

CRE data delivery agreement
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CRE data delivery agreement 1.3

**Owner: Statistics Division
Manager Monetary and Banking Statistics Department**

**DNB-public
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**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 <code>immovable_property_rental_contract.csv</code> is added and the file <code>delivery.csv</code> 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 |
| 1.2 | September 2021 | Harmonised the reporting of surrogate values to allow reporting of the value "Unknown" directly or choose a semantical equivalent from a reference list. Updated the reporting structures for domestic immovable property and non-land Added PD model entity types, conform RRE Added protection provider risk and default data, conform AnaCredit. Various attributes have been moved. | Arjan Bos |
| 1.2.2 | July 2022 | Five stage 2 attributes that were made mandatory in release 1.2 are now made optional again: immediate parent undertaking identifier; ultimate parent undertaking identifier; number of employees; enterprise size; date of enterprise size. This also eases the checks in the related business rules. Values for 'type of impairment' have been updated. | Arjan Bos |
| 1.3 | February 2025 | Updated version number. Removed list of validations from Appendix A and B. | Caspar Clausen |

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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.

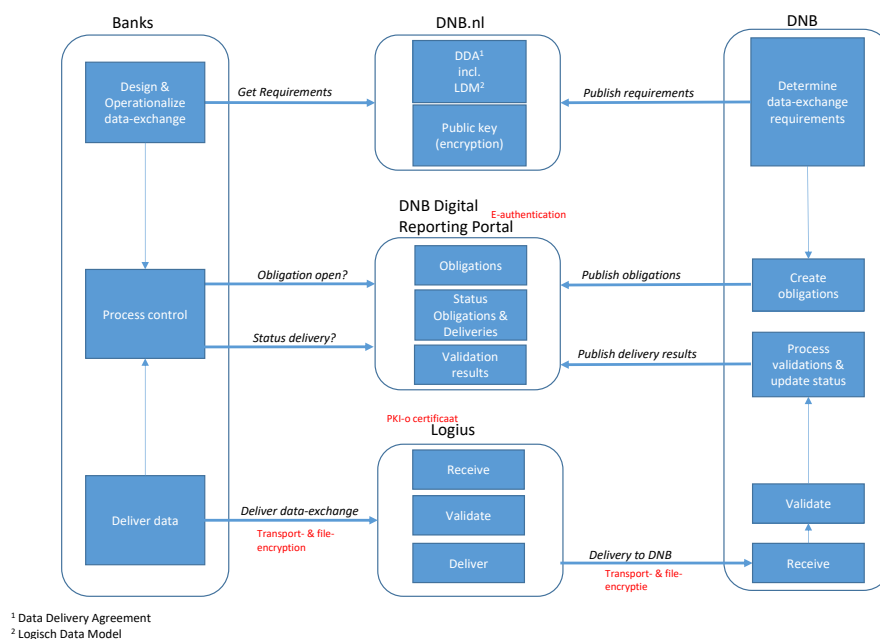


Figure 1: Design, Run and Control overview of CRE data exchange

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 modelled¹ 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 explicitly repeated in Appendix A and B, e.g. specialisation model constraints and domain constraints for attributes with exclusions.

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 their obligation.

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 checks³ 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. Please refer to the logius documentation on how to properly use encryption.
- 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_secured_instrument_data.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.

| | |
|--|---|
| other_loans_instrument.csv | X |
| overdraft_instrument.csv | X |
| pd_model_contract.csv | X |
| pd_model_debtor.csv | X |
| pd_model_instrument.csv | X |
| protection_provider.csv | X |
| protection_provider_default_data.csv | X |
| protection_provider_risk_data.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 website⁵.

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 website⁶.

2.4 <entity>.csv file interface

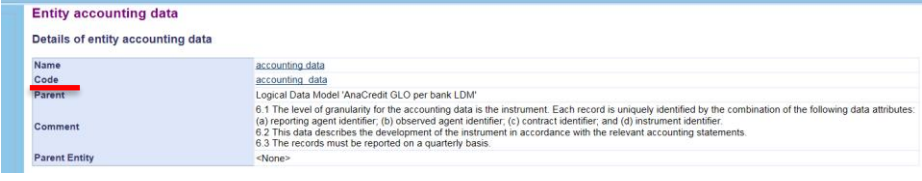
This section describes the metadata aspects of .csv files. Reporting agents must deliver one file for each of the entities described below. In addition, an exhaustive list of attributes is provided that is to be delivered for each file. As a rule, one .csv file must be submitted for each entity type 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, or when the existence of a tuple cannot be derived from other information, like in the case of an associative entity type.

