CRE data delivery agreement

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DeNederlandscheBank

EUROSYSTEEM

Commercial Real Estate data delivery agreement

Owner: Statistics Division
Manager Monetary and Banking Statistics Department

DNB-public

Version 1.1.4

DNB-GLO-CODE:
DNB_STAT_CRE_GLO_K

SUMMARY OF VERSIONS AND STATUS

Version history

Version	Date	Comment	Author(s)
0.7	16 March 2018	First version of this document based on DDA template	Iris Balemans
0.8	18 May 2018	Second version of this document. Main changes are some new entities: accounting data, Dutch counterparty, financial data and EAD model	Iris Balemans
1.0	27 July 2018	Final version of this document.	Iris Balemans
1.0.1	12 September 2018	Implemented some small changes in the LDM and updated this DDA	Iris Balemans
1.0.2	24 December 2018	New updates, mostly because of updates in AnaCredit. The logius issued message name has changed as well.	Iris Balemans
1.0.3	16 January 2019	Update because of wrong placement of attributes	Iris Balemans
1.0.4	13 March 2019	Update to simplify the model (attributes adjusted/added/removed, entities deleted) and to make it consistent with AnaCredit	Iris Balemans
1.1.1	2 May 2019	Update to fix a few small issues that the reporting agents kindly pointed out to us. The file immovable_property_rental_contract.csv is added and the file delivery.csv is removed.	Arjan Bos
1.1.3	2 December 2019	Update with a lot of small changes to the logical data model to upgrade the quality of the documentation.	Arjan Bos
1.1.4	31 August 2020	Removed two business rules, both were superfluous.	Arjan Bos

Contents

1 DATA DELIVERY AGREEMENT

1.1 Subject of the agreement

This agreement enables the delivery of granular data on loans granted with the purpose of income production commercial real estate (hereafter CRE).

This agreement sets out the arrangements concerning:

- the data to be delivered, and the delivery medium, format and frequency;
- the conditions and terms to be met by reporting agents towards DNB;
- the conditions and terms to be met by DNB towards the reporting agents, and
- changes to the agreement.

1.2 Reference documents

Document	Data-classificatie	URL
CRE reporting manual Part I – General Methodology	DNB-public	https://www.dnb.nl/statistiek/digitaal-loket-rapportages/statistische-rapportages/banken/commercial-real-estate-cre/index.jsp#
CRE reporting manual Part II – Entities and data attributes	DNB-public	https://www.dnb.nl/statistiek/digitaal-loket-rapportages/statistische-rapportages/banken/commercial-real-estate-cre/index.jsp#
Reporting population and reference population	DNB-public	https://www.dnb.nl/statistiek/digitaal-loket-rapportages/statistische-rapportages/banken/commercial-real-estate-cre/index.jsp#

1.3 Data delivery specifications

An overview of the design, run and control processes of the data exchange for CRE is depicted in Figure 1.

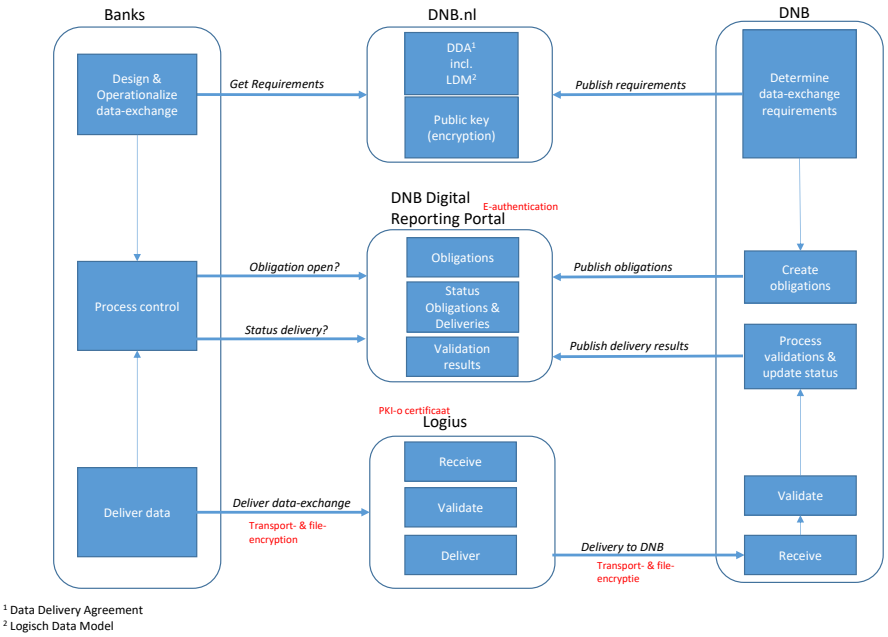

Figure 1: Design, Run and Control overview of CRE data exchange

Global description of the process:

- DNB determines the CRE data-exchange specifications (Data Delivery Agreement, Logical Data Model);
- DNB publishes these specifications, including the public encryptionkey on the website of DNB;
- Banks use this information to operationalize the CRE data exchange;
- DNB publishes the CRE data-exchange obligations in the DNB Digital Reporting Portal;
- Banks have secure access to the DNB Digital Reporting Portal where they can view the obligation;
- Banks deliver the CRE data exchange files to Logius. Transport as well as files are encrypted;
- Logius receives the data, performs a number of technical checks and send a delivery notification back to the bank. Subsequently Logius pushes the data to DNB;
- DNB receives the data, performs a number of technical and logical validations, updates the status of the obligation and publishes the outcome of these validations to the DNB Digital Reporting Portal;
- Designated (by the bank) employees will receive a notification;
- Banks can view these outcomes (and status) in the DNB Digital Reporting Portal.

Globally, the total data delivery has the features described below. Chapter 2 discusses the delivery of each file in greater detail.

1.4 Quarterly delivery

Reporting agents submit data quarterly. Reporting agents are therefore asked and expected to make a data delivery at the end of each quarter.

1.5 Data quality strategy

In the context of data exchanges, there is always a trade-off between the desire to process data as quickly as possible and the requirement to meet the standards concerning data before they are

made available. A high degree of availability often compromises checks, with all its consequences for the quality of the data and, consequently, their use and interpretation. Another factor to consider is cost's, which is often incurred downstream to make the data fit for the purpose.

In striking a balance between these two requirements, DNB has adopted the following approach:

- the validation rules used to determine the acceptance of the delivery obligation (2.5) and with which parties in the chain can prove without doubt that they are able to meet the delivery obligation;
  - [1] a number of checks that are technical in nature (Logius subscription, XML validity, PKI-o validity, existence recipient, valide MIME, etc..)
  - [2] a reporting requirement for a reporting period in the Digital Reporting Portal of DNB (imperative check)
  - [3] a file structure specification as described in the Data Delivery Agreement (structure check)
  - [4] a highly specified and formalised logical data model (3.2) which specifies explicitly all the blocking validation rules (constraints, Appendix A) within the data delivery set;
  - [5] on top of that, a list of validation rules (Appendix B) that are not explicitly modelled[1] but are checked and reported on:
- there is a category of validation rules that are labelled as 'signalling', meaning potentially blocking;[2]
- reporting agents are informed as soon as possible with regard to the blocking validation results if a delivery cannot be accepted, subsequently the delivery is not accepted. When the reporting agent meets the blocking validation rules, it has met its delivery obligation;
- reporting agents are informed about the results of signalling rules – the delivery will be accepted; informing reporting agents allows reporting agents to start improving their internal processing chain/data quality;
- having accepted a data delivery, DNB conducts checks that involve other data than the data delivered, these rules are labelled as 'signalling' and are stated in appendix B;
- signalling rules may require resubmission, i.e. an obligation to resubmit data for a period for which data were submitted earlier.

  Please note that also data deliveries which can not be validated will be administered for management information purposes.

1.6 Reporting agent's responsibilities/obligations

The reporting agent undertakes the required actions to:

- enable access to DNBs Digital Reporting Portal;
- have a working connection with Logius;
- deliver and, if necessary, redeliver data in accordance with the applicable specifications;
- arrange for the data to be protected from access by unauthorised individuals;
- notify DNB in advance if it is unable to deliver the data by the specified deadline, i.e. 4 p.m. on the penultimate day of the period within which the data delivery must be made;
- deliver data in accordance with the applicable requirements (including delivery deadlines) until the validation rules are met;

[1] Also rules that are somewhat implicit in the logical data model have been explicity repeated in Appendix A and B, e.g. specialisation model constraints

[2] This means that they initially have a warning status (and do not affect the acceptance of the delivery) but are intended to eventually turn into blocking rules.

- provide information in case plausibility analyses prompt DNB to request a clarification;
- keep an archive of CRE data that has been exchanged for a period of 5 years;
- comply with requests for resubmission.

DNB expects to receive data directly (via Logius) from the banks. Currently, it is not allowed to submit data to intermediaries.

1.7 DNB's responsibilities/obligations

DNB will adequately specify the requirements to enable reporting agents to meet these.

DNB will notify reporting agents of data delivery issues, including:

- blocking validation rules (see paragraph 2.5 for details):
  - *technical:* is the incoming data technically compliant with regard to Logius requirement (subscription, PKI-O, etc..) and DNB (decryption, unzipping, etc..?
  - *administrative*: is the incoming data delivery in line with the requirements set by DNB?
  - *structure*: do the deliveries comply with the required naming and structure?
  - *logical*: do the data meet the validation rules of the logical data model and is the data delivery complete?
- If possible, automated feedback is given on signalling validation rules.
- Feedback on plausibility checks[3] in case DNB requires additional information after evaluating the results of plausibility checks.

DNB will arrange for the prescribed data protection measures in accordance with the information classification level.

1.8 Compliance framework

This section will describe when reporting agents are not compliant and what implications this has.

The reporting agent is responsible for all of the data they submitted, or should have submitted to DNB. All data that DNB receives via other sources, like the counterparty reference data of Dutch counterparties from the national statistics institute CBS, is not the responsibility of the reporting agent. Any question that DNB has on data received from the reporting agent is for the reporting agent to answer. Questions on data received from other sources are the responsibility of those sources and are not the responsibility of the reporting agent.

1.9 Data ownership and information classification

Subject	Who/what
Owner within DNB:	Statistics Division, Monetary and Banking Statistics Department Manager

Criticality assessment performed (Y/N)	By	Result
Yes	Data owner DNB	DNB-CONFIDENTIAL

[3] The first priority is to provide feedback on blocking validation rules. DNB's ambition is to also distribute feedback reports on signalling validation rules, with a view to preparing reporting institutions for validation rules that will *eventually* turn into blocking rules.

DNB classification	Explanatory notes
DNB-PUBLIC	Information classified as **DNB-PUBLIC** is accessible to all stakeholders within and outside of DNB.
DNB-UNRESTRICTED	Access to information classified as **DNB-UNRESTRICTED** must be limited exclusively to persons employed by or performing work at DNB.
DNB-RESTRICTED	Information classified as **DNB-RESTRICTED**, can be made accessible to persons who are involved in the matter or would benefit from a general awareness of it in accordance with the rules of DNB.
DNB-CONFIDENTIAL	For information classified as **DNB-CONFIDENTIAL**, access should be limited to persons who "need to know", i.e. those who require the information for the proper performance of professional duties. "Need to know" should be interpreted broadly enough to enable staff to (a) access information relevant to their tasks; and (b) take over tasks from colleagues with minimal delay in the event of absences. "Need to know" access should be authorised at the appropriate level within DNB.
DNB-SECRET	For information classified as **DNB-SECRET**, access should be strictly limited to persons who are directly involved in the matter and whose "need to know" access is explicitly authorised, to the extent possible in a traceable way, at the appropriate level within DNB.

Subject	Required?	Explanatory notes
Encryption	Yes	Data transport will be encrypted from the transporter to DNB. Data encryption is the transporter's responsibility and DNB will oversee it. Data transport encryption from the reporting agent to the transporter is the reporting agent's responsibility. For now, data encryption of the files is not in scope.
Anonymisation	Not allowed	Anonymisation does not apply. CRE data are not related to natural persons.

1.10 Changes to the agreement

In the event of changes to the agreement, the procedure described in section 5.3 (Changes to the agreement) is followed.

1.11 Administrative processing

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Although great care has been put into creating the logical data model and supporting documents, no guarantee can be given with regards to the technical correctness of the contents.

List of documents applying to the data delivery agreement:

Document	Remarks
Data delivery agreement	This document
DNB CRE Business Terms	Ontology and reference data sets
DNB CRE Validation Rules	
Reporting population and reference population	
Logical datamodel CRE	Report of the Logical data model
CRE GLO LDM	Powerdesigner file containing the LDM
CRE Release Notes	List of changes to the DDA, the LDM and the business terms
DNB aansluitspecificaties en documentatie logius	Detailed information about delivery of data to DNB using Logius Digipoort

1.12 Data integrity

The demands regarding the integrity of CRE data are classified as **very high**. As such, the following measures are taken to ensure compliance:

- The CRE data exchange is encrypted in transport as well as in rest. Files are encrypted using a DNB public key (AES-256) where the private key is only in possession of the DNB statistics division.
- The pay-out file needs to consist of a deterministic number of files, DNB will validate the number of delivered files;
- The files are hashed and the hash needs to be calculated by the banks upon delivery. DNB will validate these hashes when receiving the files, to ensure the files have been received exactly as the banks have send it.
- The content of the data is hashed as well and the has needs to be calculated by the banks upon delivery. DNB will validate these completeness-hashes to ensure the data is received by DNB exactly as the banks have sent it.

2 FILE DELIVERY SPECIFICATIONS

2.1 Deliveries and files for each data delivery agreement

This section sets out the relationship between each DDA code/file interface and the related files. The file interfaces and files are specified below. The following tables list the files that must be reported under the DDA in question. Reporting agents deliver data on the basis of *not more than* the applicable DDA.

GLO code[4]	Frequency	Source file
DNB_STAT_CRE_GLO_K	*Quarterly*	A (win)zipped container where the name of the container can be determined by the bank but must adhere to the following pattern: [a-zA-Z0-9_-] (numbers, letters, underscore and hyphen)

All files under each DDA code must be submitted, see below.

.csv files to be included in the delivery	container
dnbmetadata.xml	X
accounting_data.csv	X
address.csv	X
contract.csv	X
counterparty.csv	X
credit_card_debt_instrument.csv	X
credit_lines_other_than_revolving_credit_instrument.csv	X
creditor_instrument_data.csv	X
current_account_instrument_with_credit_limit.csv	X
debtor.csv	X
debtor_default_data.csv	X
debtor_risk_data.csv	X
debtor_instrument_data.csv	X
domestic_immovable_property.csv	X
drawn_instrument.csv	X
ead_model_contract.csv	X
ead_model_debtor.csv	X
ead_model_instrument.csv	X
entity_type_delivery.csv	X
financial_data.csv	X
fixed_term_rental_contract.csv	X
foreign_legal_entity.csv	X
immovable_property.csv	X
immovable_property_rental_contract_data.csv	X
instrument.csv	X
instrument_past_due.csv	X
instrument_protection_received_data.csv	X
interest_only_instrument.csv	X
joint_liability.csv	X
legal_entity.csv	X
lgd_model_contract.csv	X
lgd_model_debtor.csv	X
lgd_model_instrument.csv	X
non_fixed_interest_instrument.csv	X
non_land.csv	X
observed_agent_delivery.csv	X
originator_securitized_instrument_data.csv	X
other_loans_instrument.csv	X

[4] The abbreviation GLO is the Dutch translation of the data delivery agreement and translates to "gegevensleveringsovereenkomst". To enhance comprehension on DNB side when providing support, the term GLO code is used in favour of its English translation.

overdraft_instrument.csv	X
protection_provider.csv	X
protection_provider_protection_received.csv	X
protection_received.csv	X
quasi_corporation.csv	X
recognised_instrument.csv	X
rental_contract.csv	X
reporting_agent_delivery.csv	X
revolving_credit_other_than_overdrafts_and_credit_card_debt_instrument.csv	X
servicer_instrument_data.csv	X

2.2 Access to DNB Digital Reporting Portal

All agreements and requirements for CRE, the data deliveries, their statuses and the validation results are published in DNB Digital Reporting Portal. Banks are required to have access to this portal. Instructions are published on the DNB website[5].

2.3 Delivery of data to DNB using Logius Digipoort

DNB expects that the reporting agent delivers its reports via the Logius portal. In order to do this, please use the values listed below.

Variable	Value(s) to be used	Options
Logius issued message name	DNB_rapportages	DNB_rapportages
Reporter identifier	Any RIAD code (N0129)	Please use the value for your organization as published in the CRE reporting population document on the DNB website.
Data Delivery Code	ZGRACRKCREXXXX	
GLO code	DNB_STAT_CRE_GLO_K	
Hashing method	SHA-256	SHA-0, SHA-1, SHA-256, SHA-512
Encryption method	AES-256	AES, DES, Rijndael, RC2, 3DES
Data file types	CSV, semicolon separated	CSV, PDF, JSON, XML, XBRL, SDMX

Details on how to use the Logius portal, including the checks done by Logius and DNB, can be found in the document called on the CRE part of the DNB website[6].

2.4 <entity>.csv file interface

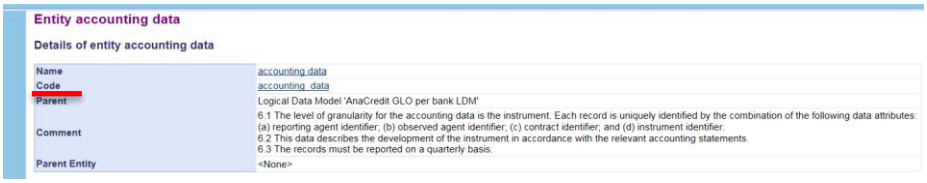
This section describes the metadata aspects of .csv files. Reporting agents must deliver one file for each of the entities described below. In addition, an exhaustive list of attributes is provided that is to be delivered for each file. As a rule, one .csv file must be submitted for each entity type in the logical data model, where only entity types that contain extra information in addition to their primary key attribute or attributes are subject to delivery. "Extra information" means an attribute of its own or a foreign key to another entity type.

[5] https://www.dnb.nl/statistiek/digitaal-loket-rapportages/algemeen/index.jsp

[6] https://www.dnb.nl/statistiek/digitaal-loket-rapportages/statistische-rapportages/banken/commercial-real-estate-cre/index.jsp

2.4.1 <entity>.csv file description (metadata)

The table below describes the metadata aspects of each .csv file.

