		NewDwelling	[1...1]	<u>newdwelling</u>	Indicates whether the property is a new or existing dwelling. This is restricted via an enumerated list of options. Please see the enumeration list here.
Property Value		PropertyValue	[1...1]	<u>monetarynonneg</u>	Must be a non-negative monetary value

		MonthlyRentalIncomeList	[1...1]		
Monthly Rental Income	{	MonthlyRentalIncome	[1...1]	<u>monetarynonneg</u>	Must be a non-negative monetary value
	Or}	MonthlyRentalIncomeNA	[1...1]	<u>boolean</u>	This element should only be used if the Monthly Rental Income is NOT APPLICABLE and should be set to true.
Type of Dwelling		TypeOfDwelling	[1...1]	<u>typeofdwelling</u>	Indicates the type of dwelling. This is restricted via an enumerated list of options. <u>Please see the enumeration list here.</u>
House in Multiple Occupation		HouseInMultiOccupation	[1...1]	<u>houseinmultioccupation</u>	Indicates whether the house is in multiple occupation. This is restricted via an enumerated list of options. <u>Please see the enumeration list here.</u>
		Borrower	[1...20]		For each loan there can be a minimum of 1 property to a maximum number of 20 borrowers reported.
Borrower Reference		BorrowerReference	[1...1]	<u>txref</u>	Maximum 20 character alphanumeric character code.
Borrower Sector		BorrowerSector	[1...1]	<u>borrowersector</u>	Indicates the sector of the borrower. This is restricted via an enumerated list of options. <u>Please see the enumeration list here.</u>
Recourse		Recourse	[1...1]	<u>recourse</u>	Indicates the recourse. This is restricted via an enumerated list of options. <u>Please see the enumeration list here.</u>

XML Schema Simple Type Definitions - Enumerations

affordabilityassmnt

Code	Description
I	ICR of an individual loan
D	DSCR of an individual loan
W	ICR or DSCR of wider portfolio
P	Other income of wider portfolio
F	Other source of income/wealth
C	Combination of affordability assessment types
NA	Not assessed

booktype-phase3

Code	Description
C	Corporate

borrowersector

Code	Description
I	Individual
U	Unincorporated business
S	SME
L	Large PNFC
O	Other

currency

Code	Description
GBP	Pounds sterling
EUR	Euros
USD	US dollar
JPY	Japanese yen
OTH	Other foreign currency

houseinmultioccupation

Code	Description
Y	Yes
N	No
NK	Not known
NA	Not applicable

interestratetype

Code	Description
F	Fixed rate
L	Floating Rate
O	Other

loantype

Code	Description
HP	Purchase of residential property for letting
IR	Improvements to rental property
RE	Refinancing
FA	Further advance
SC	Second charge
O	Other use
NK	Not known

newdwelling

Code	Description
N	New dwelling
E	Existing dwelling
NK	Not known
NA	Not applicable

nodata

Code	Description
Y	YES

recourse

Code	Description
G	Loan is subject to a personal guarantee
R	Lender has recourse to other assets
B	Both
N	Neither

remortgagepurpose

Code	Description
E	Extra funds lent to purchase residential property for letting
I	Extra money lent for improvements to rental property
O	Extra funds lent for other use
NA	Not applicable
NE	No extra money lent
NK	Not known

repaymentmethod

Code	Description
C	Capital and interest
I	Interest only
M	Part and part

stressedrateassmnt

Code	Description
I	Based on the individual loan
W	Based on the wider portfolio
B	Based on both the individual loan and the wider portfolio
NU	Not used

submission

Code	Description
O	Original submission
R	Resubmission

txstatus

Code	Description
NEW	New loan
CORR	Corrected loan. Use this enumeration to explicitly indicate the details of a previously reported load were erroneous and require correction. If correcting a previously reported loan, you must provide the transaction reference and the reporting period for the record you are correcting.
DEL	Deleted loan. Use this enumeration to indicate a previously reported loan should be deleted. If deleting a previously reported loan, you must provide the transaction reference and the reporting period (quarter and year) for the record you are deleting.

