



EeDaPP

Energy efficiency
Data Protocol
and Portal

Technical report
on existing template and key green data
collected



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1. Introduction

This document aims to provide an analysis of existing templates and key green data being collected by market participants. Currently, there are few standardised templates that collect mortgage data in a detailed way. The most commonly used templates in Europe as of 2019 are the European Central Bank (ECB) Residential Mortgage-Backed Securities (RMBS) and potentially the Commercial Mortgage-Backed Securities (CMBS) templates. With the regulatory changes as part of the new Securitisation Regulation (EU) 2017/2402 of 12 December 2017, it is expected that ECB's templates will be replaced by the ones developed by the European Securities and Markets Authority (ESMA). Currently the ESMA templates are being finalised by the regulators and will likely enter into force over the course of 2019. The ESMA templates include energy efficiency related fields.

The Harmonised Transparency Template (HTT) is a market-led, global standardised, Excel-based template that issuers who have been granted the Covered Bond Label¹ use to disclose information on their covered bond programs.

This Report will further target deeper market research and elaborate on current availability of energy efficiency data in the market. It will analyse results collected during the consortium's market outreach and evaluate relevant data that is available for entities granting mortgage loans, which are among the 45 Pilot Scheme Lending Institutions that are actively engaged in the Energy Efficient Mortgages Initiative.

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¹ www.coveredbondlabel.com

2. ECB Templates

The ECB Asset-Backed Securities (ABS) loan-level initiative establishes specific loan-by-loan information requirements for ABS accepted as collateral in Eurosystem credit operations. It increases transparency and makes available more timely information on the underlying loans and their performance to market participants in a standard format. In the past, assessments of ABS have been hampered by the lack of standardised, timely, and accurate information on single loan exposures. The Eurosystem believes that the data requirements will help both investors and third-party assessment providers with their due diligence. Ultimately, greater transparency will help to restore confidence in the securitisation market.

The Eurosystem investigated the usefulness of ABS loan-by-loan information for market participants through a public consultation and received overwhelming support for the initiative. The main objectives are: 1) improvement of transparency in ABS markets by requiring loan-by-loan information to be available and accessible to market participants on an ongoing basis, 2) facilitation of the ABS risk assessment for collateral usage by Eurosystem counterparties in monetary policy operations. Both objectives are considered necessary to revive the ABS markets.

The Eurosystem takes into account loan-level data to determine whether ABSs are eligible as collateral in its credit operations. Through its collateral framework, the Eurosystem can help to improve market functioning and the transparency of the securitisation structures.

Currently, there are two templates for reporting mortgages tied to real estate in Europe: Residential Mortgage Backed Securities (RMBS) and Commercial Mortgage Backed Securities (CMBS). This chapter will further focus on RMBS as this asset class dominates, in terms of volume, the entire ABS industry in Europe.

The RMBS template comprises 55 mandatory fields and 102 optional fields. The fields are categorized into following sections:

1. Identifiers (Loan ID, Borrower ID etc.)
2. Borrower Information (Borrower Type, Primary Income etc.)
3. Loan Characteristics (Loan Purpose, Repayment Method etc.)
4. Interest Rate (Interest rate Type, Current Interest Rate Margin etc.)
5. Property and Additional Collateral (Property Type, Original Loan to Value etc.)
6. Performance Information (Arrears Balance, Cumulative Recoveries etc.)

As of the last template version (28) from June 2013, there is no field designed to capture energy efficiency in the ECB's RMBS template. Certain fields (e.g, AR133 – Construction Year) may provide some information that may serve as input for potential energy efficiency estimations, yet the challenge of optional vs. mandatory reporting remains. Of the 55 fields marked as mandatory and thus expected to be populated, the fact that most of those fields still allow “No Data” values bring further data completeness issues.