Metadata	
Description:	See logical data model. Each entity in the logical data model represents a file (.csv). As a rule, entities without characteristics – attributes or relationships – are not required
File name:	The entity code in the logical data model is used as the file name. In this code, spaces are replaced by underscores (_)  Entity accounting data Details of entity accounting data Name: accounting data Code: accounting_data Parent: Logical Data Model 'AnaCredit GLO per bank LDM' Comment: 6.1 The level of granularity for the accounting data is the instrument. Each record is uniquely identified by the combination of the following data attributes: (a) reporting agent identifier; (b) observed agent identifier; (c) contract identifier; and (d) instrument identifier. 6.2 This data describes the development of the instrument in accordance with the relevant accounting statements. 6.3 The records must be reported on a quarterly basis. Parent Entity: <None>
Selection:	Each entity is delivered in its entirety, and must be a snapshot of the delivery date
File format:	CSV
Character set:	UTF-8
Field separator:	; (semicolon, ASCII number: 59)
Heading:	Yes, this contains the names of the columns, taking into account the field separator and the text field delimiter
End of Line indicator:	CRLF
Text field delimiter:	" (double quotation mark, ASCII number 34) Escape character: \ (backslash, ASCII number: 92) Example 1: The string with inverted commas: This is a “test” then becomes "This is a “test”" Example 2: The string with double quotation marks: That was an "error" then becomes: "That was an \"error\""
Text field format:	Free text (unless otherwise specified)
Null values:	;;
Date field delimiter:	No delimiter
Date format:	ISO 8601 format, YYYY-MM-DD
Numeric format:	Numeric fields such as amounts, percentages or chances must not contain dots (.) or commas (,). All of these must be entered in whole numbers, i.e. NNNNNNNNNNN (no leading or trailing zeros, no decimals). • Amounts in any currency must be entered in whole cents (for example 1000 euros = 100000 euro cents). • Percentages and chances must be entered in millions (5% = 0.05 = 50000) Negative numbers are preceded by a minus sign (-) Positive numbers are not preceded by a plus sign (+) The rationale for this is to prevent interpretation issues due to differences in localization settings between sending, re-transmitting and receiving systems
File integrity check	Some entities and combinations of attributes per entity require a checksum. See Section 2.7.6. Numeric fields must first be summarised and then hashed. It may be difficult to canonicalise strings; this issue is being investigated and will be specified in more detail in a later version of this document. The prescribed hash function is SHA-256

Reporting "Non-applicable"	Most attributes can be reported as "Non-applicable". This applies to situations which are inherent to the arrangements made between the creditor and the other involved parties, or they can be because of the inherent structure of the data requirements. If the logical data model indicates that the value "Non-applicable" can be reported as the value of an attribute, and when the value "Non-applicable" is indeed needed for that attribute, the value to be inserted for that attribute in the corresponding .csv file is "Non-applicable". Please note that DNB uses a strict check on both the case and the wording of "Non-applicable". Spelling it wrong leads to a blocking error

2.4.1.1 Determining which entity types to report

The logical datamodel of CRE contains over hundred and fourteen entity types. All these are relevant for reporting correctly. However, not all entity types have to be reported physically by the reporting agents. Each relevant entity type directly maps 1-to-1 to a .csv definition in this chapter.

The underlying mechanism for selecting an entity type to report is:

1. Select all entity types that have, as part of their primary key, the attribute 'reporting agent identifier'.
2. Of these entity types, select only those that have more attributes than only those that make up the primary key.
3. Add to that the entity types that implement a many-to-many relationship.

This will select the entity types that have to be reported in step 1, and those entity types that will contain extra information in step 2.

The list of csv files to report is generated in this document using the above algorithm.

The next sections each describe a single specific <entity>.csv file

2.4.1.2 Reporting of empty files

When there is nothing to report for a specific .csv file, the file is still reported to us. It must contain the header record, but will otherwise be empty of data.

2.4.2 accounting_data.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"obsrvd_agnt_cd";"reporting_reference_date";"cntrct_id";"instrmnt_id";"frbrnc_stts";"dt_frbrnc_stts";"cmltv_rcvrs_snc_dflt";"fully_derecognised_instrument_being_serviced_indicator"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	obsrvd_agnt_cd	Variable characters (60)	60	identifier domain
3	reporting_reference_date	Date		reporting reference date
4	cntrct_id	Variable characters (60)	60	identifier domain
5	instrmnt_id	Variable characters (60)	60	identifier domain
6	frbrnc_stts	Variable multibyte (255)	255	code
7	dt_frbrnc_stts	Date		date
8	cmltv_rcvrs_snc_dflt	Decimal (16,0)	16	euro amount (non-negative) with exclusions
9	fully_derecognised_instrument_being_serviced_indicator	Variable characters (50)	50	fully derecognised instrument being serviced indicator

2.4.3 address.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"reporting_reference_date";"street";"city_town_village";"postal_code";"country"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	reporting_reference_date	Date		reporting reference date
3	street	Variable multibyte (255)	255	medium sized string
4	city_town_village	Variable multibyte (255)	255	medium sized string
5	postal_code	Variable multibyte (20)	20	code 20
6	country	Characters (2)	2	ISO 3166 Country

2.4.4 contract.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"obsrvd_agnt_cd";"reporting_reference_date";"cntrct_id";"dt_incptn";"regulatory_ead_at_inception"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	obsrvd_agnt_cd	Variable characters (60)	60	identifier domain
3	reporting_reference_date	Date		reporting reference date
4	cntrct_id	Variable characters (60)	60	identifier domain
5	dt_incptn	Date		date
6	regulatory_ead_at_inception	Decimal (20,0)	20	real number of 20 numbers with 2 decimals with exclusions

2.4.5 counterparty.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"counterparty_identifier";"reporting_reference_date";"counterparty_type_indicator";"protection_provider_indicator"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	counterparty_identifier	Variable characters (60)	60	identifier domain
3	reporting_reference_date	Date		reporting reference date
4	counterparty_type_indicator	Variable characters (50)	50	counterparty type indicator
5	protection_provider_indicator	Variable characters (50)	50	protection provider indicator

2.4.6 credit_card_debt_instrument.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"obsrvd_agnt_cd";"reporting_reference_date";"cntrct_id";"instrmnt_id";"off_blnc_sht_amnt"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	obsrvd_agnt_cd	Variable characters (60)	60	identifier domain
3	reporting_reference_date	Date		reporting reference date
4	cntrct_id	Variable characters (60)	60	identifier domain
5	instrmnt_id	Variable characters (60)	60	identifier domain
6	off_blnc_sht_amnt	Decimal (16,0)	16	euro amount (non-negative) with exclusions

2.4.7 credit_lines_other_than_revolving_credit_instrument.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"obsrvd_agnt_cd";"reporting_reference_date";"cntrct_id";"instrmnt_id";"off_blnc_sht_amnt"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	obsrvd_agnt_cd	Variable characters (60)	60	identifier domain
3	reporting_reference_date	Date		reporting reference date

4	cntrct_id	Variable characters (60)	60	identifier domain
5	instrmnt_id	Variable characters (60)	60	identifier domain
6	off_blnc_sht_amnt	Decimal (16,0)	16	euro amount (non-negative) with exclusions

2.4.8 creditor_instrument_data.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"obsrvd_agnt_cd";"counterparty_identifier";"entty_rl";"cntrct_id";"instrmnt_id";"reporting_reference_date"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	obsrvd_agnt_cd	Variable characters (60)	60	identifier domain
3	counterparty_identifier	Variable characters (60)	60	identifier domain
4	entty_rl	Variable characters (25)	25	counterparty-instrument role type
5	cntrct_id	Variable characters (60)	60	identifier domain
6	instrmnt_id	Variable characters (60)	60	identifier domain
7	reporting_reference_date	Date		reporting reference date

2.4.9 current_account_instrument_with_credit_limit.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"obsrvd_agnt_cd";"reporting_reference_date";"cntrct_id";"instrmnt_id";"off_blnc_sht_amnt"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	obsrvd_agnt_cd	Variable characters (60)	60	identifier domain
3	reporting_reference_date	Date		reporting reference date
4	cntrct_id	Variable characters (60)	60	identifier domain
5	instrmnt_id	Variable characters (60)	60	identifier domain
6	off_blnc_sht_amnt	Decimal (16,0)	16	euro amount (non-negative) with exclusions

2.4.10 debtor.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"entty_rl";"counterparty_identifier";"reporting_reference_date";"ultimate_parent_undertaking_identifier";"immediate_parent_undertaking_identifier"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	entty_rl	Variable characters (25)	25	counterparty-instrument role type
3	counterparty_identifier	Variable characters (60)	60	identifier domain
4	reporting_reference_date	Date		reporting reference date
5	ultimate_parent_undertaking_identifier	Variable characters (60)	60	identifier domain
6	immediate_parent_undertaking_identifier	Variable characters (60)	60	identifier domain

2.4.11 debtor_default_data.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"obsrvd_agnt_cd";"counterparty_identifier";"entty_rl";"reporting_reference_date";"crdt_qlty_dflt_stts";"dt_dflt_stts"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	obsrvd_agnt_cd	Variable characters (60)	60	identifier domain
3	counterparty_identifier	Variable characters (60)	60	identifier domain
4	entty_rl	Variable characters (25)	25	counterparty-instrument role type

5	reporting_reference_date	Date		reporting reference date
6	crdt_qlty_dflt_stts	Variable multibyte (255)	255	code
7	dt_dflt_stts	Date		date with exclusions

2.4.12 debtor_risk_data.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"obsrvd_agnt_cd";"counterparty_identifier";"entty_rl";"reporting_reference_date";"pd"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	obsrvd_agnt_cd	Variable characters (60)	60	identifier domain
3	counterparty_identifier	Variable characters (60)	60	identifier domain
4	entty_rl	Variable characters (25)	25	counterparty-instrument role type
5	reporting_reference_date	Date		reporting reference date
6	pd	Decimal (7,0)	7	real number from 0 to 1 with 6 decimals

2.4.13 debtor_instrument_data.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"obsrvd_agnt_cd";"counterparty_identifier";"entty_rl";"cntrct_id";"instrmnt_id";"reporting_reference_date";"ifrs9_stage"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	obsrvd_agnt_cd	Variable characters (60)	60	identifier domain
3	counterparty_identifier	Variable characters (60)	60	identifier domain
4	entty_rl	Variable characters (25)	25	counterparty-instrument role type
5	cntrct_id	Variable characters (60)	60	identifier domain
6	instrmnt_id	Variable characters (60)	60	identifier domain
7	reporting_reference_date	Date		reporting reference date
8	ifrs9_stage	Variable multibyte (255)	255	code

2.4.14 domestic_immovable_property.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"prtctn_id";"reporting_reference_date";"bag_object_id"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	prtctn_id	Variable characters (60)	60	identifier domain
3	reporting_reference_date	Date		reporting reference date
4	bag_object_id	Long integer		positive long integer

2.4.15 drawn_instrument.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"obsrvd_agnt_cd";"reporting_reference_date";"cntrct_id";"instrmnt_id";"settlement_date"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	obsrvd_agnt_cd	Variable characters (60)	60	identifier domain
3	reporting_reference_date	Date		reporting reference date
4	cntrct_id	Variable characters (60)	60	identifier domain
5	instrmnt_id	Variable characters (60)	60	identifier domain
6	settlement_date	Date		date with exclusions

2.4.16 ead_model_contract.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"obsrvd_agnt_cd";"reporting_reference_date";"cntrct_id";"ead_model_id";"regulatory_ead";"regulatory_rwa"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	obsrvd_agnt_cd	Variable characters (60)	60	identifier domain
3	reporting_reference_date	Date		reporting reference date
4	cntrct_id	Variable characters (60)	60	identifier domain
5	ead_model_id	Variable multibyte (255)	255	medium sized string
6	regulatory_ead	Decimal (20,0)	20	real number of 20 numbers with 2 decimals with exclusions
7	regulatory_rwa	Decimal (20,0)	20	real number of 20 numbers with 2 decimals with exclusions

2.4.17 ead_model_debtor.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"entty_rl";"counterparty_identifier";"reporting_reference_date";"ead_model_id";"regulatory_ead";"regulatory_rwa"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	entty_rl	Variable characters (25)	25	counterparty-instrument role type
3	counterparty_identifier	Variable characters (60)	60	identifier domain
4	reporting_reference_date	Date		reporting reference date
5	ead_model_id	Variable multibyte (255)	255	medium sized string
6	regulatory_ead	Decimal (20,0)	20	real number of 20 numbers with 2 decimals with exclusions
7	regulatory_rwa	Decimal (20,0)	20	real number of 20 numbers with 2 decimals with exclusions

2.4.18 ead_model_instrument.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"obsrvd_agnt_cd";"reporting_reference_date";"cntrct_id";"instrmnt_id";"ead_model_id";"regulatory_ead";"regulatory_rwa"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	obsrvd_agnt_cd	Variable characters (60)	60	identifier domain
3	reporting_reference_date	Date		reporting reference date
4	cntrct_id	Variable characters (60)	60	identifier domain
5	instrmnt_id	Variable characters (60)	60	identifier domain
6	ead_model_id	Variable multibyte (255)	255	medium sized string
7	regulatory_ead	Decimal (20,0)	20	real number of 20 numbers with 2 decimals with exclusions
8	regulatory_rwa	Decimal (20,0)	20	real number of 20 numbers with 2 decimals with exclusions

2.4.19 entity_type_delivery.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"reporting_reference_date";"logical_data_model_code";"entity_type_code";"checksum";"rowcount"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	reporting_reference_date	Date		reporting reference date
3	logical_data_model_code	Variable multibyte (255)	255	code

4	entity_type_code	Variable multibyte (255)	255	code
5	checksum	Variable multibyte (255)	255	medium sized string
6	rowcount	Integer		

2.4.20 financial_data.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"obsrvd_agnt_cd";"reporting_reference_date";"cntrct_id";"instrmnt_id";"annlsd_agrd_rt";"dt_nxt_intrst_rt_rst";"dflt_stts";"exit_status";"dt_dflt_stts";"otstndng_nmnl_amnt";"accrd_intrst";"past_due_instrument_indicator"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	obsrvd_agnt_cd	Variable characters (60)	60	identifier domain
3	reporting_reference_date	Date		reporting reference date
4	cntrct_id	Variable characters (60)	60	identifier domain
5	instrmnt_id	Variable characters (60)	60	identifier domain
6	annlsd_agrd_rt	Decimal (12,0)	12	real number (positive or negative) with exclusions
7	dt_nxt_intrst_rt_rst	Date		date with exclusions
8	dflt_stts	Variable multibyte (255)	255	code
9	exit_status	Variable multibyte (255)	255	code
10	dt_dflt_stts	Date		date with exclusions
11	otstndng_nmnl_amnt	Decimal (16,0)	16	euro amount (non-negative)
12	accrd_intrst	Decimal (16,0)	16	euro amount (positive and negative) with exclusions
13	past_due_instrument_indicator	Variable characters (50)	50	past due instrument indicator

2.4.21 fixed_term_rental_contract.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"rental_contract_identifier";"reporting_reference_date";"rental_contract_end_date"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	rental_contract_identifier	Variable characters (60)	60	identifier domain
3	reporting_reference_date	Date		reporting reference date
4	rental_contract_end_date	Date		date

2.4.22 foreign_legal_entity.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"counterparty_identifier";"reporting_reference_date";"street";"city_town_village";"postal_code";"country";"institutional_sector";"economic_activity";"balance_sheet_total";"number_of_employees";"es_code";"legal_form";"date_of_enterprise_size";"name"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	counterparty_identifier	Variable characters (60)	60	identifier domain
3	reporting_reference_date	Date		reporting reference date
4	street	Variable multibyte (255)	255	medium sized string
5	city_town_village	Variable multibyte (255)	255	medium sized string
6	postal_code	Variable multibyte (20)	20	code 20
7	country	Characters (2)	2	ISO 3166 Country
8	institutional_sector	Variable multibyte (255)	255	code
9	economic_activity	Variable multibyte (255)	255	code
10	balance_sheet_total	Decimal (16,0)	16	euro amount (non-negative)
11	number_of_employees	Decimal (12,0)	12	real number (non-negative) with exclusions

12	es_code	Variable multibyte (255)	255	code
13	legal_form	Variable multibyte (255)	255	code
14	date_of_enterprise_size	Date		date
15	name	Variable multibyte (1024)	1024	large sized string

2.4.23 immovable_property.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"prtctn_id";"reporting_reference_date";"type_of_real_estate_collateral";"liquidation_value";"parking_space_attached";"country"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	prtctn_id	Variable characters (60)	60	identifier domain
3	reporting_reference_date	Date		reporting reference date
4	type_of_real_estate_collateral	Variable multibyte (255)	255	code
5	liquidation_value	Decimal (16,0)	16	euro amount (non-negative)
6	parking_space_attached	Variable multibyte (255)	255	code
7	country	Characters (2)	2	ISO 3166 Country

2.4.24 immovable_property_rental_contract_data.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"prtctn_id";"reporting_reference_date";"rental_contract_identifier"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	prtctn_id	Variable characters (60)	60	identifier domain
3	reporting_reference_date	Date		reporting reference date
4	rental_contract_identifier	Variable characters (60)	60	identifier domain

2.4.25 instrument.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"obsrvd_agnt_cd";"reporting_reference_date";"cntrct_id";"instrmnt_id";"typ_instrmnt";"typ_amrtstn";"crrncy_dnmntn";"intrst_rt_rst_frqncy";"typ_intrst_rt";"dt_lgl_fnl_mtrty";"cmmtmnt_incptn";"pymnt_frqncy";"prjct_fnnc_ln";"provision_amount";"corep_class";"intrst_rt_at_origin";"outstanding_nominal_amount_at_inception";"special_asset_management";"recourse";"loan_to_value";"loan_to_value_at_inception";"interest_coverage_ratio";"interest_coverage_ratio_at_inception";"debt_service_coverage_ratio";"debt_service_coverage_ratio_at_inception";"interest_only_indicator";"drawn_instrument_indicator"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	obsrvd_agnt_cd	Variable characters (60)	60	identifier domain
3	reporting_reference_date	Date		reporting reference date
4	cntrct_id	Variable characters (60)	60	identifier domain
5	instrmnt_id	Variable characters (60)	60	identifier domain
6	typ_instrmnt	Variable multibyte (255)	255	code
7	typ_amrtstn	Variable multibyte (255)	255	code
8	crrncy_dnmntn	Characters (3)	3	ISO 4217 Currency
9	intrst_rt_rst_frqncy	Variable multibyte (255)	255	code
10	typ_intrst_rt	Variable multibyte (255)	255	code
11	dt_lgl_fnl_mtrty	Date		date with exclusions
12	cmmtmnt_incptn	Decimal (16,0)	16	euro amount (non-negative) with exclusions
13	pymnt_frqncy	Variable multibyte (255)	255	code
14	prjct_fnnc_ln	Variable multibyte (255)	255	code
15	provision_amount	Decimal (16,0)	16	euro amount (non-negative)