typeofdwellling

Code	Description
X	House: all
F	Converted flat or maisonette
P	Purpose-built flat or maisonette
A	Flat: type unknown
U	Multi-unit freehold blocks (MUFBs)
C	Part-commercial (i.e. a flat above a shop)
O	Other
NK	Not known
NA	Not applicable

typesecurityassmnt

Code	Description
I	Solely on Individual loan
W	Solely on wider portfolio
R	Recourse to other assets
C	Combination of security assessment types
NA	Not assessed

XML Schema Simple Type Definitions – Restrictions

frn

Type	Restriction
String	Can be 6 or 7 characters

isodate

Type	Restriction
Date	Must be in YYYY-MM-DD format

isodatetime

Type	Restriction
dateTime	Must be in YYYY-MM-DDTHH:MM:SSZ format

lei

Type	Restriction
String	Must be 20 characters

monetarynonneg

Type	Restriction
Decimal	Must not be < 0.00

loanterm

Type	Restriction
Integer	Must be between 0 and 999 inclusive

newdewllingpostcode

Type	Restriction
String	Must be 2 – 4 characters without spaces

percentagemax20

Type	Restriction
Decimal	Must be a value ≥ 0 and ≤ 20 to 2 decimal places

postcode

Type	Restriction
String	Must be 5 – 7 characters long without spaces

txref

Type	Restriction
String	Must be 1 - 20 alphanumeric characters

Non Schema - Business Validation Checks

The reports produced must conform to the business validation rule checks listed below:

Business Validation Code	Business Validation Rule
BV005	If $\langle \text{OutsideOfUK} \rangle = \{ \text{true} \}$ Then $\langle \text{NewDwelling} \rangle = \{ \text{NA} \}$
BV007	If $\langle \text{OutsideOfUK} \rangle = \{ \text{true} \}$ Then $\langle \text{MonthlyRentalIncomeNA} \rangle = \{ \text{true} \}$
BV009b (previously BV009)	If $\langle \text{OutsideOfUK} \rangle = \{ \text{true} \}$ Then $\langle \text{TypeOfDwelling} \rangle = \{ \text{NA} \}$
BV012	If $\langle \text{NewDwelling} \rangle = \{ \text{E} \}$ Then $\langle \text{NewDwellingPostCode} \rangle$ MUST NOT Exist
BV014	$\langle \text{ReportingPeriodStart} \rangle < \langle \text{ReportingPeriodEnd} \rangle$
BV015	$\langle \text{AcctOpenDate} \rangle \geq \langle \text{ReportingPeriodStart} \rangle$ AND $\langle \text{AcctOpenDate} \rangle \leq \langle \text{ReportingPeriodEnd} \rangle$
BV018 (rule updated)	If $\langle \text{OutsideOfUK} \rangle = \{ \text{true} \}$ Then $\langle \text{HouseInMultiOccupation} \rangle = \{ \text{NA} \}$
BV027	If $\langle \text{RepayMethod} \rangle$ is $\{ \text{C or I} \}$ Then $\langle \text{NonAmortisingBalanceNA} \rangle = \{ \text{true} \}$
BV028	If $\langle \text{StressedRateAssmnt} \rangle$ is $\{ \text{NU} \}$ Then $\langle \text{StressTestedInterestRateNU} \rangle = \{ \text{true} \}$
BV029	If $\langle \text{TypeAffordabilityAssmnt} \rangle$ is $\{ \text{I, D, P, F or NA} \}$ Then $\langle \text{AssessedPortfolioICRNA} \rangle = \{ \text{true} \}$
BV030	If $\langle \text{TypeAffordabilityAssmnt} \rangle$ is $\{ \text{I, D, P, F or NA} \}$. Then $\langle \text{AssessedPortfolioDSCRNA} \rangle = \{ \text{true} \}$
BV031 (rule updated)	If $\langle \text{TypeSecurityAssmnt} \rangle$ is $\{ \text{I, R or NA} \}$ Then $\langle \text{AssessedPortfolioLTVNA} \rangle = \{ \text{true} \}$