⁵ <https://www.dnb.nl/en/login/dlr/statistical-reporting/>

⁶ <https://www.dnb.nl/en/login/dlr/statistical-reporting/banks/commercial-real-estate-cre/>

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: | <p>The entity code in the logical data model is used as the file name. In this code, spaces are replaced by underscores (_)</p>  |
| 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: | <p>" (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\""</p> |
| 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: | <p>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. NNNNNNNNNNNN (no leading or trailing zeros, no decimals).</p> <ul style="list-style-type: none"> 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) <p>Negative numbers are preceded by a minus sign (-) Positive numbers are not preceded by a plus sign (+)</p> <p>The rationale for this is to prevent interpretation issues due to differences in localization settings between sending, re-transmitting and receiving systems</p> |
| File integrity check | <p>Some entities and combinations of attributes per entity require a checksum. See Section 2.7.6.</p> <p>Numeric fields must first be summarised and then hashed.</p> <p>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.</p> <p>The prescribed hash function is described in 2.3.</p> |

| | |
|-----------------------------------|--|
| Reporting “Non-applicable” | <p>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.</p> <p>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”.</p> <p>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</p> |
| Reporting Unknown values | Please see paragraph 3.3 for dealing with attributes for which the value is not yet available. |

2.4.1.1 Determining which entity types to report

The logical datamodel of CRE contains over hundred and twentyone 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_served_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 with unknown |
| 8 | cmltv_rcvrs_snc_dflt | Decimal (16,0) | 16 | euro amount (non-negative) with exclusions |
| 9 | fully_derecognised_instrument_being_served_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 with unknown |
| 4 | city_town_village | Variable multibyte (255) | 255 | medium sized string with unknown |
| 5 | postal_code | Variable multibyte (20) | 20 | postal code with exclusions |
| 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" | 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 with unknown |

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 | obsrwd_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";"obsrwd_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 | obsrwd_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";"obsrwd_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 | obsrwd_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";"obsrwd_agnt_cd";"counterparty_identifier";"entty_rl";"reporting_reference_date";"crdt_qtly_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 | obsrwd_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 | |
| 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 with unknown |

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" | 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 |

2.4.14 domestic_immovable_property.csv

| # | Header | Data type | Details |
|---|--|---------------|--|
| 1 | "reporting_agent_identifier";"prtctn_id";"reporting_reference_date";"bag_pand_identifier";"bag_object_identifier";"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 | bag_pand_identifier | Variable characters (16) | 16 | code 16 with unknown |
| 5 | bag_object_identifier | Variable characters (16) | 16 | code 16 with exclusions |
| 6 | energy_label | Variable multibyte (255) | 255 | code |

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 with unknown |
| 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 with unknown |
| 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 with unknown |
| 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";"obsrpd_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";"acprd_intrst";"past_due_instrument_indicator";"securitized_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 | obsrpd_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) with unknown |
| 12 | acprd_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 |
| 14 | securitized_instrument_indicator | Variable characters (50) | 50 | securitisation 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 with unknown |

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 with unknown |
| 5 | city_town_village | Variable multibyte (255) | 255 | medium sized string with unknown |
| 6 | postal_code | Variable multibyte (20) | 20 | postal code with exclusions |

| | | | | |
|----|-------------------------|---------------------------|------|--|
| 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) with unknown |
| 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 with unknown |
| 15 | name | Variable multibyte (1024) | 1024 | large sized string with unknown |

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) with unknown |
| 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";"inception_date_of_the_instrument";"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";"corepc_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";"regulatory_ead_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 | inception_date_of_the_instrument | Date | | date with unknown |