Despite aforementioned constraints faced by the Data Owners and Providers when potentially trying to report energy efficiency values, the market has witnessed origination of several green transactions starting from 2016:

1. Green STORM 2016 B.V.
2. Green STORM 2017 B.V.
3. Green STORM 2018 B.V.

All 3 transactions were originated in the Netherlands and comply with the ECB's RMBS template version 28. Even though no energy efficiency data is captured under any field within that template, the deal is deemed green as the overall loan pool fulfils certain energy efficiency requirements stated by the originator, Obvion N.V..

3. ESMA Templates

A new Securitisation Regulation was published in the Official Journal of the European Union on 12 December 2017. The new Securitisation Regulation (EU) 2017/2402 is a cornerstone of the EU's efforts to establish a capital markets union by creating a single market for investment services and activities and to ensure a high degree of harmonisation for investors in financial instruments.

The Securitisation Regulation (EU) 2017/2402 sets out a general framework for all securitisations and creates a specific framework for simple, transparent and standardised (STS) securitisations.

As part of this new regulation, ESMA has been mandated to develop, among others, new reporting templates to collect information on the underlying exposures and standardised investor reports to capture all the materially relevant information on the credit quality and performance of the underlying exposures, as well as information on triggers and risk retention. In addition, securitisations seeking STS compliance must fulfil additional criteria and ESMA must be notified of their fulfilment of these criteria on the basis of notification templates developed by ESMA for non-ABCP, Asset-Backed Commercial Paper (ABCP) transactions and ABCP programs.

More recently, on 31 January 2019, ESMA published an Opinion on amendments to its draft technical standards on disclosure requirements under the Securitisation Regulation, which includes 15 reporting templates. These are available using a format that may, in ESMA's view, assist stakeholders in their analysis of ESMA's draft technical standards. To further facilitate stakeholders' analyses, the templates include references to the ECB ABS loan-level data template fields, where available. These references have been produced on a best-effort basis, and do not form part of ESMA's draft technical standards. ESMA therefore makes no claim or commitment with regard to the final accuracy of such mapping between the draft templates and the ECB's templates.

As of February 2019, the reporting templates for Residential Real Estate (RRE), commonly known from the ECB's template as RMBS, are not yet finalized and approved by the European Commission and European Parliament.

The most recent ESMA template on RRE Underlying Exposures (Annex 2) contains 84 fields related to Underlying Exposures and 23 fields providing Collateral-Level Information. After examining the template in greater detail, one can find 2 fields dedicated specifically to energy efficiency information:

1. Energy Performance Certificate Value
2. Energy Performance Certificate Provider Name

TEMPLATE CATEGORY	SECTION	FIELD CODE	FIELD NAME	CONTENT TO REPORT	ND1-ND4 allowed?	ND5 allowed?	FORMAT	For info: existing ECB or EBA NPL template field code
ANNEX 2: RRE	Collateral information section	RREC10	Energy Performance Certificate value	The energy performance certificate value of the collateral at the time of origination A (EPCA) B (EPCB) C (EPCC) D (EPCD) E (EPCE) F (EPCF) G (EPCG) Other (OTHR)	YES	YES	(LIST)	
ANNEX 2: RRE	Collateral information section	RREC11	Energy Performance Certificate Provider Name	Enter in the legal name of the energy performance certificate provider. Where a Legal Entity Identifier (LEI) is available in the Global Legal Entity Foundation (GLEIF) database, the name entered shall match the name associated with the LEI.	YES	YES	(ALPHANUM-100)	

The first field in the ESMA RRE template, under the specific code of RREC10 provides a list of choices for the reporting entities to select from:

- A (EPCA)
- B (EPCB)
- C (EPCC)
- D (EPCD)
- E (EPCE)
- F (EPCF)
- G (EPCG)
- Other (OTHR)

The Energy Performance Certificate Provider Name (RREC11) accepts a free text. The entry should comply with the legal name of the energy performance certificate provider. Where a Legal Entity Identifier (LEI) is available in the Global Legal Entity Foundation (GLEIF) database, the name entered shall match the name associated with the LEI.

As of February 2019, both fields allow the use of “No Data” options (ND1 – ND5). These ND options provide an explanation for the unavailability of the information. This makes the potential analysis challenging.