16	corep_class	Variable multibyte (255)	255	code
17	intrst_rt_at_origin	Decimal (12,0)	12	real number (positive or negative)
18	outstanding_nominal_amount_at_inception	Decimal (16,0)	16	euro amount (non-negative)
19	special_asset_management	Variable multibyte (255)	255	code
20	recourse	Variable multibyte (255)	255	code
21	loan_to_value	Decimal (12,0)	12	real number (non-negative) with exclusions
22	loan_to_value_at_inception	Decimal (12,0)	12	real number (non-negative) with exclusions
23	interest_coverage_ratio	Decimal (12,0)	12	real number (non-negative) with exclusions
24	interest_coverage_ratio_at_inception	Decimal (12,0)	12	real number (non-negative)
25	debt_service_coverage_ratio	Decimal (12,0)	12	real number (non-negative) with exclusions
26	debt_service_coverage_ratio_at_inception	Decimal (12,0)	12	real number (non-negative)
27	interest_only_indicator	Variable characters (50)	50	interest-only indicator
28	drawn_instrument_indicator	Variable characters (50)	50	drawn instrument indicator

2.4.26 instrument_past_due.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"obsrvd_agnt_cd";"reporting_reference_date";"cntrct_id";"instrmnt_id";"arrrs";"dt_pst_d"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	obsrvd_agnt_cd	Variable characters (60)	60	identifier domain
3	reporting_reference_date	Date		reporting reference date
4	cntrct_id	Variable characters (60)	60	identifier domain
5	instrmnt_id	Variable characters (60)	60	identifier domain
6	arrrs	Decimal (16,0)	16	euro amount (non-negative)
7	dt_pst_d	Date		date

2.4.27 instrument_protection_received_data.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"obsrvd_agnt_cd";"cntrct_id";"instrmnt_id";"prtctn_id";"reporting_reference_date";"prtctn_allctd_vl";"thrd_prty_prrty_clms";"orgnl_prtctn_vl";"dt_orgnl_prtctn_vl"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	obsrvd_agnt_cd	Variable characters (60)	60	identifier domain
3	cntrct_id	Variable characters (60)	60	identifier domain
4	instrmnt_id	Variable characters (60)	60	identifier domain
5	prtctn_id	Variable characters (60)	60	identifier domain
6	reporting_reference_date	Date		reporting reference date
7	prtctn_allctd_vl	Decimal (16,0)	16	euro amount (non-negative)
8	thrd_prty_prrty_clms	Decimal (16,0)	16	euro amount (non-negative)
9	orgnl_prtctn_vl	Decimal (16,0)	16	euro amount (non-negative)
10	dt_orgnl_prtctn_vl	Date		date

2.4.28 interest_only_instrument.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"obsrvd_agnt_cd";"reporting_reference_date";"cntrct_id";"instrmnt_id";"dt_end_intrst_only"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	obsrvd_agnt_cd	Variable characters (60)	60	identifier domain

3	reporting_reference_date	Date		reporting reference date
4	cntrct_id	Variable characters (60)	60	identifier domain
5	instrmnt_id	Variable characters (60)	60	identifier domain
6	dt_end_intrst_only	Date		date

2.4.29 joint_liability.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"obsrvd_agnt_cd";"counterparty_identifier";"entty_rl";"cntrct_id";"instrmnt_id";"reporting_reference_date";"joint_liability_amount"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	obsrvd_agnt_cd	Variable characters (60)	60	identifier domain
3	counterparty_identifier	Variable characters (60)	60	identifier domain
4	entty_rl	Variable characters (25)	25	counterparty-instrument role type
5	cntrct_id	Variable characters (60)	60	identifier domain
6	instrmnt_id	Variable characters (60)	60	identifier domain
7	reporting_reference_date	Date		reporting reference date
8	joint_liability_amount	Decimal (16,0)	16	euro amount (non-negative)

2.4.30 legal_entity.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"counterparty_identifier";"reporting_reference_date";"lei";"national_identifier";"national_identifier_type_country";"national_identifier_type_type";"resident_legal_entity_indicator";"immediate_parent_undertaking_indicator";"ultimate_parent_undertaking_indicator"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	counterparty_identifier	Variable characters (60)	60	identifier domain
3	reporting_reference_date	Date		reporting reference date
4	lei	Variable characters (20)	20	string with strictly 20 characters
5	national_identifier	Variable characters (50)	50	national identifier domain with exclusions
6	national_identifier_type_country	Characters (2)	2	ISO 3166 Country
7	national_identifier_type_type	Variable multibyte (255)	255	medium sized string
8	resident_legal_entity_indicator	Variable characters (50)	50	resident legal entity indicator
9	immediate_parent_undertaking_indicator	Variable characters (50)	50	immediate parent undertaking indicator
10	ultimate_parent_undertaking_indicator	Variable characters (50)	50	ultimate parent undertaking indicator

2.4.31 lgd_model_contract.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"obsrvd_agnt_cd";"reporting_reference_date";"cntrct_id";"lgd_model_id";"cure_probability";"regulatory_downturn_lgd";"regulatory_rwa";"lgd_be"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	obsrvd_agnt_cd	Variable characters (60)	60	identifier domain
3	reporting_reference_date	Date		reporting reference date
4	cntrct_id	Variable characters (60)	60	identifier domain
5	lgd_model_id	Variable multibyte (255)	255	medium sized string
6	cure_probability	Decimal (7,0)	7	real number from 0 to 1 with 6 decimals with exclusions
7	regulatory_downturn_lgd	Decimal (7,0)	7	real number from 0 to 1 with 6 decimals with exclusions
8	regulatory_rwa	Decimal (20,0)	20	real number of 20 numbers with 2 decimals with exclusions

9	lgd_be	Decimal (7,0)	7	real number from 0 to 1 with 6 decimals with exclusions

2.4.32 lgd_model_debtor.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"entty_rl";"counterparty_identifier";"reporting_reference_date";"lgd_model_id";"cure_probability";"regulatory_downturn_lgd";"regulatory_rwa";"lgd_be"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	entty_rl	Variable characters (25)	25	counterparty-instrument role type
3	counterparty_identifier	Variable characters (60)	60	identifier domain
4	reporting_reference_date	Date		reporting reference date
5	lgd_model_id	Variable multibyte (255)	255	medium sized string
6	cure_probability	Decimal (7,0)	7	real number from 0 to 1 with 6 decimals with exclusions
7	regulatory_downturn_lgd	Decimal (7,0)	7	real number from 0 to 1 with 6 decimals with exclusions
8	regulatory_rwa	Decimal (20,0)	20	real number of 20 numbers with 2 decimals with exclusions
9	lgd_be	Decimal (7,0)	7	real number from 0 to 1 with 6 decimals with exclusions

2.4.33 lgd_model_instrument.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"obsrvd_agnt_cd";"reporting_reference_date";"cntrct_id";"instrmnt_id";"lgd_model_id";"cure_probability";"regulatory_downturn_lgd";"regulatory_rwa";"lgd_be"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	obsrvd_agnt_cd	Variable characters (60)	60	identifier domain
3	reporting_reference_date	Date		reporting reference date
4	cntrct_id	Variable characters (60)	60	identifier domain
5	instrmnt_id	Variable characters (60)	60	identifier domain
6	lgd_model_id	Variable multibyte (255)	255	medium sized string
7	cure_probability	Decimal (7,0)	7	real number from 0 to 1 with 6 decimals with exclusions
8	regulatory_downturn_lgd	Decimal (7,0)	7	real number from 0 to 1 with 6 decimals with exclusions
9	regulatory_rwa	Decimal (20,0)	20	real number of 20 numbers with 2 decimals with exclusions
10	lgd_be	Decimal (7,0)	7	real number from 0 to 1 with 6 decimals with exclusions

2.4.34 non_fixed_interest_instrument.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"obsrvd_agnt_cd";"reporting_reference_date";"cntrct_id";"instrmnt_id";"reference_rate_rfrnc_rt_value";"reference_rate_maturity_value";"intrst_rt_sprd"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	obsrvd_agnt_cd	Variable characters (60)	60	identifier domain
3	reporting_reference_date	Date		reporting reference date
4	cntrct_id	Variable characters (60)	60	identifier domain
5	instrmnt_id	Variable characters (60)	60	identifier domain
6	reference_rate_rfrnc_rt_value	Variable multibyte (255)	255	code
7	reference_rate_maturity_value	Variable multibyte (255)	255	code
8	intrst_rt_sprd	Decimal (12,0)	12	real number (positive or negative)

2.4.35 non_land.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"prtctn_id";"reporting_reference_date";"measurement_date_of_occupancy";"occupancy_rate";"total_rentable_surface";"street";"city_town_village";"postal_code";"country";"energy_label"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	prtctn_id	Variable characters (60)	60	identifier domain
3	reporting_reference_date	Date		reporting reference date
4	measurement_date_of_occupancy	Date		date with exclusions
5	occupancy_rate	Decimal (12,0)	12	real number (non-negative)
6	total_rentable_surface	Decimal (12,0)	12	real number (non-negative)
7	street	Variable multibyte (255)	255	medium sized string
8	city_town_village	Variable multibyte (255)	255	medium sized string
9	postal_code	Variable multibyte (20)	20	code 20
10	country	Characters (2)	2	ISO 3166 Country
11	energy_label	Variable multibyte (255)	255	code

2.4.36 observed_agent_delivery.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"obsrvd_agnt_cd";"reported_as_counterparty_identifier";"reporting_reference_date"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	obsrvd_agnt_cd	Variable characters (60)	60	identifier domain
3	reported_as_counterparty_identifier	Variable characters (60)	60	identifier domain
4	reporting_reference_date	Date		reporting reference date

2.4.37 originator_securitized_instrument_data.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"obsrvd_agnt_cd";"counterparty_identifier";"entty_rl";"cntrct_id";"instrmnt_id";"reporting_reference_date"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	obsrvd_agnt_cd	Variable characters (60)	60	identifier domain
3	counterparty_identifier	Variable characters (60)	60	identifier domain
4	entty_rl	Variable characters (25)	25	counterparty-instrument role type
5	cntrct_id	Variable characters (60)	60	identifier domain
6	instrmnt_id	Variable characters (60)	60	identifier domain
7	reporting_reference_date	Date		reporting reference date

2.4.38 other_loans_instrument.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"obsrvd_agnt_cd";"reporting_reference_date";"cntrct_id";"instrmnt_id";"off_blnc_sht_amnt"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	obsrvd_agnt_cd	Variable characters (60)	60	identifier domain
3	reporting_reference_date	Date		reporting reference date
4	cntrct_id	Variable characters (60)	60	identifier domain
5	instrmnt_id	Variable characters (60)	60	identifier domain
6	off_blnc_sht_amnt	Decimal (16,0)	16	euro amount (non-negative) with exclusions

2.4.39 overdraft_instrument.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"obsrvd_agnt_cd";"reporting_reference_date";"cntrct_id";"instrmnt_id";"current_account_type"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	obsrvd_agnt_cd	Variable characters (60)	60	identifier domain
3	reporting_reference_date	Date		reporting reference date
4	cntrct_id	Variable characters (60)	60	identifier domain
5	instrmnt_id	Variable characters (60)	60	identifier domain
6	current_account_type	Variable characters (50)	50	current account type

2.4.40 protection_provider.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"counterparty_identifier";"reporting_reference_date";"immediate_parent_undertaking_identifier";"ultimate_parent_undertaking_identifier"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	counterparty_identifier	Variable characters (60)	60	identifier domain
3	reporting_reference_date	Date		reporting reference date
4	immediate_parent_undertaking_identifier	Variable characters (60)	60	identifier domain
5	ultimate_parent_undertaking_identifier	Variable characters (60)	60	identifier domain

2.4.41 protection_provider_protection_received.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"counterparty_identifier";"prtctn_id";"reporting_reference_date"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	counterparty_identifier	Variable characters (60)	60	identifier domain
3	prtctn_id	Variable characters (60)	60	identifier domain
4	reporting_reference_date	Date		reporting reference date

2.4.42 protection_received.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"prtctn_id";"reporting_reference_date";"typ_prtctn";"typ_prtctn_vl";"prtctn_vltn_apprch";"prtctn_vl";"dt_prtctn_vl";"expected_liquidation_costs";"immovable_property_indicator"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	prtctn_id	Variable characters (60)	60	identifier domain
3	reporting_reference_date	Date		reporting reference date
4	typ_prtctn	Variable multibyte (255)	255	code
5	typ_prtctn_vl	Variable multibyte (255)	255	code
6	prtctn_vltn_apprch	Variable multibyte (255)	255	code
7	prtctn_vl	Decimal (16,0)	16	euro amount (non-negative) with exclusions
8	dt_prtctn_vl	Date		date
9	expected_liquidation_costs	Decimal (16,0)	16	euro amount (non-negative)
10	immovable_property_indicator	Variable characters (50)	50	immovable property indicator

2.4.43 quasi_corporation.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"counterparty_identifier";"reporting_reference_date";"city_town_village";"postal_code";"country";"balance_sheet_total";"number_of_employees";"es_code";"institutional_sector";"economic_activity";"legal_form";"date_of_enterprise_size"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	counterparty_identifier	Variable characters (60)	60	identifier domain
3	reporting_reference_date	Date		reporting reference date
4	city_town_village	Variable multibyte (255)	255	medium sized string
5	postal_code	Variable multibyte (20)	20	code 20
6	country	Characters (2)	2	ISO 3166 Country
7	balance_sheet_total	Decimal (16,0)	16	euro amount (non-negative)
8	number_of_employees	Decimal (12,0)	12	real number (non-negative) with exclusions
9	es_code	Variable multibyte (255)	255	code
10	institutional_sector	Variable multibyte (255)	255	code
11	economic_activity	Variable multibyte (255)	255	code
12	legal_form	Variable multibyte (255)	255	code
13	date_of_enterprise_size	Date		date

2.4.44 recognised_instrument.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"obsrvd_agnt_cd";"reporting_reference_date";"cntrct_id";"instrmnt_id";"type_of_impairment";"accmltd_wrtffs"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	obsrvd_agnt_cd	Variable characters (60)	60	identifier domain
3	reporting_reference_date	Date		reporting reference date
4	cntrct_id	Variable characters (60)	60	identifier domain
5	instrmnt_id	Variable characters (60)	60	identifier domain
6	type_of_impairment	Variable multibyte (255)	255	code
7	accmltd_wrtffs	Decimal (16,0)	16	euro amount (positive and negative)

2.4.45 rental_contract.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"rental_contract_identifier";"reporting_reference_date";"rental_contract_start_date";"rental_income";"rental_contract_type"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	rental_contract_identifier	Variable characters (60)	60	identifier domain
3	reporting_reference_date	Date		reporting reference date
4	rental_contract_start_date	Date		date
5	rental_income	Decimal (16,0)	16	euro amount (non-negative)
6	rental_contract_type	Variable characters (50)	50	rental contract type

2.4.46 reporting_agent_delivery.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"reporting_reference_date";"acct_code2";"reported_as_counterparty_identifier"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	reporting_reference_date	Date		reporting reference date

3	acct_code2	Variable multibyte (255)	255	code
4	reported_as_counterparty_identifier	Variable characters (60)	60	identifier domain

2.4.47 revolving_credit_other_than_overdrafts_and_credit_card_debt_instrument.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"obsrvd_agnt_cd";"reporting_reference_date";"cntrct_id";"instrmnt_id";"off_blnc_sht_amnt"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	obsrvd_agnt_cd	Variable characters (60)	60	identifier domain
3	reporting_reference_date	Date		reporting reference date
4	cntrct_id	Variable characters (60)	60	identifier domain
5	instrmnt_id	Variable characters (60)	60	identifier domain
6	off_blnc_sht_amnt	Decimal (16,0)	16	euro amount (non-negative) with exclusions

2.4.48 servicer_instrument_data.csv

#	Header	Data type	Details
1	"reporting_agent_identifier";"obsrvd_agnt_cd";"counterparty_identifier";"entty_rl";"cntrct_id";"instrmnt_id";"reporting_reference_date"	Alpha-numeric	Semicolon-separated string of all column names. Field names are put in double quotation marks.

#	Column name (attribute)	Data type	Length	Details
1	reporting_agent_identifier	Variable characters (60)	60	identifier domain
2	obsrvd_agnt_cd	Variable characters (60)	60	identifier domain
3	counterparty_identifier	Variable characters (60)	60	identifier domain
4	entty_rl	Variable characters (25)	25	counterparty-instrument role type
5	cntrct_id	Variable characters (60)	60	identifier domain
6	instrmnt_id	Variable characters (60)	60	identifier domain
7	reporting_reference_date	Date		reporting reference date

2.5 Validation strategy

The validation strategy of the submitted data is closely related to the overall data quality strategy as described in paragraph 1.4.

Validations on the data delivery set are performed asynchronically and (limited) with data outside the data delivery set (e.g. validation on reference data). The bulk of all blocking validations are modelled in the logical data model. Blocking validations (that affect the status of the data delivery obligation) on top of that are explicitly stated in Appendix A. Appendix B states the signalling validation rules that will not affect the data delivery obligation status, but can however lead to a call for resubmission.

To summarize the validation strategy of the data delivery:

- Blocking findings will result in non-acceptance of the data delivery obligation
- Signalling findings will result in acceptance of the data delivery obligation[7]

There are three categories of validations that will lead to an evaluation of the data delivery (requirements) in the event of findings. In the table below these categories, the severity and types of feedback are described.

Type	Description	Source	Action	Feedback
I. Logius checks	Paragraph 1.3.1	Delivery of data to DNB using Logius Digipoort	Blocking	Delivery notification Logius (XML, MIME)
II. DNB technical, structure & administrative checks	Paragraph 1.4.9	Delivery of data to DNB using Logius Digipoort	Blocking	Logius database (400, 410) & DNB Digital Reporting Portal
III (a) Logical - Domain	Do the attributes comply with the size, type and domain constraints?	logical data model + Appendix A	Blocking	DNB Digital Reporting Portal (XML)
III (b) Logical - Tuple	Do the value of attributes comply with constraints?	Appendix A	Blocking or Signalling	DNB Digital Reporting Portal (XML)
III (c) Logical – Entity	Do the entities comply with the uniqueness (or key) constraints ?	logical data model	Blocking	DNB Digital Reporting Portal (XML)
III (d) Logical - Model	Generally speaking, model constraints need other entities to evaluate the rule. eg. referential integrity requirements of the logical data model (model constraints), subtype constraints and specialisation model constraints[8])?	logical data model + Appendix A	Blocking Or Signalling	DNB Digital Reporting Portal (XML)

[7] As stated in paragraph 1.4 a fulfillment of the delivery obligation (status=accepted) might still result in a request for resubmission.