| | | | | |
|----|--|--------------------------|-----|---|
| 7 | typ_instrmnt | Variable multibyte (255) | 255 | code |
| 8 | typ_amrtstn | Variable multibyte (255) | 255 | code |
| 9 | crncy_dnmntn | Characters (3) | 3 | ISO 4217 Currency |
| 10 | intrst_rt_rst_frncy | Variable multibyte (255) | 255 | code |
| 11 | typ_intrst_rt | Variable multibyte (255) | 255 | code |
| 12 | dt_lgl_fnl_mtrty | Date | | date with exclusions |
| 13 | cmmtmnt_incptn | Decimal (16,0) | 16 | euro amount (non-negative) with exclusions |
| 14 | pymnt_frncy | Variable multibyte (255) | 255 | code |
| 15 | prjct_fnnc_ln | Variable multibyte (255) | 255 | code |
| 16 | provision_amount | Decimal (16,0) | 16 | euro amount (non-negative) with unknown |
| 17 | corep_class | Variable multibyte (255) | 255 | code |
| 18 | intrst_rt_at_origin | Decimal (12,0) | 12 | real number (positive or negative) with unknown |
| 19 | outstanding_nominal_amount_at_inception | Decimal (16,0) | 16 | euro amount (non-negative) with unknown |
| 20 | special_asset_management | Variable multibyte (255) | 255 | code |
| 21 | recourse | Variable multibyte (255) | 255 | code |
| 22 | loan_to_value | Decimal (12,0) | 12 | real number (non-negative) with exclusions |
| 23 | loan_to_value_at_inception | Decimal (12,0) | 12 | real number (non-negative) with exclusions |
| 24 | interest_coverage_ratio | Decimal (12,0) | 12 | real number (non-negative) with exclusions |
| 25 | interest_coverage_ratio_at_inception | Decimal (12,0) | 12 | real number (non-negative) with exclusions |
| 26 | debt_service_coverage_ratio | Decimal (12,0) | 12 | real number (non-negative) with exclusions |
| 27 | debt_service_coverage_ratio_at_inception | Decimal (12,0) | 12 | real number (non-negative) with exclusions |
| 28 | regulatory_ead_at_inception | Decimal (20,0) | 20 | real number of 20 numbers with 2 decimals with exclusions |
| 29 | interest_only_indicator | Variable characters (50) | 50 | interest-only indicator |
| 30 | 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";"obsrsvd_agnt_cd";"reporting_reference_date";"cntrct_id";"instrmnt_id";"arrs";"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 | obsrsvd_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 | arrs | Decimal (16,0) | 16 | euro amount (non-negative) with unknown |
| 7 | dt_pst_d | Date | | date with unknown |

2.4.27 instrument_protection_received_data.csv

| # | Header | Data type | Details |
|---|--|---------------|--|
| 1 | "reporting_agent_identifier";"obsrsvd_agnt_cd";"cntrct_id";"instrmnt_id";"prtctn_id";"reporting_reference_date";"prtctn_vltn_apprch_at_inception";"prtctn_allctd_vl";"thrd_prtty_prty_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 | obsrsvd_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_vltn_aprch_at_inception | Variable multibyte (255) | 255 | code |
| 8 | prtctn_allctd_vl | Decimal (16,0) | 16 | euro amount (non-negative) with unknown |
| 9 | thrd_prtty_prrty_clms | Decimal (16,0) | 16 | euro amount (non-negative) with unknown |
| 10 | orgnl_prtctn_vl | Decimal (16,0) | 16 | euro amount (non-negative) with unknown |
| 11 | dt_orgnl_prtctn_vl | Date | | date with unknown |

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 with unknown |

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) with unknown |

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 with unknown |
| 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";"obsrsvd_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 | obsrsvd_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 with unknown |
| 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 with unknown |
| 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";"obsrsvd_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 | obsrsvd_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 with unknown |
| 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";"obsrwd_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 | obsrwd_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) with unknown |

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" | 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) with exclusions |
| 6 | total_rentable_surface | Long integer | | positive integer with exclusions |
| 7 | street | Variable multibyte (255) | 255 | medium sized string with unknown |
| 8 | city_town_village | Variable multibyte (255) | 255 | medium sized string with unknown |
| 9 | postal_code | Variable multibyte (20) | 20 | postal code with exclusions |
| 10 | country | Characters (2) | 2 | ISO 3166 Country |