The following table displays the “No Data” options and their meaning.

No Data option	Explanation
ND1	Data not collected as not required by the lending or underwriting criteria
ND2	Data collected on underlying exposure application but not loaded into the originator’s reporting system
ND3	Data collected on underlying exposure application but loaded onto a separate system from the originator’s reporting system
ND4	Data collected but will only be available from YYYY-MM-DD (YYYY-MM-DD shall be completed)
ND5	Not applicable

4. Harmonised Transparency Template (HTT)

Introduction

The Covered Bond Label is based on a market initiative which started in 2012 and was developed by the European issuer community working in close cooperation with investors, regulators and major stakeholders. Its key goals are the establishment of a clear perimeter for the covered bond asset class, an increased transparency and improved accessibility of the available information, thus enhancing liquidity and attractiveness in covered bonds and a clear positioning of this asset class in the evolving regulatory environment. This initiative has been very successful from its onset and in terms of market share the Covered Bond Label currently has been granted to 107 issuers accounting for 126 cover pools in 18 different jurisdictions, thus covering roughly 70% of the outstanding covered bonds worldwide.

The Harmonised Transparency Template (HTT) is the global, standardised, Excel-based template that issuers use to disclose information on their labelled covered bond programs. Definitions and format of the disclosed information are standardised to increase comparability and transparency between issuers and between jurisdictions. Standardisation facilitates investors' due diligence, enhancing overall transparency in the Covered Bonds market. The HTT, designed to be fully compliant with art 129(7) CRR transparency requirements, undergoes constant review, led by the Covered Bond Label & Advisory Committees, so as to be always up-to-date with regulatory and market requirements. Additional country-specific information on the covered bond programs can be found in the National Transparency Templates often included in the HTT.

Analyses for the purposes of this Report focussed on the template "CBLF - HTT - Final 2019.xlsx", which can be downloaded on the webpage of the Covered Bond². Financial institutions that have been granted the Covered Bond Label are requested to publish at least once every quarter the completed HTT on their webpages which need to be linked to their account on the Covered Bond Label webpage.

Structure of the HTT

The HTT presents both compulsory and voluntary data-tabs. The compulsory ones provide general information on the cover pool (A. HTT General), asset specific information (B1. HTT Mortgage Assets, B2. HTT Public Sector Assets, B3. HTT Shipping Assets) and a glossary (C. HTT Harmonised Glossary), which the issuers are invited to complete to the best of their knowledge. The voluntary tabs comprise information on optional ECB-ECAI data disclosure and also national transparency templates (NTT). The template is constructed around a set of blocked data entry cells for which the issuer can provide just the relevant value, and also a series of optional fields in which to provide also further information, such as a more granular description of types of residential and/or commercial loans. For this analysis,

² The latest version of the Harmonised Transparency Template (HTT) can be found at the following link:
<https://www.coveredbondlabel.com/issuers/harmonised-transparency-template/>

tab A. HTT General and tab B1. HTT Mortgage Assets have been considered, as mortgages represent nearly 90% of the assets of the labelled cover pools.

Tab "A. HTT General"

This tab contains information on the issuer, the reference date of the calculation of the key figures (cut-off date), information on the regulatory framework ("1. Basic Facts", "2. Regulatory Summary"), general financial key figures (aggregated nominal and, optionally, net present values) (3. General Cover Pool / Covered Bond Information). The nominal value of the entire cover pool, the corresponding outstanding amount and the resulting levels of over-collateralisation in different specification (legal required, committed and actual one) are shown. The cover pools are then divided according to the types of cover pool (Mortgages, Public Sector, Shipping, Substitute Assets and Other). The amortisation profile of the assets in the cover pool and the maturity of the corresponding covered bonds are presented in corresponding maturity buckets (annually for the first five years, then for five years and the remainder). Cover assets and covered bonds are listed by currency and covered bonds by interest rate (fixed coupon, floating coupon, other) both before and after eventual hedging operations. The following presentations of replacement covers, liquid assets and derivatives and swaps are not discussed here, as they are irrelevant in this context.