[8] Although highly related to each other, there is a subtle difference between a subtype constraint and a specialisation model constraint. The first evaluates the correct referential value, the second evaluates the correct attributes per subtype.

2.5.1 Validation processing & feedback

Technical validations will be processed sequentially, when a blocking finding is encountered, processing will stop and no further evaluation will be performed.

Logical validations will be processed on the complete CRE data-exchange.

Feedback on technical validations will be straightforward (e.g. XML header violation, no open requirement available, etc.). Feedback on logical validations will be published in the DNB Digital Reporting Portal as an XML file containing all violations. If however, these violations result in huge amounts of data of the same type of error, there will be some compression.

2.6 Completeness of delivery

All deliveries are a full snapshot of the source, deltas are not requested.

2.7 Submission process

The submission process is explained in the next paragraphs.

2.7.1 CRE reporting requirements, Digital Reporting Portal (DLR)

DNB publishes all agreements and reporting requirements for banks in its Digital Reporting Portal.

2.7.2 Logius Digipoort connection criteria

The CRE data submission is to be effected through Logius' Digipoort platform, which provides a secure data delivery service between businessess and public bodies. The ultimate objective of Digipoort is to reduce the administrative burdens for businesses and public bodies using smart, digital solutions for operational processes.

2.7.3 CRE data delivery feedback

Following a CRE data-exchange by the bank, there are a number of feedback moments.

1. Logius, the transporter's service provider, sends a notice of receipt (XML in MIME). This means the transporter has received the data delivery and the majority of validations done by Logius are ok or not ok. If there is a faulty XML header, Logius will have to contact the bank. The transporter (i.e. Logius) provides a track and trace functionality (messageID) to enable data tracking. Passing Logius validation will result in Logius pushing the AnaCredit dataexchange to DNB.
2. DNB sends a delivery confirmation notification to Logius (XML in MIME) notifying the transporter that the data-exchange has been received and whether or not it passed DNB's technical validations. Logius will translate this message to a status 400 (technical validation OK) or a status 410 (technical validation ERROR). All validation feedback (status and files) by DNB will also be made available and viewable in the DNB Digital Reporting Portal.
3. The CRE data-exchange from banks, through Logius, received by DNB and the technical validations by DNB can be tracked in the Logius track & trace database which is accessible via an API by using the messageID provided in the initial Logius delivery conformation.
4. After the DNB technical validations have been executed, the logical validations will commence. Feedback on these valdiations is not communicated through Logius, but will be made available in the DNB Digital Reporting Portal.
5. Notifications of validation results by DNB can be send to the responsible person within the bank if he/she has been properly registered in the DNB Digital Reporting Portal.

2.7.4 Process and statuses

It's important to distinguish between (1) the reception, validation, feedback and delivery of the CRE data exchange by Logius and (2) the subsequent process of reception, validation and feedback of the CRE data exchange by DNB.

Ad 1) reception, validation, feedback and delivery by Logius

- Bank sends CRE data
- Logius validates and send delivery conformation, (XML, MIME) – including message ID
- Logius pushes CRE data to DNB

Ad 2) reception, validation and feedback by DNB

When Logius sent DNB a delivery notification of the data exchange, communications relating to the status of a delivery can at all times be consulted in the DNB Digital Reporting Portal. There are two types of statuses:

1. The status of the reporting obligation: "you must deliver the CRE data for data delivery set <date>".
2. The delivery status: "you have submitted a delivery under a reporting obligation". This means that a single reporting obligation can have multiple deliveries in case of validation errors.

When a bank submits a CRE dataexchange to Logius, passed the Logius validations and passed the DNB technical validations, the delivery status in the DNB Digital Reporting Portal is set to **Received**. The requirement status remains **Open**. The bank cannot make a new submission under the same requirement as long as the validation process is ongoing (status=**Received**)[9].

When the CRE dataexchange passed the DNB technical validations a delivery notification is send back to Logius. Logius will process this notification into either a status 400 or a status 410. A status 410 in Logius (technical status=ERROR) will also result in a delivery status **Not Accepted.** The DNB Digital Reporting Portal will show the reason for this error. The bank can now correct the error and resubmit under the same reporting obligation.

If the DNB technical validation passed successfully, the Logius database will show a status 400 and the delivery status will remain to be **Received**. Now the logical validations are being processed.

All the logical validations (blocking and signalling) will be executed. If there is a violation of a blocking rule, the delivery status will be set to **Not Accepted**. The status of the obligation will remain to be **Open**. Banks can view the validation results in the DNB Digital Reporting Portal, correct the error and resubmit the data.

If there are no blocking findings, the delivery status is set to **Accepted** and the obligation status is set to **Completed**. The bank has successfully met the CRE obligation.

Violation of signalling rules will not result in a **Not Accepted** delivery[10]. They might result in a new obligation for a resubmission.

2.7.5 Other signalling rules[11] and plausibility rules

Blocking validations and signalling validations of data within the data delivery set are checked and dealt with automatically when the delivery arrives (see 2.5). Contrary to signalling rules that require data outside the data delivery set and plausibility rules that need a non-automated interpretation. These rules do not influence the reporting obligation or delivery status, they are separately reported and could lead to either enquiries with the bank or a new obligation to resubmit data.

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[9] Sending in a new CRE data exchange for the same obligation (reporting ID, reporting reference date, datadelivery code) while the status of the previous delivery is **Received**, will result in a validation error of the newly submitted data exchange.

[10] In time, these signalling rules are meant to be changed to 'blocking'.

[11] These are signalling rules that require data outside the scope of the data delivery set.

A special type of signalling rule is the plausibility rule which is less automated; such a rule is often based on detailed analyses and combining data with alternative data sources, etc. Moreover, the outcomes cannot be established in advance. They may provide a plausible explanation, which may or may not have been put forward by the reporting agent.

The outcomes of this type of rules are published in the Digital Reporting Portal.

A list of these other signalling rules is provided in Appendix B.

2.7.6 Validation of completeness

The metadata checksum file is part of the files to be submitted. For each entity type, the required type of checksum is listed. For now, no checksum is requested, only, a logical row count is requested for each entity type. This count indicates the number of instances of an entity type that is appropriate for this entity type in accordance with the logical data model.

Please note that this concerns all entities in the logical data model including reference data and entity types like “entity type delivery” and not only those in the physical data deliveries: the logical data model also requires a row count and checksum for those entity types that do not have a corresponding .csv file to be delivered.

2.7.6.1 Example of a check on a physical delivery

E.g. the reporting agent must report on exactly 100,000 instruments. The instrument.csv file contains 100,000 rows, excluding the header. The row count for the logical entity is 100,000. The entity type delivery lists a row count of 100,000 for the "instrument" entity type.

DNB checks that 100000 = 100000 and accepts the delivery.

2.7.6.2 Example of a check on a logical delivery

The entity type "instrument not past due" does not have its own specific features or relations, and therefore does not require physical delivery. However, the logical checksum of all not past due instruments must be delivered.

For example, the reporting agent must report on exactly 100,000 instruments (with 100,000 financial data), 10,000 of which are instrument past due and 90,000 are instrument not past due (100,000-10,000).

These files must be reported:

1. instrument.csv with 100,000 records
2. financial_data.csv with 100,000 records
3. instrument_past_due.csv with 10,000 records

These records must be reported in the entity type delivery:

Entity type	Rowcount
Instrument	100,000
financial data	100,000
instrument past due	10,000
instrument not past due	90,000

DNB checks that instrument.csv contains 100,000 rows, that financial_data.csv contains 100,000 rows, that instrument_past_due contains 10,000 rows and that 90,000 rows in instrument.csv logically consist of instruments not past due.

2.7.7 Resubmission

In some cases, even after extensive analysis by DNB, the submitted CRE data set may turn out to be incorrect[12] (see also Section 2.7.5). If the cause is a signalling or plausibility rule (Appendix B), the agent in question is contacted to provide an explanation. If, based on this explanation, the data submitted is found to be incorrect, DNB can demand a resubmission. A new reporting obligation for the period in question will then be created in the Digital Reporting Portal.

[12] Whereas data validations mainly concern the delivery, the scope of consistency and plausibility rules stretches beyond single deliveries. The **Completed** status means that the delivery complies with validation rules. Non-compliance with consistency or plausibility rules may lead to a resubmission being required.

3 DATA DELIVERY SPECIFICATIONS

After the data from the files have been processed in the file interface, they are validated against the normalised logical data model of the interface and then loaded into it. The interface is described below.

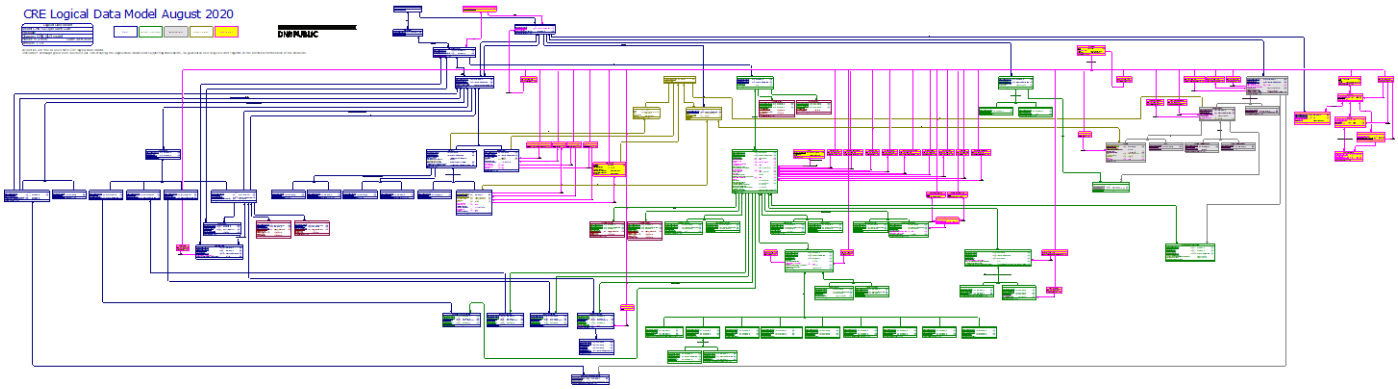
3.1 Process description

The CRE Reporting Manual describes which instruments and counterparties must be reported on, as well as the data that must be reported. The reporting population is also listed.

3.2 Logical data model

The link below refers to the CRE web page within the Digital Reporting Portal on the DNB website, where a zip file can be downloaded containing a description of the logical data model in HTML format. The logical data model describes all entity types, their structure and interrelations.

Link: https://www.dnb.nl/statistiek/digitaal-loket-rapportages/statistische-rapportages/banken/commercial-real-estate/index.jsp



3.3 Dealing with “Non-applicable” attribute values in the logical data model

There are three different ways in which the reporting of “Non-applicable” is dealt with in the logical data model.

The first type covers those situations where the applicability of an attribute is inherent in the arrangement between the observed agent and its involved parties. These “Non-applicable” values have in the LDM a domain extention denoting the possibility of a “Non-applicable” value.

In the second type of situations, there are subtypes within the LDM that take care of the “Non-applicable” situations. For example, the attribute ‘arrears for the instrument’ can only be reported on ‘instrument past due’.

And the third type of situations occurs when introducing subtyping would create more complexity than it would solve. For these situations, a business rule is introduced to indicate under which conditions the value “Non-applicable” is allowed.

3.3.1 Reporting “Non-applicable” for Natural Persons and Partnerships

Within CRE, no counterparty information about natural persons or partnerships is reported. However, there are situations in which the reporting of assets of a natural person or a partnership might occur. Specifically:

1. The protection received for an instrument that qualifies for reporting is provided by a natural person or a partnership
2. An instrument has multiple debtors where one or more, but not all, are natural persons or partnerships.

In these two situations, there is the need to report information “Non-applicable” for the natural person or partnership with regard to the counterparty reference data. Within the logical data model, this is solved by requiring the creation of a dummy counterparty, since the counterparty identifier is part of the key of the entity type ‘debtor data-instrument. This dummy counterparty allows us to rely on the strict data quality validations that the LDM specifies, but still reporting “Non-applicable” for the natural person or partnership.

The following records need to be reported for the dummy natural person or partnership:

counterparty.csv

Column	Value
reporting_agent_identifier	*The applicable value for the reporting agent*
counterparty_identifier	“Non-applicable”
reporting_reference_date	*The applicable value for the reporting reference date*
counterparty type indicator	“”
protection_provider_indicator	“”

To be able to report a protection of a natural person or a partnership, the record in the entity type ‘protection provider-protection received’ will point to a protection provider with the counterparty identifier “Non-applicable”.

An instrument where one of the debtors is a natural person or partnership will point to a record in the entity type ‘debtor’ with the counterparty identifier “Non-applicable”. Both situations mean that those dummy counterparty “roles” – debtor and protection provider – must be reported. These will not have any immediate, nor ultimate parent undertakings. The default data and risk data entity types will also not be reported for the dummy counterparty.

3.4 Mapping the delivery to the logical data model

This section describes the fields and tables that are shown for the attributes and entities in the file interface, i.e. which fields from which tables are visible for which entities and attributes.

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
accounting_data.csv	reporting_agent_identifier	accounting data	reporting agent identifier
accounting_data.csv	obsrvd_agnt_cd	accounting data	observed agent identifier
accounting_data.csv	reporting_reference_date	accounting data	reporting reference date
accounting_data.csv	cntrct_id	accounting data	contract identifier
accounting_data.csv	instrmnt_id	accounting data	instrument identifier
accounting_data.csv	frbrnc_stts	accounting data	status of forbearance and renegotiation
accounting_data.csv	dt_frbrnc_stts	accounting data	date of the forbearance and renegotiation status
accounting_data.csv	cmltv_rcvrs_snc_dflt	accounting data	cumulative recoveries since default
accounting_data.csv	fully_derecognised_instrument_being_serviced_indicator	accounting data	fully derecognised instrument being serviced indicator

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
address.csv	reporting_agent_identifier	address	reporting agent identifier
address.csv	reporting_reference_date	address	reporting reference date
address.csv	street	address	street
address.csv	city_town_village	address	city / town / village
address.csv	postal_code	address	postal code
address.csv	country	address	country

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
contract.csv	reporting_agent_identifier	contract	reporting agent identifier
contract.csv	obsrvd_agnt_cd	contract	observed agent identifier
contract.csv	reporting_reference_date	contract	reporting reference date
contract.csv	cntrct_id	contract	contract identifier

contract.csv	dt_incptn	contract	inception date
contract.csv	regulatory_ead_at_inception	contract	regulatory EAD at inception

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
counterparty.csv	reporting_agent_identifier	counterparty	reporting agent identifier
counterparty.csv	counterparty_identifier	counterparty	counterparty identifier
counterparty.csv	reporting_reference_date	counterparty	reporting reference date
counterparty.csv	counterparty_type_indicator	counterparty	counterparty type indicator
counterparty.csv	protection_provider_indicator	counterparty	protection provider indicator

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
credit_card_debt_instrument.csv	reporting_agent_identifier	credit card debt instrument	reporting agent identifier
credit_card_debt_instrument.csv	obsrvd_agnt_cd	credit card debt instrument	observed agent identifier
credit_card_debt_instrument.csv	reporting_reference_date	credit card debt instrument	reporting reference date
credit_card_debt_instrument.csv	cntrct_id	credit card debt instrument	contract identifier
credit_card_debt_instrument.csv	instrmnt_id	credit card debt instrument	instrument identifier
credit_card_debt_instrument.csv	off_blnc_sht_amnt	credit card debt instrument	off-balance sheet amount

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
credit_lines_other_than_revolving_credit_instrument.csv	reporting_agent_identifier	credit lines other than revolving credit instrument	reporting agent identifier
credit_lines_other_than_revolving_credit_instrument.csv	obsrvd_agnt_cd	credit lines other than revolving credit instrument	observed agent identifier
credit_lines_other_than_revolving_credit_instrument.csv	reporting_reference_date	credit lines other than revolving credit instrument	reporting reference date
credit_lines_other_than_revolving_credit_instrument.csv	cntrct_id	credit lines other than revolving credit instrument	contract identifier
credit_lines_other_than_revolving_credit_instrument.csv	instrmnt_id	credit lines other than revolving credit instrument	instrument identifier
credit_lines_other_than_revolving_credit_instrument.csv	off_blnc_sht_amnt	credit lines other than revolving credit instrument	off-balance sheet amount

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
creditor_instrument_data.csv	reporting_agent_identifier	creditor-instrument data	reporting agent identifier
creditor_instrument_data.csv	obsrvd_agnt_cd	creditor-instrument data	observed agent identifier
creditor_instrument_data.csv	counterparty_identifier	creditor-instrument data	counterparty identifier
creditor_instrument_data.csv	entty_rl	creditor-instrument data	counterparty role
creditor_instrument_data.csv	cntrct_id	creditor-instrument data	contract identifier
creditor_instrument_data.csv	instrmnt_id	creditor-instrument data	instrument identifier
creditor_instrument_data.csv	reporting_reference_date	creditor-instrument data	reporting reference date

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
current_account_instrument_with_credit_limit.csv	reporting_agent_identifier	current account instrument with credit limit	reporting agent identifier
current_account_instrument_with_credit_limit.csv	obsrvd_agnt_cd	current account instrument with credit limit	observed agent identifier
current_account_instrument_with_credit_limit.csv	reporting_reference_date	current account instrument with credit limit	reporting reference date
current_account_instrument_with_credit_limit.csv	cntrct_id	current account instrument with credit limit	contract identifier
current_account_instrument_with_credit_limit.csv	instrmnt_id	current account instrument with credit limit	instrument identifier
current_account_instrument_with_credit_limit.csv	off_blnc_sht_amnt	current account instrument with credit limit	off-balance sheet amount

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
debtor.csv	reporting_agent_identifier	debtor	reporting agent identifier
debtor.csv	entty_rl	debtor	counterparty role
debtor.csv	counterparty_identifier	debtor	counterparty identifier
debtor.csv	reporting_reference_date	debtor	reporting reference date
debtor.csv	ultimate_parent_undertaking_identifier	debtor	ultimate parent undertaking identifier
debtor.csv	immediate_parent_undertaking_identifier	debtor	immediate parent undertaking identifier