2.4.36 observed_agent_delivery.csv

| # | Header | Data type | Details |
|---|--|---------------|--|
| 1 | "reporting_agent_identifier";"obsrwd_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 | obsrwd_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_secured_instrument_data.csv

| # | Header | Data type | Details |
|---|---|---------------|--|
| 1 | "reporting_agent_identifier";"obsrwd_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 pd_model_contract.csv

| # | Header | Data type | Details |
|---|--|---------------|--|
| 1 | "reporting_agent_identifier";"obsrvd_agnt_cd";"reporting_reference_date";"cntrct_id";"pd_model_id";"initial_pd";"regulatory_pd";"regulatory_el";"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 | pd_model_id | Variable multibyte (255) | 255 | medium sized string with unknown |
| 6 | initial_pd | Decimal (7,0) | 7 | real number from 0 to 1 with 6 decimals with exclusions |
| 7 | regulatory_pd | Decimal (7,0) | 7 | real number from 0 to 1 with 6 decimals with exclusions |
| 8 | regulatory_el | Decimal (20,0) | 20 | real number of 20 numbers with 2 decimals with exclusions |
| 9 | regulatory_rwa | Decimal (20,0) | 20 | real number of 20 numbers with 2 decimals with exclusions |

2.4.41 pd_model_debtor.csv

| # | Header | Data type | Details |
|---|--------|-----------|---------|
|---|--------|-----------|---------|

| | | | |
|---|--|---------------|--|
| 1 | "reporting_agent_identifier";"entty_rl";"counterparty_i dentier";"reporting_reference_date";"pd_model_id";" initial_pd";"regulatory_pd";"regulatory_el";"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 | pd_model_id | Variable multibyte (255) | 255 | medium sized string with unknown |
| 6 | initial_pd | Decimal (7,0) | 7 | real number from 0 to 1 with 6 decimals with exclusions |
| 7 | regulatory_pd | Decimal (7,0) | 7 | real number from 0 to 1 with 6 decimals with exclusions |
| 8 | regulatory_el | Decimal (20,0) | 20 | real number of 20 numbers with 2 decimals with exclusions |
| 9 | regulatory_rwa | Decimal (20,0) | 20 | real number of 20 numbers with 2 decimals with exclusions |

2.4.42 pd_model_instrument.csv

| # | Header | Data type | Details |
|---|--|---------------|--|
| 1 | "reporting_agent_identifier";"obsrvd_agnt_cd";"reporti ng_reference_date";"cntrct_id";"instrmnt_id";"pd_mod el_id";"initial_pd";"regulatory_pd";"regulatory_el";"reg ulatory_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 | pd_model_id | Variable multibyte (255) | 255 | medium sized string with unknown |
| 7 | initial_pd | Decimal (7,0) | 7 | real number from 0 to 1 with 6 decimals with exclusions |
| 8 | regulatory_pd | Decimal (7,0) | 7 | real number from 0 to 1 with 6 decimals with exclusions |
| 9 | regulatory_el | Decimal (20,0) | 20 | real number of 20 numbers with 2 decimals with exclusions |
| 10 | regulatory_rwa | Decimal (20,0) | 20 | real number of 20 numbers with 2 decimals with exclusions |

2.4.43 protection_provider.csv

| # | Header | Data type | Details |
|---|--|---------------|--|
| 1 | "reporting_agent_identifier";"counterparty_identifier";" reporting_reference_date";"immediate_parent_undert aking_identifier";"ultimate_parent_undertaking_identif ier" | 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 |

2.4.44 protection_provider_default_data.csv

| # | Header | Data type | Details |
|---|---|---------------|--|
| 1 | "reporting_agent_identifier";"obsrvd_agnt_cd";"count erparty_identifier";"reporting_reference_date";"crdt_q lty_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 | reporting_reference_date | Date | | reporting reference date |
| 5 | crdt_qlty_dflt_stts | Variable multibyte (255) | 255 | code |
| 6 | dt_dflt_stts | Date | | date with exclusions |

2.4.45 protection_provider_risk_data.csv

| # | Header | Data type | Details |
|---|---|---------------|--|
| 1 | "reporting_agent_identifier";"obsrvd_agnt_cd";"counterparty_identifier";"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 | reporting_reference_date | Date | | reporting reference date |
| 5 | pd | Decimal (7,0) | 7 | real number from 0 to 1 with 6 decimals with unknown |

2.4.46 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 |

2.4.47 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 with unknown |
| 9 | expected_liquidation_costs | Decimal (16,0) | 16 | euro amount (non-negative) with unknown |
| 10 | immovable_property_indicator | Variable characters (50) | 50 | immovable property indicator |

2.4.48 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 with unknown |
| 5 | postal_code | Variable multibyte (20) | 20 | postal code with exclusions |
| 6 | country | Characters (2) | 2 | ISO 3166 Country |
| 7 | balance_sheet_total | Decimal (16,0) | 16 | euro amount (non-negative) with unknown |
| 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 with unknown |