BV032	If <LoanType> = {HP, IR, FA or SC} Then <MoneyWithdrawn> = {0}
BV033	If <LoanType> = {HP or IR} Then <RemtgePurpose> = {NA}
BV034	If (<LoanType> = {RE} AND <MoneyWithdrawn> = {0}) Then <RemtgePurpose> = {NE}

Non Schema – Technical Validation Checks

The reports produced must conform to the technical validation rule checks listed below:

Technical Validation Code	Technical Validation Rule
TV003	If <MonthlyRentalIncomeNA> Exists Then < MonthlyRentalIncomeNA > = {true}
TV005	If <SubmissionType> = {O} Then <RevisionNumber> = {0}
TV006	If <SubmissionType> = {R} Then <RevisionNumber> >= {1}
TV009	If <OutsideOfUK> Exists Then <OutsideOfUK> = {true}
TV020	If < LoanTermNA> Exists Then < LoanTermNA> = {true}
TV021	If <NonAmortisingBalanceNA> Exists Then <NonAmortisingBalanceNA> = {true}
TV022	If <StressTestedInterestRateNU> Exists Then <StressTestedInterestRateNU> = {true}
TV023	If <AssessedPortfolioICRNA> Exists Then <AssessedPortfolioICRNA> = {true}
TV024	If <AssessedPortfolioDSCRNA> Exists Then <AssessedPortfolioDSCRNA> = {true}
TV025	If <AssessedPortfolioLTVNA> Exists Then <AssessedPortfolioLTVNA> = {true}
TV026	If <MultipleProperties> Exists Then <MultipleProperties> = {true}

Submission and Resubmission Process

- Data must be reported for a given reporting period e.g. where
 - <ReportingPeriodStartDate> is 2017-01-01
 - <ReportingPeriodEndDate> is 2017-03-31
- ORIGINAL submissions for the reporting period as identified by the <SubmissionType> element must only contain new (NEW) loans in the reporting period.
- For an ORIGINAL submission the <RevisionNumber> should be 0.
- RESUBMISSIONS for the reporting period as identified by the <SubmissionType> element can contain the following in the <TransStatus> element:
 - New (NEW) loans added since the previous submission as well as new loans reported in a previous submission and unchanged since.
 - Corrected (CORR) loans since the previous submission i.e. those that need to be corrected for the previous submission for the reporting period. Corrections will only work if there is consistency and uniqueness between the reporting start and end dates as well the Transaction Reference.
 - ~~Deleted (DEL) loans since the previous submission.~~
- Loans must be deleted by removing the loan from the xml For each RESUBMISSION the revision version number should start at 0 and be incremented by 1 per revision.
- RESUBMISSIONS apply at a file level and must contain new and corrected loans since the previous submission i.e. it will include all previously reported new, still marked as new, loans aside from those now marked as corrections, which would be indicated as such. Please note:
 - A loan cannot appear twice (or more) in the same file as both new and then corrected in a different record.
 - If a loan is deleted from the xml, it should not appear as new in a different record, except when correcting and resubmitting a file that mistakenly contained a duplicated loan. In this case, the corrected file should contain only one instance of the loan, marked NEW or CORR.
 - If a loan is deleted from the xml, it should not appear as corrected in a different record.
- Data can only be submitted or re-submitted for a given reporting period i.e. data from 2017-01-01 to 2017-03-31 in a single file.
- Multiple reporting periods cannot be reported in a single submission i.e. data from 2017-01-01 to 2017-03-31 cannot be reported with data from 2017-04-01 to 2017-06-30 in single file.
- Partial resubmissions are not accepted. All data must be resubmitted again.
- The number of loans in a resubmission must be greater than or equal to that in the original or previous submission, unless loans have been deleted from the xml.