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
debtor_default_data.csv	reporting_agent_identifier	debtor default data	reporting agent identifier
debtor_default_data.csv	obsrvd_agnt_cd	debtor default data	observed agent identifier
debtor_default_data.csv	counterparty_identifier	debtor default data	counterparty identifier
debtor_default_data.csv	entty_rl	debtor default data	counterparty role
debtor_default_data.csv	reporting_reference_date	debtor default data	reporting reference date
debtor_default_data.csv	crdt_qlty_dflt_stts	debtor default data	default status of the counterparty
debtor_default_data.csv	dt_dflt_stts	debtor default data	date of the default status of the counterparty

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
debtor_risk_data.csv	reporting_agent_identifier	debtor risk data	reporting agent identifier
debtor_risk_data.csv	obsrvd_agnt_cd	debtor risk data	observed agent identifier
debtor_risk_data.csv	counterparty_identifier	debtor risk data	counterparty identifier
debtor_risk_data.csv	entty_rl	debtor risk data	counterparty role
debtor_risk_data.csv	reporting_reference_date	debtor risk data	reporting reference date
debtor_risk_data.csv	pd	debtor risk data	probability of default

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
debtor_instrument_data.csv	reporting_agent_identifier	debtor-instrument data	reporting agent identifier
debtor_instrument_data.csv	obsrvd_agnt_cd	debtor-instrument data	observed agent identifier
debtor_instrument_data.csv	counterparty_identifier	debtor-instrument data	counterparty identifier
debtor_instrument_data.csv	entty_rl	debtor-instrument data	counterparty role
debtor_instrument_data.csv	cntrct_id	debtor-instrument data	contract identifier
debtor_instrument_data.csv	instrmnt_id	debtor-instrument data	instrument identifier
debtor_instrument_data.csv	reporting_reference_date	debtor-instrument data	reporting reference date
debtor_instrument_data.csv	ifrs9_stage	debtor-instrument data	ifrs9 stage

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
domestic_immovable_property.csv	reporting_agent_identifier	domestic immovable property	reporting agent identifier
domestic_immovable_property.csv	prtctn_id	domestic immovable property	protection identifier
domestic_immovable_property.csv	reporting_reference_date	domestic immovable property	reporting reference date
domestic_immovable_property.csv	bag_object_id	domestic immovable property	BAG Object-ID

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
drawn_instrument.csv	reporting_agent_identifier	drawn instrument	reporting agent identifier
drawn_instrument.csv	obsrvd_agnt_cd	drawn instrument	observed agent identifier
drawn_instrument.csv	reporting_reference_date	drawn instrument	reporting reference date
drawn_instrument.csv	cntrct_id	drawn instrument	contract identifier
drawn_instrument.csv	instrmnt_id	drawn instrument	instrument identifier
drawn_instrument.csv	settlement_date	drawn instrument	settlement date

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
ead_model_contract.csv	reporting_agent_identifier	EAD model contract	reporting agent identifier
ead_model_contract.csv	obsrvd_agnt_cd	EAD model contract	observed agent identifier
ead_model_contract.csv	reporting_reference_date	EAD model contract	reporting reference date
ead_model_contract.csv	cntrct_id	EAD model contract	contract identifier
ead_model_contract.csv	ead_model_id	EAD model contract	EAD model identifier
ead_model_contract.csv	regulatory_ead	EAD model contract	regulatory EAD
ead_model_contract.csv	regulatory_rwa	EAD model contract	regulatory RWA

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
ead_model_debtor.csv	reporting_agent_identifier	EAD model debtor	reporting agent identifier
ead_model_debtor.csv	entty_rl	EAD model debtor	counterparty role
ead_model_debtor.csv	counterparty_identifier	EAD model debtor	counterparty identifier
ead_model_debtor.csv	reporting_reference_date	EAD model debtor	reporting reference date
ead_model_debtor.csv	ead_model_id	EAD model debtor	EAD model identifier
ead_model_debtor.csv	regulatory_ead	EAD model debtor	regulatory EAD
ead_model_debtor.csv	regulatory_rwa	EAD model debtor	regulatory RWA

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
ead_model_instrument.csv	reporting_agent_identifier	EAD model instrument	reporting agent identifier
ead_model_instrument.csv	obsrvd_agnt_cd	EAD model instrument	observed agent identifier
ead_model_instrument.csv	reporting_reference_date	EAD model instrument	reporting reference date
ead_model_instrument.csv	cntrct_id	EAD model instrument	contract identifier
ead_model_instrument.csv	instrmnt_id	EAD model instrument	instrument identifier
ead_model_instrument.csv	ead_model_id	EAD model instrument	EAD model identifier
ead_model_instrument.csv	regulatory_ead	EAD model instrument	regulatory EAD
ead_model_instrument.csv	regulatory_rwa	EAD model instrument	regulatory RWA

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
entity_type_delivery.csv	reporting_agent_identifier	entity type delivery	reporting agent identifier
entity_type_delivery.csv	reporting_reference_date	entity type delivery	reporting reference date
entity_type_delivery.csv	logical_data_model_code	entity type delivery	logical data model_code
entity_type_delivery.csv	entity_type_code	entity type delivery	entity type code
entity_type_delivery.csv	checksum	entity type delivery	checksum
entity_type_delivery.csv	rowcount	entity type delivery	rowcount

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
financial_data.csv	reporting_agent_identifier	financial data	reporting agent identifier
financial_data.csv	obsrvd_agnt_cd	financial data	observed agent identifier
financial_data.csv	reporting_reference_date	financial data	reporting reference date
financial_data.csv	cntrct_id	financial data	contract identifier
financial_data.csv	instrmnt_id	financial data	instrument identifier
financial_data.csv	annlsd_agrd_rt	financial data	interest rate
financial_data.csv	dt_nxt_intrst_rt_rst	financial data	next interest rate reset date
financial_data.csv	dflt_stts	financial data	default status of the instrument
financial_data.csv	exit_status	financial data	exit status
financial_data.csv	dt_dflt_stts	financial data	date of the default status of the instrument
financial_data.csv	otstndng_nmnl_amnt	financial data	outstanding nominal amount
financial_data.csv	accrd_intrst	financial data	accrued interest
financial_data.csv	past_due_instrument_indicator	financial data	past due instrument indicator

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
fixed_term_rental_contract.csv	reporting_agent_identifier	fixed term rental contract	reporting agent identifier
fixed_term_rental_contract.csv	rental_contract_identifier	fixed term rental contract	rental contract identifier
fixed_term_rental_contract.csv	reporting_reference_date	fixed term rental contract	reporting reference date
fixed_term_rental_contract.csv	rental_contract_end_date	fixed term rental contract	rental contract end date

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
foreign_legal_entity.csv	reporting_agent_identifier	foreign legal entity	reporting agent identifier
foreign_legal_entity.csv	counterparty_identifier	foreign legal entity	counterparty identifier
foreign_legal_entity.csv	reporting_reference_date	foreign legal entity	reporting reference date
foreign_legal_entity.csv	street	foreign legal entity	street
foreign_legal_entity.csv	city_town_village	foreign legal entity	city / town / village
foreign_legal_entity.csv	postal_code	foreign legal entity	postal code
foreign_legal_entity.csv	country	foreign legal entity	country
foreign_legal_entity.csv	institutional_sector	foreign legal entity	institutional sector
foreign_legal_entity.csv	economic_activity	foreign legal entity	economic activity
foreign_legal_entity.csv	balance_sheet_total	foreign legal entity	balance sheet total
foreign_legal_entity.csv	number_of_employees	foreign legal entity	number of employees
foreign_legal_entity.csv	es_code	foreign legal entity	enterprise size
foreign_legal_entity.csv	legal_form	foreign legal entity	legal form
foreign_legal_entity.csv	date_of_enterprise_size	foreign legal entity	date of enterprise size
foreign_legal_entity.csv	name	foreign legal entity	name

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
immovable_property.csv	reporting_agent_identifier	immovable property	reporting agent identifier
immovable_property.csv	prtctn_id	immovable property	protection identifier
immovable_property.csv	reporting_reference_date	immovable property	reporting reference date
immovable_property.csv	type_of_real_estate_collateral	immovable property	type of real estate collateral
immovable_property.csv	liquidation_value	immovable property	liquidation value
immovable_property.csv	parking_space_attached	immovable property	parking space attached
immovable_property.csv	country	immovable property	country

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
immovable_property_rental_contract_data.csv	reporting_agent_identifier	immovable property-rental contract data	reporting agent identifier
immovable_property_rental_contract_data.csv	prtctn_id	immovable property-rental contract data	protection identifier
immovable_property_rental_contract_data.csv	reporting_reference_date	immovable property-rental contract data	reporting reference date
immovable_property_rental_contract_data.csv	rental_contract_identifier	immovable property-rental contract data	rental contract identifier

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
instrument.csv	reporting_agent_identifier	instrument	reporting agent identifier
instrument.csv	obsrvd_agnt_cd	instrument	observed agent identifier
instrument.csv	reporting_reference_date	instrument	reporting reference date
instrument.csv	cntrct_id	instrument	contract identifier
instrument.csv	instrmnt_id	instrument	instrument identifier
instrument.csv	typ_instrmnt	instrument	type of instrument
instrument.csv	typ_amrtstn	instrument	amortisation type
instrument.csv	crrncy_dnmntn	instrument	currency
instrument.csv	intrst_rt_rst_frqncy	instrument	interest rate reset frequency
instrument.csv	typ_intrst_rt	instrument	interest rate type
instrument.csv	dt_lgl_fnl_mtrty	instrument	legal final maturity date
instrument.csv	cmmtmnt_incptn	instrument	commitment amount at inception

instrument.csv	pymnt_frqncy	instrument	payment frequency
instrument.csv	prjct_fnnc_ln	instrument	project finance loan
instrument.csv	provision_amount	instrument	provision amount
instrument.csv	corep_class	instrument	corep class
instrument.csv	intrst_rt_at_origin	instrument	interest rate at inception
instrument.csv	outstanding_nominal_amount_at_inception	instrument	outstanding nominal amount at inception
instrument.csv	special_asset_management	instrument	special asset management
instrument.csv	recourse	instrument	recourse
instrument.csv	loan_to_value	instrument	loan to value
instrument.csv	loan_to_value_at_inception	instrument	loan to value at inception
instrument.csv	interest_coverage_ratio	instrument	interest coverage ratio
instrument.csv	interest_coverage_ratio_at_inception	instrument	interest coverage ratio at inception
instrument.csv	debt_service_coverage_ratio	instrument	debt service coverage ratio
instrument.csv	debt_service_coverage_ratio_at_inception	instrument	debt service coverage ratio at inception
instrument.csv	interest_only_indicator	instrument	interest-only indicator
instrument.csv	drawn_instrument_indicator	instrument	drawn instrument indicator

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
instrument_past_due.csv	reporting_agent_identifier	instrument past due	reporting agent identifier
instrument_past_due.csv	obsrvd_agnt_cd	instrument past due	observed agent identifier
instrument_past_due.csv	reporting_reference_date	instrument past due	reporting reference date
instrument_past_due.csv	cntrct_id	instrument past due	contract identifier
instrument_past_due.csv	instrmnt_id	instrument past due	instrument identifier
instrument_past_due.csv	arrrs	instrument past due	arrears for the instrument
instrument_past_due.csv	dt_pst_d	instrument past due	date of past due for the instrument

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
instrument_protection_received_data.csv	reporting_agent_identifier	instrument-protection received data	reporting agent identifier
instrument_protection_received_data.csv	obsrvd_agnt_cd	instrument-protection received data	observed agent identifier
instrument_protection_received_data.csv	cntrct_id	instrument-protection received data	contract identifier
instrument_protection_received_data.csv	instrmnt_id	instrument-protection received data	instrument identifier
instrument_protection_received_data.csv	prtctn_id	instrument-protection received data	protection identifier
instrument_protection_received_data.csv	reporting_reference_date	instrument-protection received data	reporting reference date
instrument_protection_received_data.csv	prtctn_allctd_vl	instrument-protection received data	protection allocated value
instrument_protection_received_data.csv	thrd_prty_prrty_clms	instrument-protection received data	third party priority claims against the protection
instrument_protection_received_data.csv	orgnl_prtctn_vl	instrument-protection received data	original protection value
instrument_protection_received_data.csv	dt_orgnl_prtctn_vl	instrument-protection received data	date of original protection value

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
interest_only_instrument.csv	reporting_agent_identifier	interest-only instrument	reporting agent identifier
interest_only_instrument.csv	obsrvd_agnt_cd	interest-only instrument	observed agent identifier
interest_only_instrument.csv	reporting_reference_date	interest-only instrument	reporting reference date
interest_only_instrument.csv	cntrct_id	interest-only instrument	contract identifier
interest_only_instrument.csv	instrmnt_id	interest-only instrument	instrument identifier
interest_only_instrument.csv	dt_end_intrst_only	interest-only instrument	end date of interest-only period

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
joint_liability.csv	reporting_agent_identifier	joint liability	reporting agent identifier
joint_liability.csv	obsrvd_agnt_cd	joint liability	observed agent identifier
joint_liability.csv	counterparty_identifier	joint liability	counterparty identifier
joint_liability.csv	entty_rl	joint liability	counterparty role
joint_liability.csv	cntrct_id	joint liability	contract identifier
joint_liability.csv	instrmnt_id	joint liability	instrument identifier
joint_liability.csv	reporting_reference_date	joint liability	reporting reference date
joint_liability.csv	joint_liability_amount	joint liability	joint liability amount

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
legal_entity.csv	reporting_agent_identifier	legal entity	reporting agent identifier
legal_entity.csv	counterparty_identifier	legal entity	counterparty identifier
legal_entity.csv	reporting_reference_date	legal entity	reporting reference date
legal_entity.csv	lei	legal entity	legal entity identifier
legal_entity.csv	national_identifier	legal entity	national identifier
legal_entity.csv	national_identifier_type_country	legal entity	national identifier type_country
legal_entity.csv	national_identifier_type_type	legal entity	national identifier type_type
legal_entity.csv	resident_legal_entity_indicator	legal entity	resident legal entity indicator
legal_entity.csv	immediate_parent_undertaking_indicator	legal entity	immediate parent undertaking indicator
legal_entity.csv	ultimate_parent_undertaking_indicator	legal entity	ultimate parent undertaking indicator

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
lgd_model_contract.csv	reporting_agent_identifier	LGD model contract	reporting agent identifier
lgd_model_contract.csv	obsrvd_agnt_cd	LGD model contract	observed agent identifier
lgd_model_contract.csv	reporting_reference_date	LGD model contract	reporting reference date
lgd_model_contract.csv	cntrct_id	LGD model contract	contract identifier
lgd_model_contract.csv	lgd_model_id	LGD model contract	LGD model identifier
lgd_model_contract.csv	cure_probability	LGD model contract	probability of cure
lgd_model_contract.csv	regulatory_downturn_lgd	LGD model contract	regulatory downturn LGD
lgd_model_contract.csv	regulatory_rwa	LGD model contract	regulatory RWA
lgd_model_contract.csv	lgd_be	LGD model contract	LGD best estimate

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
lgd_model_debtor.csv	reporting_agent_identifier	LGD model debtor	reporting agent identifier
lgd_model_debtor.csv	entty_rl	LGD model debtor	counterparty role
lgd_model_debtor.csv	counterparty_identifier	LGD model debtor	counterparty identifier
lgd_model_debtor.csv	reporting_reference_date	LGD model debtor	reporting reference date
lgd_model_debtor.csv	lgd_model_id	LGD model debtor	LGD model identifier
lgd_model_debtor.csv	cure_probability	LGD model debtor	probability of cure
lgd_model_debtor.csv	regulatory_downturn_lgd	LGD model debtor	regulatory downturn LGD
lgd_model_debtor.csv	regulatory_rwa	LGD model debtor	regulatory RWA
lgd_model_debtor.csv	lgd_be	LGD model debtor	LGD best estimate

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
lgd_model_instrument.csv	reporting_agent_identifier	LGD model instrument	reporting agent identifier
lgd_model_instrument.csv	obsrvd_agnt_cd	LGD model instrument	observed agent identifier
lgd_model_instrument.csv	reporting_reference_date	LGD model instrument	reporting reference date
lgd_model_instrument.csv	cntrct_id	LGD model instrument	contract identifier
lgd_model_instrument.csv	instrmnt_id	LGD model instrument	instrument identifier

lgd_model_instrument.csv	lgd_model_id	LGD model instrument	LGD model identifier
lgd_model_instrument.csv	cure_probability	LGD model instrument	probability of cure
lgd_model_instrument.csv	regulatory_downturn_lgd	LGD model instrument	regulatory downturn LGD
lgd_model_instrument.csv	regulatory_rwa	LGD model instrument	regulatory RWA
lgd_model_instrument.csv	lgd_be	LGD model instrument	LGD best estimate

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
non_fixed_interest_instrument.csv	reporting_agent_identifier	non-fixed interest instrument	reporting agent identifier
non_fixed_interest_instrument.csv	obsrvd_agnt_cd	non-fixed interest instrument	observed agent identifier
non_fixed_interest_instrument.csv	reporting_reference_date	non-fixed interest instrument	reporting reference date
non_fixed_interest_instrument.csv	cntrct_id	non-fixed interest instrument	contract identifier
non_fixed_interest_instrument.csv	instrmnt_id	non-fixed interest instrument	instrument identifier
non_fixed_interest_instrument.csv	reference_rate_rfrnc_rt_value	non-fixed interest instrument	reference rate_reference rate value
non_fixed_interest_instrument.csv	reference_rate_maturity_value	non-fixed interest instrument	reference rate_maturity value
non_fixed_interest_instrument.csv	intrst_rt_sprd	non-fixed interest instrument	interest rate spread/margin

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
non_land.csv	reporting_agent_identifier	non-land	reporting agent identifier
non_land.csv	prtctn_id	non-land	protection identifier
non_land.csv	reporting_reference_date	non-land	reporting reference date
non_land.csv	measurement_date_of_occupancy	non-land	measurement date of occupancy
non_land.csv	occupancy_rate	non-land	occupancy rate
non_land.csv	total_rentable_surface	non-land	total rentable surface
non_land.csv	street	non-land	street
non_land.csv	city_town_village	non-land	city / town / village
non_land.csv	postal_code	non-land	postal code
non_land.csv	country	non-land	country
non_land.csv	energy_label	non-land	energy label

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
observed_agent_delivery.csv	reporting_agent_identifier	observed agent delivery	reporting agent identifier
observed_agent_delivery.csv	obsrvd_agnt_cd	observed agent delivery	observed agent identifier
observed_agent_delivery.csv	reported_as_counterparty_identifier	observed agent delivery	reported as counterparty identifier
observed_agent_delivery.csv	reporting_reference_date	observed agent delivery	reporting reference date