2.4.49 recognised_instrument.csv

| # | Header | Data type | Details |
|---|--|---------------|--|
| 1 | "reporting_agent_identifier";"obsrvt_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 | obsrvt_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) with unknown |

2.4.50 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 with unknown |
| 5 | rental_income | Decimal (16,0) | 16 | euro amount (non-negative) with unknown |
| 6 | rental_contract_type | Variable characters (50) | 50 | rental contract type |

2.4.51 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 |

2.4.52 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 |

2.4.53 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. |

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 asynchronously 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 obligation⁷

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 businesses 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 CRE 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** delivery¹⁰. They might result in a new obligation for a resubmission.

2.7.5 Other signalling rules¹¹ 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.

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 incorrect¹² (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.

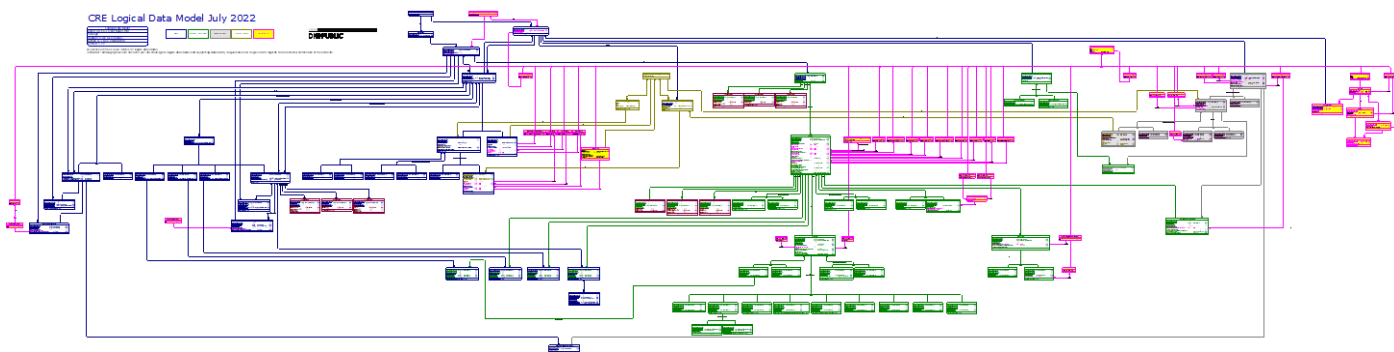
3.1 Scope of the delivery

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/en/login/dlr/statistical-reporting/banks/commercial-real-estate-cre/>



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 name denoting the possibility of a “Non-applicable” value. This name ends with “with non-applicable”, when only “Non-applicable” is allowed as a null-explanatory value, or “with exclusions”, when both “Non-applicable” and “Unknown” are allowed as null-explanatory values.

In the second type of situations, there are subtypes within the LDM that take care of the “Non-applicable” situations. For example, the attribute ‘arrear 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 | <i>The applicable value for the reporting agent</i> |
| counterparty_identifier | “Non-applicable” |
| reporting_reference_date | <i>The applicable value for the reporting reference date</i> |
| 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 Dealing with unknown attribute values in the logical data model

In collecting the data to be reported, there will invariably be situations where an attribute value requested by DNB cannot be delivered at that point in time. DNB expects banks to take measures to resolve this as soon as possible. To fulfil the reporting obligation, where the actual value is not yet available, DNB expects banks to report that the value is as yet unknown.

As of version 1.2, the logical data model includes two distinct ways surrogate values are to be reported. These two are similar to the reporting of “Non-applicable” as described in the previous paragraph.

The first is indicated in the domain of the attribute. If “Unknown” is acceptable, then this domain is extended with the possibility to report the value “Unknown”. The domain can be recognised because it ends in “with unknown”, when only “Unknown” is allowed as a surrogate value, or “with exclusions”, when both “Non-applicable” and “Unknown” are allowed.

The second manner of reporting unknown values is to choose the value depicting “Unknown” from the relevant reference list. DNB has added a bespoke unknown value to many of the reference lists, which you must use if you do not yet know correct value. This option applies to attributes where the value is based on a reference list.

3.4.1 Impact on attributes

Banks can report “Unknown” for almost all dates and amounts, and even for text values like name and street, but not for identifiers. Exception on the identifiers are those identifiers that are reported as values, not as primary key (legal entity identifier, national identifier, model identifier). Here the value “Unknown” is explicitly allowed.

3.4.2 Impact on reference lists

All reference lists that do not discriminate into subtypes now have an extra value that indicates that the actual value is yet unknown. When the reference list does determine subtyping, like type of instrument, there is no unknown value. The subtyping structure in the logical data model breaks when an incorrect value is reported.

3.4.3 Impact on primary keys

There is one entity type in the logical data model where it is allowed to have the value "Unknown" in the primary key. In the entity type address, you can report "Unknown" for street, city / town / village, postal code. These attributes are part of the primary key, so there can be only one record with an unknown street, unknown city / town / village and unknown postal code. Please be aware of this.

3.4.4 Impact on business rules

With regards to signalling business rules, reporting "Unknown" in the attribute will trigger the business rule to fail. As an example, when a rule checks that the settlement date is not before the inception date, reporting "Unknown" for either date will make this rule fail. A blocking business rule with this type of check will not fail, because doing so would negate the usefulness of reporting "Unknown" as a surrogate value.

3.5 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_served_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 |

| .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 |

| .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_pand_identifier | domestic immovable property | bag pand identifier |
| domestic_immovable_property.csv | bag_object_identifier | domestic immovable property | bag object identifier |
| domestic_immovable_property.csv | energy_label | domestic immovable property | energy label |

| .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 |
| financial_data.csv | securitized_instrument_indicator | financial data | securitized 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 | inception_date_of_the_instrument | instrument | inception date of the instrument |
| instrument.csv | typ_instrmnt | instrument | type of instrument |
| instrument.csv | typ_amrtstn | instrument | amortisation type |
| instrument.csv | crncy_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 | regulatory_ead_at_inception | instrument | regulatory EAD 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 | arrear 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_vltn_apprch_at_inception | instrument-protection received data | protection valuation approach at inception |
| instrument_protection_received_data.csv | prtctn_allctd_vl | instrument-protection received data | protection allocated value |
| instrument_protection_received_data.csv | thrd_prtty_prty_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_rfnc_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 |

| .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_secured_instrument_data.csv | reporting_agent_identifier | originator-secured instrument data | reporting agent identifier |
| originator_secured_instrument_data.csv | obsrvd_agnt_cd | originator-secured instrument data | observed agent identifier |
| originator_secured_instrument_data.csv | counterparty_identifier | originator-secured instrument data | counterparty identifier |
| originator_secured_instrument_data.csv | entty_rl | originator-secured instrument data | counterparty role |
| originator_secured_instrument_data.csv | cntrct_id | originator-secured instrument data | contract identifier |
| originator_secured_instrument_data.csv | instrmnt_id | originator-secured instrument data | instrument identifier |
| originator_secured_instrument_data.csv | reporting_reference_date | originator-secured 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 |
|-----------------------|----------------------------|-----------------------------------|---------------------------------|
| pd_model_contract.csv | reporting_agent_identifier | PD model contract | reporting agent identifier |
| pd_model_contract.csv | obsrvd_agnt_cd | PD model contract | observed agent identifier |
| pd_model_contract.csv | reporting_reference_date | PD model contract | reporting reference date |
| pd_model_contract.csv | cntrct_id | PD model contract | contract identifier |
| pd_model_contract.csv | pd_model_id | PD model contract | PD model identifier |
| pd_model_contract.csv | initial_pd | PD model contract | Initial PD |
| pd_model_contract.csv | regulatory_pd | PD model contract | Regulatory PD |
| pd_model_contract.csv | regulatory_el | PD model contract | Regulatory EL |
| pd_model_contract.csv | regulatory_rwa | PD model contract | Regulatory RWA |

| .csv filename | .csv column name | Entity type in logical data model | Attribute in logical data model |
|---------------------|----------------------------|-----------------------------------|---------------------------------|
| pd_model_debtor.csv | reporting_agent_identifier | PD model debtor | reporting agent identifier |
| pd_model_debtor.csv | entty_rl | PD model debtor | counterparty role |
| pd_model_debtor.csv | counterparty_identifier | PD model debtor | counterparty identifier |
| pd_model_debtor.csv | reporting_reference_date | PD model debtor | reporting reference date |
| pd_model_debtor.csv | pd_model_id | PD model debtor | PD model identifier |
| pd_model_debtor.csv | initial_pd | PD model debtor | Initial PD |
| pd_model_debtor.csv | regulatory_pd | PD model debtor | Regulatory PD |
| pd_model_debtor.csv | regulatory_el | PD model debtor | Regulatory EL |
| pd_model_debtor.csv | regulatory_rwa | PD model debtor | Regulatory RWA |