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
originator_securitized_instrument_data.csv	reporting_agent_identifier	originator-securitized instrument data	reporting agent identifier
originator_securitized_instrument_data.csv	obsrvd_agnt_cd	originator-securitized instrument data	observed agent identifier
originator_securitized_instrument_data.csv	counterparty_identifier	originator-securitized instrument data	counterparty identifier
originator_securitized_instrument_data.csv	entty_rl	originator-securitized instrument data	counterparty role
originator_securitized_instrument_data.csv	cntrct_id	originator-securitized instrument data	contract identifier
originator_securitized_instrument_data.csv	instrmnt_id	originator-securitized instrument data	instrument identifier
originator_securitized_instrument_data.csv	reporting_reference_date	originator-securitized instrument data	reporting reference date

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model

other_loans_instrument.csv	reporting_agent_identifier	other loans instrument	reporting agent identifier
other_loans_instrument.csv	obsrvd_agnt_cd	other loans instrument	observed agent identifier
other_loans_instrument.csv	reporting_reference_date	other loans instrument	reporting reference date
other_loans_instrument.csv	cntrct_id	other loans instrument	contract identifier
other_loans_instrument.csv	instrmnt_id	other loans instrument	instrument identifier
other_loans_instrument.csv	off_blnc_sht_amnt	other loans instrument	off-balance sheet amount

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
overdraft_instrument.csv	reporting_agent_identifier	overdraft instrument	reporting agent identifier
overdraft_instrument.csv	obsrvd_agnt_cd	overdraft instrument	observed agent identifier
overdraft_instrument.csv	reporting_reference_date	overdraft instrument	reporting reference date
overdraft_instrument.csv	cntrct_id	overdraft instrument	contract identifier
overdraft_instrument.csv	instrmnt_id	overdraft instrument	instrument identifier
overdraft_instrument.csv	current_account_type	overdraft instrument	current account type

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
protection_provider.csv	reporting_agent_identifier	protection provider	reporting agent identifier
protection_provider.csv	counterparty_identifier	protection provider	counterparty identifier
protection_provider.csv	reporting_reference_date	protection provider	reporting reference date
protection_provider.csv	immediate_parent_undertaking_identifier	protection provider	immediate parent undertaking identifier
protection_provider.csv	ultimate_parent_undertaking_identifier	protection provider	ultimate parent undertaking identifier

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
protection_provider_protection_received.csv	reporting_agent_identifier	protection provider-protection received	reporting agent identifier
protection_provider_protection_received.csv	counterparty_identifier	protection provider-protection received	counterparty identifier
protection_provider_protection_received.csv	prtctn_id	protection provider-protection received	protection identifier
protection_provider_protection_received.csv	reporting_reference_date	protection provider-protection received	reporting reference date

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
protection_received.csv	reporting_agent_identifier	protection received	reporting agent identifier
protection_received.csv	prtctn_id	protection received	protection identifier
protection_received.csv	reporting_reference_date	protection received	reporting reference date
protection_received.csv	typ_prtctn	protection received	type of protection
protection_received.csv	typ_prtctn_vl	protection received	type of protection value
protection_received.csv	prtctn_vltn_apprch	protection received	protection valuation approach
protection_received.csv	prtctn_vl	protection received	protection value
protection_received.csv	dt_prtctn_vl	protection received	date of protection value
protection_received.csv	expected_liquidation_costs	protection received	expected liquidation costs
protection_received.csv	immovable_property_indicator	protection received	immovable property indicator*

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
quasi_corporation.csv	reporting_agent_identifier	quasi-corporation	reporting agent identifier
quasi_corporation.csv	counterparty_identifier	quasi-corporation	counterparty identifier
quasi_corporation.csv	reporting_reference_date	quasi-corporation	reporting reference date
quasi_corporation.csv	city_town_village	quasi-corporation	city / town / village
quasi_corporation.csv	postal_code	quasi-corporation	postal code
quasi_corporation.csv	country	quasi-corporation	country
quasi_corporation.csv	balance_sheet_total	quasi-corporation	balance sheet total
quasi_corporation.csv	number_of_employees	quasi-corporation	number of employees

quasi_corporation.csv	es_code	quasi-corporation	enterprise size
quasi_corporation.csv	institutional_sector	quasi-corporation	institutional sector
quasi_corporation.csv	economic_activity	quasi-corporation	economic activity
quasi_corporation.csv	legal_form	quasi-corporation	legal form
quasi_corporation.csv	date_of_enterprise_size	quasi-corporation	date of enterprise size

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
recognised_instrument.csv	reporting_agent_identifier	recognised instrument	reporting agent identifier
recognised_instrument.csv	obsrvd_agnt_cd	recognised instrument	observed agent identifier
recognised_instrument.csv	reporting_reference_date	recognised instrument	reporting reference date
recognised_instrument.csv	cntrct_id	recognised instrument	contract identifier
recognised_instrument.csv	instrmnt_id	recognised instrument	instrument identifier
recognised_instrument.csv	type_of_impairment	recognised instrument	type of impairment
recognised_instrument.csv	accmltd_wrtffs	recognised instrument	accumulated write-offs

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
rental_contract.csv	reporting_agent_identifier	rental contract	reporting agent identifier
rental_contract.csv	rental_contract_identifier	rental contract	rental contract identifier
rental_contract.csv	reporting_reference_date	rental contract	reporting reference date
rental_contract.csv	rental_contract_start_date	rental contract	rental contract start date
rental_contract.csv	rental_income	rental contract	rental income
rental_contract.csv	rental_contract_type	rental contract	rental contract type

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
reporting_agent_delivery.csv	reporting_agent_identifier	reporting agent delivery	reporting agent identifier
reporting_agent_delivery.csv	reporting_reference_date	reporting agent delivery	reporting reference date
reporting_agent_delivery.csv	acct_code2	reporting agent delivery	accounting standard
reporting_agent_delivery.csv	reported_as_counterparty_identifier	reporting agent delivery	reported as counterparty identifier

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
revolving_credit_other_than_overdrafts_and_credit_card_debt_instrument.csv	reporting_agent_identifier	revolving credit other than overdrafts and credit card debt instrument	reporting agent identifier
revolving_credit_other_than_overdrafts_and_credit_card_debt_instrument.csv	obsrvd_agnt_cd	revolving credit other than overdrafts and credit card debt instrument	observed agent identifier
revolving_credit_other_than_overdrafts_and_credit_card_debt_instrument.csv	reporting_reference_date	revolving credit other than overdrafts and credit card debt instrument	reporting reference date
revolving_credit_other_than_overdrafts_and_credit_card_debt_instrument.csv	cntrct_id	revolving credit other than overdrafts and credit card debt instrument	contract identifier
revolving_credit_other_than_overdrafts_and_credit_card_debt_instrument.csv	instrmnt_id	revolving credit other than overdrafts and credit card debt instrument	instrument identifier
revolving_credit_other_than_overdrafts_and_credit_card_debt_instrument.csv	off_blnc_sht_amnt	revolving credit other than overdrafts and credit card debt instrument	off-balance sheet amount

.csv filename	.csv column name	Entity type in logical data model	Attribute in logical data model
servicer_instrument_data.csv	reporting_agent_identifier	servicer-instrument data	reporting agent identifier
servicer_instrument_data.csv	obsrvd_agnt_cd	servicer-instrument data	observed agent identifier
servicer_instrument_data.csv	counterparty_identifier	servicer-instrument data	counterparty identifier
servicer_instrument_data.csv	entty_rl	servicer-instrument data	counterparty role
servicer_instrument_data.csv	cntrct_id	servicer-instrument data	contract identifier

servicer_instrument_data.csv	instrmnt_id	servicer-instrument data	instrument identifier
servicer_instrument_data.csv	reporting_reference_date	servicer-instrument data	reporting reference date

3.5 Mapping the overlapping entities and attributes of CRE and AnaCredit

The logical data model of CRE describes its entities as similar as possible as the logical data model of AnaCredit does. The legal basis of AnaCredit is the Regulation (EU) 2016/867 on the collection of granular credit and credit risk data (ECB/2016/13). The CRE reporting agents are also reporting agents for AnaCredit. This section describes for which entities and attributes the logical data model of CRE overlaps with the logical data model of AnaCredit.
The two logical data models have the following entities (and thereby their underlying keys) in common:

- Accounting data
- Address
- Contract
- Counterparty
- Counterparty role
- Credit card debt instrument
- Credit lines other than revolving credit instrument
- Creditor
- Creditor-instrument data
- Current account instrument with credit limit
- Current account instrument with no credit limit
- Debtor
- Debtor default data
- Debtor risk data
- Debtor-instrument data
- Delivery
- Deposits other than reverse repurchase agreements instrument
- Domestic immovable property (in AnaCredit LDM the entity is called “collateral located in a reporting member state)
- Drawn instrument
- Dutch counterparty
- Financial data
- Financial leases instrument
- Fixed interest instrument
- Foreign immovable property (in AnaCredit LDM the entity is called “collateral not located in a reporting member state)
- Foreign legal entity
- Fully derecognised instrument being serviced
- Immediate parent undertaking
- Immovable property
- Instrument
- Instrument not past due
- Instrument past due
- Instrument-protection received data
- Interest-only instrument
- Joint liability
- Logical data model
- Non-fixed interest instrument
- Non-immovable property
- Non-interest-only instrument
- Non-protecton providing counterparty
- Not immediate parent undertaking legal entity
- Observed agent

- Observed agent delivery
- Originator
- Originator-securitized instrument data
- Other loans instrument
- Overdraft instrument
- Protecton provider
- Protection provider-protection received
- Protection received
- Recognised instrument
- Reporting agent
- Reporting agent delivery
- Reverse repurchase agreements instrument
- Revolving credit other than overdrafts and credit card debt instrument
- Servicer
- Servicer-instrument data
- Trade receivables instrument
- Ultimate parent undertaking
- Undrawn instrument

Please note that all keys (identifiers) included in the abovementioned entities should – content-wise – be the same for CRE and for AnaCredit. This should ensure that both datasets can be connected with each other.

The following table lists the overlapping attributes between the two logical data models of CRE and AnaCredit. In the column remarks there is stated whether there are difference in the domain lists. In addition, please read the CRE Manual Part I and Part II closely, because some slight methodological differences might arise between attributes in CRE and AnaCredit due to the different scope and general methodology of CRE in relation to AnaCredit.

CRE			AnaCredit		Remarks
Attribute	**Entity**	**Stage**	**Attribute**	**Entity**	
Accounting standard	Reporting agent delivery	1	Accounting standard	Reporting agent delivery	
Accrued interest	Financial data	1	Accrued interest	Financial data	
Accumulated write-offs	Recognised instrument	1	Accumulated write-offs	Recognised instrument	
Amortisation type	Instrument	1	Amortisation type	Instrument	
Arrears for the instrument	Instrument past due	1	Arrears for the instrument	Instrument past due	
Balance sheet total	Foreign legal entity	2	Balance sheet total	Foreign legal entity in reporting member state	
City / town / village	Address, foreign legal entity, non-land	1, 1, 1	City / town / village, Address city / town / village	Address, foreign counterparty	
Commitment amount at inception	Instrument	1	Commitment amount at inception	Instrument	
Country	Address	1	Country	Address	
Cumulative recoveries since default	Accounting data	2	Cumulative recoveries since default	Accounting data	
Currency	Instrument	1	Currency	Instrument	
Current account type	Overdraft instrument	1	Current account type	Overdraft instrument	
Date of enterprise size	Foreign legal entity	2	Date of enterprise size	Foreign legal entity in reporting member state	

Date of original protection value	Instrument-protection received data	2	Date of original protection value	Protection received	
Date of past due for the instrument	Instrument past due	1	Date of past due for the instrument	Instrument past due	
Date of protection value	Protection received	1	Date of protection value	Protection received	
Date of the default status of the counterparty	Debtor default data	1	Date of the default status of the counterparty	Debtor default data	
Date of the default status of the instrument	Financial data	1	Date of the default status of the instrument	Financial data	
Date of the forbearance and renegotiation status	Accounting data	1	Date of the forbearance and renegotiation status	Accounting data	
Default status of the counterparty	Debtor default data	1	Default status of the counterparty	Debtor default data	
Default status of the instrument	Financial data	1	Default status of the instrument	Financial data	
Drawn instrument indicator	Instrument	1	Drawn instrument indicator	Instrument	
Economic activity	Foreign legal entity	2	Economic activity	Foreign counterparty	
End date of interest-only period	Interest-only instrument	1	End date of interest-only period	Interest-only instrument	
Enterprise size	Foreign legal entity	2	Enterprise size	Foreign legal entity	
Fully derecognized instrument being serviced indicator	Accounting data	1	Fully derecognized instrument being serviced indicator	Accounting data	
Immediate parent undertaking indicator	Legal entity	1	Immediate parent undertaking indicator	Legal entity	
Immovable property indicator	Protection received	1	Immovable property indicator	Protection received	
Inception date	Contract	1	Inception date	Contract	
Institutional sector	Foreign legal entity	2	Institutional sector	Foreign counterparty	
Interest rate	Financial data	1	Interest rate	Financial data	
Interest rate reset frequency	Instrument	1	Interest rate reset frequency	Instrument	
Interest rate spread/margin	Non-fixed interest instrument	1	Interest rate spread/margin	Non-fixed interest instrument	
Interest rate type	Instrument	1	Interest rate type	Instrument	
Interest-only indicator	Instrument	1	Interest-only indicator	Instrument	
Joint liability amount	Joint liability	1	Joint liability amount	Joint liability	
Legal entity identifier	Legal entity	2	Legal entity identifier	Legal entity	
Legal final maturity date	Instrument	1	Legal final maturity date	Instrument	
Legal form	Foreign legal entity	1	Legal form	Foreign legal entity	
Name	Legal entity	1	Name	Foreign counterparty	
National identifier	Legal entity	1	National identifier	Counterparty	
Next interest rate reset date	Financial data	1	Next interest rate reset date	Financial data	

Number of employees	Foreign legal entity	2	Number of employees	Foreign legal entity in reporting member state	
Off-balance sheet amount	Credit card debt instrument, credit lines other than revolving credit instrument, current account instrument with credit limit, other loans instrument, revolving credit other than overdrafts and credit card debt instrument	1	Off-balance sheet amount	Credit card debt instrument, credit lines other than revolving credit instrument, current account instrument with credit limit, other loans instrument, revolving credit other than overdrafts and credit card debt instrument	
Original protection value	Instrument-protection received data	2	Original protection value	Protection received	
Outstanding nominal amount	Financial data	1	Outstanding nominal amount	Financial data	
Past due instrument indicator	Financial data	1	Past due instrument indicator	Financial data	
Payment frequency	Instrument	1	Payment frequency	Instrument	
Postal code	Address, foreign legal entity, non-land	1, 1, 1	Postal code, Address postal code	Address, foreign counterparty	
Probability of default	Debtor risk data	1	Probability of default	Debtor risk data	
Project finance loan	Instrument	1	Project finance loan	Instrument	
Protection allocated value	Instrument-protection received data	1	Protection allocated value	Instrument-protection received data	
Protection provider indicator	Counterparty	1	Protection provider indicator	Counterparty	
Protection valuation approach	Protection received	1	Protection valuation approach	Protection received	
Protection value	Protection received	1	Protection value	Protection received	
Recourse	Instrument	1	Recourse	Instrument	
Reported as counterparty identifier	Observed agent delivery, reporting agent delivery	1	Reported as counterparty identifier	Observed agent delivery, reporting agent delivery	
Settlement date	Instrument	1	Settlement date	Instrument	
Status of forbearance and renegotiation	Accounting data	1	Status of forbearance and renegotiation	Accounting data	
Street	Address, foreign legal entity, non-land	1, 1, 2	Street, address street	Address, foreign counterparty	
Third party priority claims against the protection	Instrument-protection received data	2	Third party priority claims against the protection	Instrument-protection received data	
Type of impairment	Recognised instrument	1	Type of impairment	Impaired instrument	
Type of instrument	Instrument	1	Type of instrument	Instrument	

Type of protection	Protection received	1	Type of protection	Protection received	
Type of protection value	Protection received	1	Type of protection value	Protection received	
Ultimate parent undertaking indicator	Legal entity	1	Ultimate parent undertaking indicator	Legal entity	

3.6 Delivery timelines

The following timelines apply for the different DDA codes:

DDA code	Frequency	Last day of acceptance	Example
DNB_STAT_CRE_GLO_K	Quarterly	Last day of the quarter + 40 calendar days	Q1 2019 last day = 2019-03-31 last date of acceptance= 2019-05-10

3.7 Adjustments and deliveries with retroactive effect

Reporting agents can only submit or resubmit reports if DNB has published a relevant reporting obligation. It is not possible for institutions to submit or resubmit reports without a relevant reporting obligation. Reporting obligations are published in the Digital Reporting Portal.

DNB may demand a resubmission for a previous period. It will publish a new reporting obligation for this purpose.

4 REFERENCE TABLES

Below is the list of reference tables that are available from DNB. The codes in these tables can be used for filtering and clustering in data deliveries.

The reference tables can occur in the logical data model. However, no mapping is available for the data between the file delivery and the delivery, as these are made available in other ways.

The reference tables can be found in the following files, which serve as a source for the initial entry of the entity types in the logical data model:

DNB is responsible for management and maintenance of the reference tables.

4.1 Reporting population and reference population

You can find the versions of the reporting and reference populations that must be used on DNB's CRE web page, as well as the required reporting agent and observed agent identifiers.

https://www.dnb.nl/statistiek/digitaal-loket-rapportages/statistische-rapportages/banken/commercial-real-estate/index.jsp

The spreadsheet reporting population contains the following reference data set:

- List of reporting agents

4.2 Reference data sets

You can find the versions of all reference data sets to be used on DNB's CRE web page:

https://www.dnb.nl/statistiek/digitaal-loket-rapportages/statistische-rapportages/banken/commercial-real-estate/index.jsp

The spreadsheet contains the following reference data sets:

- accounting standard
- amortisation type
- attribute
- attribute combination
- attribute combination type
- corep class
- counterparty role
- country
- currency
- current account type
- default status
- delivery control type
- drawn instrument indicator
- economic activity
- energy label
- entity type
- enterprise size
- exit status
- fully derecognised instrument being serviced indicator
- ifrs9 stage
- immediate parent undertaking indicator
- immovable property indicator
- institutional sector
- interest-only indicator
- interest rate reset frequency
- interest rate type
- legal form type

- legal form type for quasi-corporations
- logical data model
- parking space attached
- payment frequency
- past due instrument indicator
- project finance loan indicator
- protection provider indicator
- protection valuation approach
- recourse indicator
- reference rate maturity type
- reference rate value type
- rental contract type
- resident legal entity indicator
- special asset management
- status of forbearance and renegotiation
- type of impairment
- type of instrument
- type of protection
- type of protection value
- type of real estate collateral
- ultimate parent undertaking indicator

4.3 Metadata reference data sets

The sets containing the logical data model are included in the reference data sets listed in Section 0. Below is a more detailed description of the most important of these sets for reporting purposes. They are used to check the delivery. As described in Section 2.4.1, under “File integrity check”, a checksum is required for each entity type in the logical data model. The reference data sets describe the reference data required for automatic validation of the file delivery. See Section 2.7.6 for more information on automatic validation.