| .csv filename | .csv column name | Entity type in logical data model | Attribute in logical data model |
|-------------------------|----------------------------|-----------------------------------|---------------------------------|
| pd_model_instrument.csv | reporting_agent_identifier | PD model instrument | reporting agent identifier |
| pd_model_instrument.csv | obsrvd_agnt_cd | PD model instrument | observed agent identifier |
| pd_model_instrument.csv | reporting_reference_date | PD model instrument | reporting reference date |
| pd_model_instrument.csv | cntrct_id | PD model instrument | contract identifier |
| pd_model_instrument.csv | instrmnt_id | PD model instrument | instrument identifier |
| pd_model_instrument.csv | pd_model_id | PD model instrument | PD model identifier |
| pd_model_instrument.csv | initial_pd | PD model instrument | Initial PD |
| pd_model_instrument.csv | regulatory_pd | PD model instrument | Regulatory PD |
| pd_model_instrument.csv | regulatory_el | PD model instrument | Regulatory EL |
| pd_model_instrument.csv | regulatory_rwa | PD model instrument | Regulatory RWA |

| .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_default_data.csv | reporting_agent_identifier | protection provider default data | reporting agent identifier |
| protection_provider_default_data.csv | obsrvd_agnt_cd | protection provider default data | observed agent identifier |
| protection_provider_default_data.csv | counterparty_identifier | protection provider default data | counterparty identifier |
| protection_provider_default_data.csv | reporting_reference_date | protection provider default data | reporting reference date |
| protection_provider_default_data.csv | crdt_qlty_dflt_stts | protection provider default data | default status of the counterparty |
| protection_provider_default_data.csv | dt_dflt_stts | protection provider 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 |
|-----------------------------------|----------------------------|-----------------------------------|---------------------------------|
| protection_provider_risk_data.csv | reporting_agent_identifier | protection provider risk data | reporting agent identifier |
| protection_provider_risk_data.csv | obsrvd_agnt_cd | protection provider risk data | observed agent identifier |
| protection_provider_risk_data.csv | counterparty_identifier | protection provider risk data | counterparty identifier |
| protection_provider_risk_data.csv | reporting_reference_date | protection provider risk data | reporting reference date |
| protection_provider_risk_data.csv | pd | protection provider risk data | probability of default |

| .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 |

3.6 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 legal entity
- entity type delivery
- 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 not subject to securitisation
- instrument past due
- instrument subject to securitisation
- instrument-protection received data
- interest-only instrument
- joint liability
- legal entity
- non-fixed interest instrument
- non-immovable property
- non-interest-only instrument
- non-protection providing counterparty
- not immediate parent undertaking legal entity
- not ultimate parent undertaking legal entity
- observed agent delivery
- originator
- originator-securitized instrument data
- other loans instrument
- overdraft instrument
- protection provider
- protection provider default data
- protection provider risk data
- protection provider-protection received
- protection received
- recognised instrument
- 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.

3.7 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 |

3.8 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:

CRE Business Terms vn.n.n .xlsx. This file is available from the CRE webpage on dnb.nl.

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/en/login/dlr/statistical-reporting/banks/commercial-real-estate-cre/>

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 of the counterparty
- default status of the instrument
- delivery control type
- drawn instrument indicator
- economic activity
- energy label
- entity type
- enterprise size
- exit status
- fully derecognised instrument being serviced indicator
- 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
- national identifier type
- 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 Roza | 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

A list of all blocking validation rules for CRE data deliveries is included in Data validation rules in the “CRE Data validation” file that is distributed with this DDA and the LDM files.

You can filter the spreadsheet by severity class “blocking constraints”. Those selected validations are on top of 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 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.

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

A list of all signalling validation rules for CRE data deliveries is included in the Data validation rules in the “CRE Data validation rules” file that is distributed with this DDA and the LDM files.

You can filter the spreadsheet by severity class “signalling constraints”. The rules listed in this file 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 needs 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 with other datasets. More information on these kind of rules will follow as soon as possible.

These signalling and plausibility rules are taken 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.

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 |