5 AGREEMENTS AND CONTACT PERSONS

This section describes all agreements made in detail, so that anyone having to process the data can do so based on the following information.

5.1 Filing and storage

DNB complies with the applicable legislation and regulations with respect to filing and storage, and the relevant retention periods.

5.2 Contact data

No.	Position	Name	email and/or telephone no.
1	Manager	Mr. Ron Jongen	CRE@dnb.nl
2	Domain expert	Mr Rob Nijskens	CRE@dnb.nl
3	Domain expert	Mr Jairo Rivera Rozo	CRE@dnb.nl
4	Logical Data Modeler	Mr. Arjan Bos	CRE@dnb.nl

5.3 Changes to the agreement

Changes to the Logical Data Model, Data Delivery Agreement and the Reference codes are communicated to all reporting agents. Subsequent versions (following version 1.0) will be accompanied by detailed release notes, stating the precise changes compared to a previous release.

APPENDIX A – VALIDATION RULES THAT DETERMINE THE REPORTING OBLIGATION STATUS[13]

A list of all blocking validation rules for CRE datadeliveries is included in this appendix. These validations are additional to the explicitly modelled blocking validation rules that are already included in the logical data model.

The violation of a blocking validation rule will result in a **Non-accepted** status of the reporting obligation.

The result of the rules described in this paragraph as well as the blocking rules defined in the logical data model will automatically be communicated back to the reporting agent (see 2.5.1).

These validation rules are taken directly from the business rules that are defined in the logical data model, where they apply to the artefact that they act upon. Also, within the logical data model, there is a pseudo code expression giving hints on how to check the validity.

Code	Description	business rule classification	business rule scope	severity
dmc0001	The reporting reference date is always the last day of a quarter.	domain constraint	Checked within the data delivery	blocking
dmc0004	Mandatory constraint for a column with Non-applicable allowed	domain constraint	Checked within the data delivery	blocking
dmc0005	Mandatory constraint for a column with Non-applicable allowed	domain constraint	Checked within the data delivery	blocking
dmc0007	Mandatory constraint for a column with Non-applicable allowed	domain constraint	Checked within the data delivery	blocking
dmc0011	Mandatory constraint for a column with Non-applicable allowed	domain constraint	Checked within the data delivery	blocking
dmc0012	Mandatory constraint for a column with Non-applicable allowed	domain constraint	Checked within the data delivery	blocking
dmc0014	Mandatory constraint for a column with Non-applicable allowed	domain constraint	Checked within the data delivery	blocking
dmc0015	Mandatory constraint for a column with Non-applicable allowed	domain constraint	Checked within the data delivery	blocking
dmc0016	Mandatory constraint for a column with Non-applicable allowed	domain constraint	Checked within the data delivery	blocking
dmc0017	Mandatory constraint for a column with Non-applicable allowed	domain constraint	Checked within the data delivery	blocking
dmc0018	Mandatory constraint for a column with Non-applicable allowed	domain constraint	Checked within the data delivery	blocking
dmc0019	Mandatory constraint for a column with Non-applicable allowed	domain constraint	Checked within the data delivery	blocking
dmc0020	Mandatory constraint for a column with Non-applicable allowed	domain constraint	Checked within the data delivery	blocking
dmc0021	Mandatory constraint for a column with Non-applicable allowed	domain constraint	Checked within the data delivery	blocking
dmc0026	Mandatory constraint for attribute 'accrued interest'.	domain constraint	Checked within the data delivery	blocking
dmc0038	Mandatory constraint for attribute 'commitment amount at inception' of entity type 'instrument'.	domain constraint	Checked within the data delivery	blocking
dmc0039	Mandatory constraint for attribute 'interest coverage ratio' of entity type 'instrument'.	domain constraint	Checked within the data delivery	blocking
dmc0040	Mandatory constraint for attribute 'debt service coverage ratio' of entity type 'instrument'.	domain constraint	Checked within the data delivery	blocking
omc0037	If the LEI is supplied and the counterparty is a foreign counterparty, only then the national identifier, national identifier type_type and national identifier type_country are optional. This validation check ensures that the value reported for the 'national identifier' attribute	other model constraint	Checked within the data delivery	blocking

[13] A list of all blocking and signalling validation rules is published on the DNB website in xls format as well

	is consistent with the 'legal entity Identifier' attribute. This means that either a valid value has to be reported for the legal entity identifier or a valid entry has to be provided in the national identifier. Not reporting a value for both attributes constitutes a breach of this consistency validation check.			
omc0105	This business rule validates whether the observed agent is present in the published list of the reporting population. For each reporting agent identifier it is stated which observed agent identifiers should be reported. In this way reporting agents cannot report observed agent identifiers which are related to another reporting agent. Also, all observed agents must be reported.	other model constraint	Checked within the data delivery	blocking
spc0001	Interest-only indicator must correspond to the subtype that is used.	specialisation model constraint	Checked within the data delivery	blocking
spc0002	Rental contract type must correspond to the subtype that is used.	specialisation model constraint	Checked within the data delivery	blocking
spc0003	Counterparty type indicator must correspond to the subtype that is used.	specialisation model constraint	Checked within the data delivery	blocking
spc0004	The type of real estate collateral of the protection must correspond to the subtype that is used.	specialisation model constraint	Checked within the data delivery	blocking
spc0006	Resident legal entity indicator must correspond to the subtype that is used.	specialisation model constraint	Checked within the data delivery	blocking
spc0008	Fully derecognised instrument being serviced indicator must correspond to the subtype that is used.	specialisation model constraint	Checked within the data delivery	blocking
spc0009	Counterparty role must correspond to the subtype that is used	specialisation model constraint	Checked within the data delivery	blocking
spc0011	Current account type must correspond to the subtype that is used.	specialisation model constraint	Checked within the data delivery	blocking
spc0012	Enumeration type must correspond to the subtype that is used.	specialisation model constraint	Checked within the data delivery	blocking
spc0013	Immediate parent undertaking indicator must correspond to the subtype that is used.	specialisation model constraint	Checked within the data delivery	blocking
spc0014	Immovable property indicator must correspond to the subtype that is used.	specialisation model constraint	Checked within the data delivery	blocking
spc0015	Country must correspond to the subtype that is used. Immovable property in The Netherlands is domestic and immovable porperty not in The Netherlands is foreign.	specialisation model constraint	Checked within the data delivery	blocking
spc0016	Protection provider indicator must correspond to the subtype that is used.	specialisation model constraint	Checked within the data delivery	blocking
spc0019	The type of instrument of the instrument must correspond to the subtype that is used.	specialisation model constraint	Checked within the data delivery	blocking
spc0020	Ultimate parent undertaking indicator must correspond to the subtype that is used.	specialisation model constraint	Checked within the data delivery	blocking
spc0021	Past due instrument indicator must correspond to the subtype that is used.	specialisation model constraint	Checked within the data delivery	blocking
spc0023	Drawn instrument indicator must correspond to the subtype that is used.	specialisation model constraint	Checked within the data delivery	blocking
spc0024	Interest rate type must correspond to the subtype that is used.	specialisation model constraint	Checked within the data delivery	blocking
tpc0007	if the 'type of protection' in 'protection received' equals "residential real estate collateral", "offices and commercial premises", or "commercial real estate collateral", the value of the 'immovable property indicator' must be set to "immovable property". For all other values of 'type of protection', the value of the 'immovable property indicator' must be set to "non-immovable property". This validation check ensures that the value reported for the 'real estate collateral location' attribute is consistent with the 'type of protection' attribute for specific types of	tuple constraint	Checked within the data delivery	blocking

	protection items. This means that for the protection items of residential real estate, commercial real estate and offices and commercial premises, the location of the protection item must be reported.			
tpc0008	Date of default status of the instrument may only be reported as "Non-applicable" when the attribute default status of the instrument is reported as "Non-applicable". This validation check ensures that the value reported for the 'probability of default' attribute is consistent with the 'date of the default status of the counterparty' and 'Date of the default status of the instrument' attributes. This means that a probability of default may have a value of 100% if a default status was assessed at a certain date either at instrument or counterparty level.	tuple constraint	Checked within the data delivery	blocking
tpc0031	legal entity tpc0031 national identifier conforms to format business rule validates if the counterparty national identifier matches the pattern from the specified national identifier type. Matching is done by regular expression comparison as specified in the list of national identifiers from the AnaCredit page of the ECB website.	tuple constraint	Checked within the data delivery	blocking
tpc0032	Checks if other mandatory indicators are there if the counterparty is NOT "Non-applicable" Checks the indicators: 'protection provider indicator' 'counterparty type indicator'	tuple constraint	Checked within the data delivery	blocking
tpc0038	Make sure that the value of attribute ‘national identifier type_type’ corresponds to the value of the attribute national identifier type_country. In case ‘national identifier type_type’ contains a value starting with "GEN_", then national identifier type_country must contain the ISO country code of the country to which the “GEN_” relates. This cannot be a country for which “GEN_” is not allowed. At the moment “GEN_” is only allowed for those countries not mentioned in the column “Country ISO code” in the list of national identifier on the ECB website, unless the column “Notes” explicitly mentions that for a specific country in the list a “GEN_” is allowed.	tuple constraint	Checked within the data delivery	blocking

APPENDIX B –SIGNALLING[14] & PLAUSIBILITY RULES THAT MIGHT LEAD TO A NEW OBLIGATION TO RESUBMIT

The rules listed in this appendix will not influence the status of the reporting obligation. It can however lead to a new obligation to resubmit the data for a given period.

Two types of signalling rules are identified:

[1] Signalling rules that have a binary outcome (True/False);
[2] Plausibility rules that need human interpretation. These rules should assess the plausibility of the CRE data reported. In general, these rules can consist of outlier detection based on predefined statistical thresholds and can also consist of consistency checks against other datasets, like BSI and MIR statistics. More information on these type of rules will follow as soon as possible.

These signalling and plausibility rules are derived directly from the business rules that are defined in the logical data model, where they are attached to the artefact that they act upon. Also, within the logical data model, there is a pseudo code expression giving hints on how to check the validity.

Code	Comment	Business rule classification	Business rule scope	severity
etc0001	This validation check ensures that the value reported for the 'interest coverage ratio at inception' attribute is consistent between the current reference date (T) and the previous available reference date (T-1). This means that the value reported cannot be changed	entity type constraint	Checked within the data delivery	signalling
etc0003	A change in the value reported in the 'default status of the instrument' attribute corresponds to a change in the value reported in the 'date of the default status of the instrument' attribute.	entity type constraint	Checked with data outside of the data delivery	signalling
etc0004	This validation check ensures that the value reported for the 'debt service coverage ratio' attribute is consistent between the current reference date (T) and the previous available reference date (T-1). This means that the value reported cannot be changed	entity type constraint	Checked within the data delivery	signalling
etc0005	This validation check ensures that a change in the 'status of forbearance and renegotiation' has a corresponding change in the 'date of the forbearance and renegotiation status'.	entity type constraint	Checked with data outside of the data delivery	signalling
etc0006	This validation check ensures that a change in the 'default status of the counterparty' attribute has a corresponding change in the 'date of the default status of the counterparty' attribute. This means that the value of one attribute cannot change without a proper change in the value of the other attribute.	entity type constraint	Checked with data outside of the data delivery	signalling
etc0009	This validation check ensures that a change in the 'enterprise size' attribute has a corresponding change in the 'date of enterprise size' attribute. This means that the assessment of size cannot be changed without a corresponding change in the date.	entity type constraint	Checked with data outside of the data delivery	signalling
etc0010	This validation check ensures that the value reported for the 'date of protection value' attribute is consistent with the 'date of protection value' attribute over time. This means that a change in the date of protection value cannot change to a date in the past.	entity type constraint	Checked with data outside of the data delivery	signalling
etc0012	This validation check ensures that the value reported for the 'commitment amount at inception' attribute is consistent between the current reference date (T) and the previous available reference date (T-1). This means that the value reported cannot be changed	entity type constraint	Checked with data outside of the data delivery	signalling
etc0013	This validation check ensures that the value reported for the 'loan to value at inception' attribute is consistent between the current reporting reference date (T) and the previous available reporting reference date (T-1). This	entity type constraint	Checked with data outside of the data delivery	signalling

[14] A list of all blocking and signalling validation rules is published on the DNB website in xls format as well

	means that the value of the reported attribute cannot be changed.			
etc0014	This validation check ensures that the value reported for the 'type of protection' attribute is consistent between the current reporting reference date (T) and the previous available reporting reference date (T-1). This means that the value of the reported attribute cannot be changed.	entity type constraint	Checked with data outside of the data delivery	signalling
etc0015	This validation check ensures that the value reported for the 'original protection value' attribute is consistent between the current reporting reference date (T) and the previous available reporting reference date (T-1). This means that the value of the reported attribute cannot be changed.	entity type constraint	Checked with data outside of the data delivery	signalling
etc0016	This validation check ensures that the value reported for the 'date of original protection value' attribute is consistent between the current reference date (T) and the previous available reference date (T-1). This means that the value of the reported attribute cannot be changed.	entity type constraint	Checked within the data delivery	signalling
etc0018	This validation check ensures that the value reported for the 'country' attribute is consistent between the current reporting reference date (T) and the previous available reporting reference date (T-1). This means that the value of the reported attribute cannot be changed.	entity type constraint	Checked with data outside of the data delivery	signalling
etc0019	This validation check ensures that the value reported for the 'postal code' attribute is consistent between the current reporting reference date (T) and the previous available reporting reference date (T-1). This means that the value of the reported attribute cannot be changed.	entity type constraint	Checked with data outside of the data delivery	signalling
etc0020	This validation check ensures that the value reported for the 'interest rate at inception' attribute is consistent between the current reporting reference date (T) and the previous available reporting reference date (T-1). This means that the value of the reported attribute cannot be changed.	entity type constraint	Checked with data outside of the data delivery	signalling
etc0023	This validation check ensures that the value reported for the 'currency' attribute is consistent between the current reporting reference date (T) and the previous available reporting reference date (T-1). This means that the value of the reported attribute cannot be changed.	entity type constraint	Checked with data outside of the data delivery	signalling
etc0024	This validation check ensures that the value reported for the 'legal entity identifier' attribute is consistent between the current reporting reference date (T) and the previous available reporting reference date (T-1). This means that the value of the reported attribute cannot be changed.	entity type constraint	Checked with data outside of the data delivery	signalling
etc0025	This validation check ensures that the value reported for the 'resident legal entity indicator' attribute is consistent between the current reporting reference date (T) and the previous available reporting reference date (T-1). This means that the value of the reported attribute cannot be changed.	entity type constraint	Checked with data outside of the data delivery	signalling
etc0026	This validation check ensures that the value reported for the 'national identifier' attribute is consistent between the current reporting reference date (T) and the previous available reporting reference date (T-1). This means that the value of the reported attribute cannot be changed.	entity type constraint	Checked with data outside of the data delivery	signalling
etc0028	This validation check ensures that the value reported for the 'counterparty type indicator' attribute is consistent between the current reporting reference date (T) and the previous available reporting reference date (T-1). This means that the value of the reported attribute cannot be changed.	entity type constraint	Checked with data outside of the data delivery	signalling
etc0032	This validation check ensures that the value reported for the 'outstanding nominal amount at inception' attribute is consistent between the current reporting reference date (T) and the previous available reporting reference date (T-1). This means that the value of the reported attribute cannot be changed.	entity type constraint	Checked with data outside of the data delivery	signalling
etc0033	This validation check ensures that the value reported for the 'immovable property indicator*' attribute is consistent between the current reporting reference date (T) and the previous available reporting reference date (T-1). This means that the value of the reported attribute cannot be changed.	entity type constraint	Checked with data outside of the data delivery	signalling

etc0034	This validation check ensures that the value reported for the 'type of instrument' attribute is consistent between the current reporting reference date (T) and the previous available reporting reference date (T-1). This means that the value of the reported attribute cannot be changed.	entity type constraint	Checked with data outside of the data delivery	signalling
etc0036	This validation check ensures that the value reported for the 'amortisation type' attribute is consistent between the current reporting reference date (T) and the previous available reporting reference date (T-1). This means that the value of the reported attribute cannot be changed.	entity type constraint	Checked with data outside of the data delivery	signalling
etc0037	This validation check ensures that if the attribute 'interest rate type' contains the value "Mixed", the value reported for the 'interest rate type' attribute is consistent between the current reporting reference date (T) and the previous available reporting reference date (T-1). This means that the value of the reported attribute cannot be changed.	entity type constraint	Checked with data outside of the data delivery	signalling
etc0038	This validation check ensures that the value reported for the 'regulatory EAD at inception' attribute is consistent between the current reporting reference date (T) and the previous available reporting reference date (T-1). This means that the value of the reported attribute cannot be changed.	entity type constraint	Checked within the data delivery	signalling
etc0039	This validation check ensures that a change in the 'enterprise size' attribute has a corresponding change in the 'date of enterprise size' attribute. This means that the assessment of size cannot be changed without a corresponding change in the date.	entity type constraint	Checked with data outside of the data delivery	signalling
omc0001	This validation check ensures that when the value reported for the 'measurement date of occupancy' (T) of a certain protection does not change compared to the previous available reporting reference date (T-1), that the value reported for the 'occupancy rate' cannot change as well.	other model constraint	Checked with data outside of the data delivery	signalling
omc0002	When the object is vacant, which means there is no rental contract, the occupancy rate real estate collalteral should be "0".	other model constraint	Checked within the data delivery	signalling
omc0003	An instrument can only be in default when the instrument is already past due. So the value reported in the 'date of past due for the instrument' attribute must be earlier than the value reported in 'date of the default status of the instrument' for those instruments not having status "not in default".	other model constraint	Checked within the data delivery	signalling
omc0004	if the outstanding nominal amount exceeds the amount which was committed in accordance with the contract under the instrument, the off-balance sheet amount to be reported is EUR 0	other model constraint	Checked within the data delivery	signalling
omc0005	Attribute 'next interest rate reset date' should be reported as "non-applicable" when the attribute 'interest rate reset frequency' is reported as "non-applicable"	other model constraint	Checked within the data delivery	signalling
omc0006	If attribute default status of the counterparty is filled with value "not in default" or "Non-applicable", then the probability of cure should have the value "Non-applicable".	other model constraint	Checked within the data delivery	signalling
omc0007	If attribute default status of the instrument is filled with value "not in default" or "Non-applicable", then the probability of cure should have the value "Non-applicable".	other model constraint	Checked within the data delivery	signalling
omc0008	Enterprise size is only mandatory when the foreign legal entity has one of the following roles: * debtor * protection provider * immediate parent undertaking * ultimate parent undertaking * originator * servicer	other model constraint	Checked within the data delivery	signalling
omc0010	Number of employees is only mandatory when the foreign legal entity has one of the following roles: * debtor * protection provider * immediate parent undertaking * ultimate parent undertaking * originator	other model constraint	Checked within the data delivery	signalling

	In all other cases the value "Non-applicable" has to be reported			
omc0011	Balance sheet total is only mandatory when the foreign legal entity has one of the following roles: * debtor * protection provider * immediate parent undertaking * ultimate parent undertaking * originator	other model constraint	Checked within the data delivery	signalling
omc0012	Economic activity is mandatory when the foreign legal entity is not a reporting agent nor an observed agent.	other model constraint	Checked within the data delivery	signalling
omc0013	This validation check ensures that the values reported for the 'protection value' attribute is consistent with the 'protection allocated value' attribute. This means that in accordance with p. 175 of Part II of the AnaCredit Manual (which states that the protection allocated value is the maximum amount of the protection value that can be considered as credit protection for the instrument) for any combination of instrument and protection, the protection allocated value cannot exceed the actual total value of the protection item. This however excludes cases where the type of protection value is a notional amount – which might have a higher market value (e.g. 2 year government bonds with negative yield) as set out in Part III of the AnaCredit Manual, Table 8.	other model constraint	Checked within the data delivery	signalling
omc0014	If interest rate is "non-applicable" then interest rate type is "non-applicable" and vice versa	other model constraint	Checked within the data delivery	signalling
omc0021	If there is more than one debtor taking part in an instrument, then for each debtor reported in the counterparty-instrument data set, a joint liabilities record must exist.	other model constraint	Checked within the data delivery	signalling
omc0023	The settlement date of the instrument must be either on the inception date of the contract, or later than the inception date of the contract.	other model constraint	Checked within the data delivery	signalling
omc0024	If the legal final maturity date is not "Non-applicable", then the legal final maturity date of the instrument must be either on the inception date of the contract, or later than the inception date of the contract.	other model constraint	Checked within the data delivery	signalling
omc0025	The liquidation value at reporting reference date cannot be higher than the protection value at reporting reference date.	other model constraint	Checked within the data delivery	signalling
omc0026	When immovable property is foreign then energy label should be reported as 'Non-applicable'	other model constraint	Checked within the data delivery	signalling
omc0029	Default status of the instrument can only be reported as "Non-applicable" when the default status of the debtor is different from "Non-applicable".	other model constraint	Checked within the data delivery	signalling
omc0031	The reporting reference date must match the date given as the reporting reference date in the dnbmetadata.xml that is part of the data delivery set.	other model constraint	Checked within the data delivery	signalling
omc0032	The reporting agent identifier must match the identifier given as the reporting agent identifier in the dnbmetadata.xml that is part of the data delivery set.	other model constraint	Checked within the data delivery	signalling
omc0034	For each entity type E, the total number of rows of E must correspond to the value of the attribute 'rowcount' in the entity type 'entity type delivery' for E.	other model constraint	Checked within the data delivery	signalling
omc0044	When the debtor is also a legal entity, then the ultimate parent undertaking is mandatory.	other model constraint	Checked within the data delivery	signalling
omc0045	When the debtor is also a legal entity, then the immediate parent undertaking is mandatory.	other model constraint	Checked within the data delivery	signalling
omc0046	When the protection provider is also a legal entity, then the ultimate parent undertaking is mandatory.	other model constraint	Checked within the data delivery	signalling
omc0047	When the protection provider is also a legal entity, then the immediate parent undertaking is mandatory.	other model constraint	Checked within the data delivery	signalling

omc0048	The value reported in the 'end date of interest-only period' attribute cannot be earlier than the value reported in 'inception date'. This is because interest-only period cannot end before inception date.	other model constraint	Checked within the data delivery	signalling
omc0049	The value reported in the 'legal final maturity date' attribute cannot be earlier than the value reported in 'settlement date'. In principle, an instrument cannot reach its maturity before it has been settled i.e. before any funds have been disbursed.	other model constraint	Checked within the data delivery	signalling
omc0050	The value reported in the 'legal final maturity date' attribute cannot be earlier than the value reported in 'end date of interest-only period'. This means that the end date of the interest-only period can only be before the instrument reaches its maturity.	other model constraint	Checked within the data delivery	signalling
omc0052	The value reported in the 'legal final maturity date' attribute cannot be earlier than the value reported in 'next interest rate reset date'. This means that the date of the net interest rate reset can only be before the instrument reaches its maturity.	other model constraint	Checked within the data delivery	signalling
omc0053	When the inception date of a contract is higher than 31-12-2015, then the attributes 'interest rate at inception', 'loan to value at inception', 'outstanding nominal amount at inception', 'regulatory EAD at inception', 'debt service coverage ratio at inception' and 'interest coverage ratio at inception' must be filled. In all other cases these attributes are optional and thus can be blank or "Non-applicable".	other model constraint	Checked within the data delivery	signalling
omc0057	The value reported in the 'next interest rate reset date' attribute cannot be earlier than the value reported in 'inception date'. This means that the interest rate reset date can only occur at or after the inception date of the instrument.	other model constraint	Checked within the data delivery	signalling
omc0058	The value reported in the 'date of the default status of the instrument' attribute cannot be earlier than the value reported in 'inception date'. This means that a default assessed at instrument level can only occur at or after the inception date of the instrument.	other model constraint	Checked within the data delivery	signalling
omc0059	The value reported in the 'date of past due for the instrument' attribute cannot be earlier than the value reported in 'inception date'. This means that an instrument can only become past due at or after its inception date.	other model constraint	Checked within the data delivery	signalling
omc0060	The value reported in the 'date of past due for the instrument' attribute cannot be earlier than the value reported in 'settlement date'. This means that an instrument can only become past due at or after the time when an amount has been disbursed.	other model constraint	Checked within the data delivery	signalling
omc0061	The value reported in the 'next interest rate reset date' attribute cannot be earlier than the value reported in 'settlement date'. This means that an interest rate reset can only occur at or after the time when funds have been disbursed.	other model constraint	Checked within the data delivery	signalling
omc0062	The value reported in the 'end date of interest-only period' attribute cannot be earlier than the value reported in 'settlement date'. This means that given its existence, an interest-only period cannot be a date before the actual funds have been disbursed.	other model constraint	Checked within the data delivery	signalling
omc0066	Checks if the value reported for the 'outstanding nominal amount' attribute is consistent with the 'joint liability amount' attribute. In accordance with Part II of the AnaCredit Manual, p. 159, note that a given debtor cannot be liable for an amount greater than the outstanding nominal amount.	other model constraint	Checked within the data delivery	signalling
omc0068	Checks if the value reported for the 'date of the forbearance and renegotiation status' attribute is consistent with the 'inception date' attribute. According to Part II of the AnaCredit Manual, p. 130, the date of the forbearance and renegotiation status for instruments cannot be earlier than their respective inception date.	other model constraint	Checked within the data delivery	signalling
omc0074	This validation check ensures that an originating counterparty is reported accordingly for all instruments where the creditor is reported as a financial vehicle corporation (FVC). The check is performed by comparing the 'counterparty identifier', 'institutional sector' and 'counterparty role' attributes.	other model constraint	Checked within the data delivery	signalling

	DNB will check this against foreign legal entity that are creditor. In terms of the DNB logical data model, it also means that all instruments for these creditors should be occurrences of the entity type 'securitised instrument'.			
omc0075	This validation check ensures that an originating counterparty is reported accordingly for all instruments where the creditor is reported as a financial vehicle corporation (FVC). The check is performed by comparing the 'counterparty identifier', 'institutional sector' and 'counterparty role' attributes. DNB will check this against the information of the counterparties that are received from the Dutch national statistics institute CBS.	other model constraint	Checked with data outside of the data delivery	signalling
omc0076	This validation check ensures that that the same counterparty is not both a creditor and a debtor for the same instrument. This is performed by comparing a combination of unique identifiers with the role of the counterparty.	other model constraint	Checked within the data delivery	signalling
omc0077	This validation check ensures that the same counterparty is not both a creditor and a protection provider for the same instrument. This is performed by comparing a combination of unique identifiers with the role of the counterparty.	other model constraint	Checked within the data delivery	signalling
omc0083	This validation check ensures that the value reported for the 'project finance loan' attribute is consistent between the current reporting reference date (T) and the previous available reporting reference date (T-1). This means that the value of the 'project finance loan' attribute can only change if a renegotiation has taken place between the two relevant reporting reference periods.	other model constraint	Checked with data outside of the data delivery	signalling
omc0085	This validation check ensures that the value reported for the 'recourse' attribute is consistent between the current reporting reference date (T) and the previous available reporting reference date (T-1). This means that the value of the 'recourse' attribute can only change if a renegotiation has taken place between the two relevant reporting reference periods and thus the attribute 'date of the forbearance and renegotiation status' has been updated.	other model constraint	Checked with data outside of the data delivery	signalling
omc0087	This validation check ensures that if an undrawn instrument is of type "credit card debt", "revolving credit other than overdrafts and credit card debt", "credit lines other than revolving credit", "other loans", or "overdraft" the value reported for the 'off-balance-sheet amount' should be positive.	other model constraint	Checked within the data delivery	signalling
omc0094	This validation check ensures that the values reported for the 'default status of the counterparty' and 'default status of the Instrument' attributes are consistent with the 'Cumulative recoveries since default' attribute. This means that counterparties or instruments for which the cumulative recoveries principle does not apply are not in default.	other model constraint	Checked within the data delivery	signalling
omc0098	National identifier is only allowed to be "Not required", when the value of the attribute 'identifier name' of the entity type 'national identifier type' is equal to "Non-applicable" or "Kein Registereintrag (Not applicable)". And in these cases, only the value "Not required" is allowed as national identifier.	other model constraint	Checked within the data delivery	signalling
omc0100	The data attribute regulatory EAD of the EAD model must be reported at least at one of the three levels available, i.e. debtor, contract and instrument.	other model constraint	Checked within the data delivery	signalling
omc0101	The data attribute regulatory RWA of the EAD model must be reported at least at one of the three levels available, i.e. debtor, contract and instrument.	other model constraint	Checked within the data delivery	signalling
omc0102	The data attribute probability of cure of the LGD model must be reported at least at one of the three levels available, i.e. debtor, contract and instrument.	other model constraint	Checked within the data delivery	signalling

omc0103	The data attribute regulatory downturn LGD of the LGD model must be reported at least at one of the three levels available, i.e. debtor, contract and instrument.	other model constraint	Checked within the data delivery	signalling
omc0104	The data attribute regulatory RWA of the LGD model must be reported at least at one of the three levels available, i.e. debtor, contract and instrument.	other model constraint	Checked within the data delivery	signalling
omc0116	A validation rule should be added which checks that in case a legal entity is classified as Dutch, the Dutch national identifier is either a KvK-number or a RSIN-number.	other model constraint	Checked within the data delivery	signalling
omc0117	Enterprise size is only mandatory when the quasi corporation has one of the following roles: * debtor * protection provider * immediate parent undertaking * ultimate parent undertaking * originator * servicer	other model constraint	Checked within the data delivery	signalling
omc0119	Number of employees is only mandatory when the quasi corporation has one of the following roles: * debtor * protection provider * immediate parent undertaking * ultimate parent undertaking * originator	other model constraint	Checked within the data delivery	signalling
omc0120	Balance sheet total is only mandatory when the quasi-corporation has one of the following roles: * debtor * protection provider * immediate parent undertaking * ultimate parent undertaking * originator	other model constraint	Checked within the data delivery	signalling
omc0122	When there is rental income for the immovable property that is securing this instrument, then the interest coverage ratio is mandatory. When the instrument has a protection received that is immovable property, and that immovable property is linked to a rental contract and that rental contract has income, then the interest coverage ratio is mandatory.	other model constraint	Checked within the data delivery	signalling
omc0123	When there is rental income for the immovable property that is securing this instrument, then the debt service coverage ratio is mandatory. When the instrument has a protection received that is immovable property, and that immovable property is linked to a rental contract and that rental contract has income, then the debt service coverage ratio is mandatory.	other model constraint	Checked within the data delivery	signalling
tpc0003	For instruments of mixed interest rate type, the interest rate reset frequency should aways be "other frequency"	tuple constraint	Checked within the data delivery	signalling
tpc0006	interest rate reset frequency' should be reported as "non-applicable" when the attribute 'interest rate type' is reported as "fixed"	tuple constraint	Checked within the data delivery	signalling
tpc0009	When an instrument has a protection having type of protection of "Financial guarantees other than credit derivatives", then the protection value is "Non-applicable".	tuple constraint	Checked within the data delivery	signalling
tpc0012	When the amortisation type is - 'French', or - 'Fixed amortisation schedule' Then the interest-only indicator must be a "non-interest-only instrument". In other cases of amortisation type, both values for interest-only indicator are possible. This validation check ensures that the value reported for the 'amortisation type' attribute is consistent with the 'end	tuple constraint	Checked within the data delivery	signalling

	date of interest-only period' attribute given specific types of instruments. This means that for instruments with interest rate types which do not have an interest-only period, the 'end date of interest-only period' attribute is reported as “Non-applicable”.			
tpc0013	The value reported in the 'reporting reference date' attribute cannot be earlier than the value reported in 'Inception date'. This means that the instrument has to be launched in order to be reported.	tuple constraint	Checked within the data delivery	signalling
tpc0014	The value reported in the 'next interest rate reset date' attribute cannot be earlier than the value reported in 'reporting reference date'. This means that the next interest rate reset cannot occur in the past.	tuple constraint	Checked within the data delivery	signalling
tpc0015	The value reported in the 'reference date' attribute cannot be earlier than the value reported in 'date of the default status of the instrument'. This means that, when assessed at instrument level, the date of the default status cannot be in the future.	tuple constraint	Checked within the data delivery	signalling
tpc0016	The value reported in the 'reporting reference date' attribute cannot be earlier than the value reported in 'date of past due for the instrument'. This means that a past due date cannot be in the future.	tuple constraint	Checked within the data delivery	signalling
tpc0017	Checks if the value reported for the 'default status of the instrument' attribute is consistent with the 'arrears for the instrument' attribute. This means that for instruments that are defaulted because they are past due, the arrears are a positive amount. In turn, this means that in the above case, the value of 'past due instrument indicator' must be "instrument past due". This implies that the entity type 'instrument past due' must be reported, and thus, the 'arrears for the instrument' attribute must be reported.	tuple constraint	Checked within the data delivery	signalling
tpc0018	The value reported in the 'legal final maturity date' attribute cannot be earlier than the value reported in 'reporting reference date'.	tuple constraint	Checked within the data delivery	signalling
tpc0019	Checks if the value reported for the 'reference date' attribute is consistent with the 'date of the forbearance and renegotiation status' attribute. This means that the date of forbearance and renegotiation status of the instrument cannot be a date in the future.	tuple constraint	Checked within the data delivery	signalling
tpc0020	This validation check ensures that the value reported for the 'reporting reference date' attribute is consistent with the 'date of enterprise size' attribute. This means that the date of enterprise size cannot be in the future	tuple constraint	Checked within the data delivery	signalling
tpc0022	This validation check ensures that the value reported for the 'institutional sector' attribute is consistent with the 'economic activity' attribute for financial corporations. This means that institutions which have been reported as a financial corporation are reported with the economic activity corresponding to a financial institution. The codes used represent the first two digits of level 2, 3 or 4 NACE codes.	tuple constraint	Checked within the data delivery	signalling
tpc0024	This validation check ensures that the value reported for the 'reporting reference date' attribute is consistent with the 'date of the default status of the counterparty' attribute. This means that the 'date of the default status of the counterparty' attribute cannot have a future date.	tuple constraint	Checked within the data delivery	signalling
tpc0026	This validation check ensures that the 'reference reporting date' attribute is consistent with the 'date of protection value' attribute. This means that the date on which the protection value was assessed cannot be in the future.	tuple constraint	Checked within the data delivery	signalling
tpc0027	This validation check ensures that the value reported for the 'date of the default status of the counterparty' attribute is consistent with the 'default status of the counterparty' attribute. This means that where a default status is assessed at counterparty level, and where a “Non-applicable” value is reported as the date of default, debtors can only be reported as not being in a default.	tuple constraint	Checked within the data delivery	signalling

tpc0039	This validation check ensures that when 'country' of quasi-corporation is reported as foreign (not Dutch), then the value "foreign" should be reported for attribute 'legal form' of the quasi-corporation	tuple constraint	Checked within the data delivery	signalling
tpc0040	This validation check ensures that the value reported for the 'institutional sector' attribute is consistent with the 'economic activity' attribute for financial corporations. This means that institutions which have been reported as a financial corporation are reported with the economic activity corresponding to a financial institution. The codes used represent the first two digits of level 2, 3 or 4 NACE codes.	tuple constraint	Checked within the data delivery	signalling
tpc0041	This validation check ensures that the value reported for the 'reporting reference date' attribute is consistent with the 'date of enterprise size' attribute. This means that the date of enterprise size cannot be in the future	tuple constraint	Checked within the data delivery	signalling

APPENDIX C – NAMING CONVENTIONS AND ABBREVIATIONS

#	Title	Description
1	Case	file names, XML tags, entity types and attributes are given in lower case, unless explicitly indicated otherwise.
2	Underscore (_)	Spaces, asterisks "*", brackets "(" and ") and slashes "/" and "\" in file names, XML tags, entities and attributes must always be replaced by an underscore, "_".
3	CRE	Capitals
4	..	..

#	Abbreviation	Meaning
1	CSV	Comma Separated Values
2	DDA	Data delivery agreement
3	DNB	De Nederlandsche Bank
4	GLO	[Dutch]Gegevens Leverings Overeenkomst – synonym DDA
5	LDM	Logical data model
6	LEI	Legal Entity Identifier
7	XML	Extensible Markup Language