Tab "B1. HTT Mortgage Assets"

In this tab, mortgage-related key figures are displayed and, where possible, specific information is provided both separately on residential and commercial mortgages and also in aggregate terms. Information is aggregated following either HTT-wide or country specific bucket sizes representing the correspondent volumes, number of loans or percentage of the total. Here below the available key figures:

- 1) Information on mortgage assets (both residential, commercial and aggregate)
 - a. Nominal amount of residential and commercial assets. (in absolute values and percentage in the pool and also number of mortgage loans)
 - b. Concentration risk (% 10 largest exposures)
 - c. Geography breakdown (at national and regional level)
 - d. Interest rate breakdown (fixed or floating rate)
 - e. Repayment type breakdown (amortising capital or interest only)
 - f. Loan Seasoning (pre-set 1 year, 2 years, 3 years, 3-5 years and over 5 years)
 - g. NPLs
- 2) Specific residential or Commercial mortgages (treated separately):

- a. Loan Size information (bucket size discretion at country level). Nominal value, numbers of mortgages both in absolute and terms
- b. LTV, both indexed and unindexed in HTT-wide pre-set bucket sizes of 0-40% and then every 10% increase. Optional is to disaggregate the beyond 100% LTV loans.
- c. Breakdown by type (for residential: Owner occupied, Second home/Holiday houses, Buy-to-let/Non-owner occupied, Agricultural, Other, for commercial: Retail, Office, Hotel/Tourism, Shopping malls, Industry, Agriculture, Other commercially used, Land, Property developers / Building under construction, Other)
- d. [just for residential] Loan by Ranking

Conclusive remarks

In the current HTT in particular no further data (not even grouped) are given with regard to

- Property (construction year of the property, other collateral property data other than the type)
- Borrower (socio-demographic information, income information)
- Energy Efficiency (EPC grade, Energy consumption)

Work is in progress to integrate the corresponding aggregated data into the template in the future. On the Covered Bond Label Webpage self-certified sustainable covered bonds according to the definition here below, which was developed by the Covered Bond Label Committee, are marked with a small leaf. Currently out of over 5000 reported covered bonds this tag is present in around 13 covered bonds.

Loan-level data is not included in the existing Excel template sheets. If the issuer in question wants to publish loan-level data, it can do so in the NTT part. However, there is neither an obligation nor a specification as to which columns are to be populated and the Covered Bond industry considers the achieved level of granularity in the HTT as sufficient.

5. Market Research

ESMA Cost Benefit Analysis (CBA) on disclosure requirements

According to the ESMA Consultation Paper³ on the Draft technical standards on disclosure requirements, operational standards, and access conditions under the Securitisation Regulation published on 19 December 2017, ESMA conducted a cost benefit analysis (CBA) of the proposed templates. ESMA decided to develop a new set of templates drawing on the existing ECB or Bank of

³ The Consultation Paper on the Draft technical standards on disclosure requirements, operational standards, and access conditions under the Securitisation Regulation can be found at the following link <https://www.esma.europa.eu/press-news/consultations/consultation-disclosure-and-operational-standards>

England (BoE) templates. Even though this would require an additional cost to adjust the reporting entities' IT systems, the new templates would better reflect the needs of the various user groups outlined in the regulation, as well as the lessons learned from the implementation of the ECB ABS loan-level data templates. According to ESMA, the new fields added are relevant and necessary for investor's due diligence as well as public authorities' market monitoring and supervisory tasks. There are certainly challenges for the reporting entities as well as the investors who need to prepare and adapt their IT systems to the new reporting templates.

The draft templates that ESMA consulted upon were not exactly the same that were published as an Annex to the Opinion Paper⁴ dated 31 January 2019. There were significant differences between the ESMA templates version of December 2017 and the version of 31 January. These differences were mainly due to ESMA's decision to align and harmonise the reporting requirements under different regulations (such as e.g. MiFiD II, MiFIR, AnaCredit Regulation (EU) 2016/867).

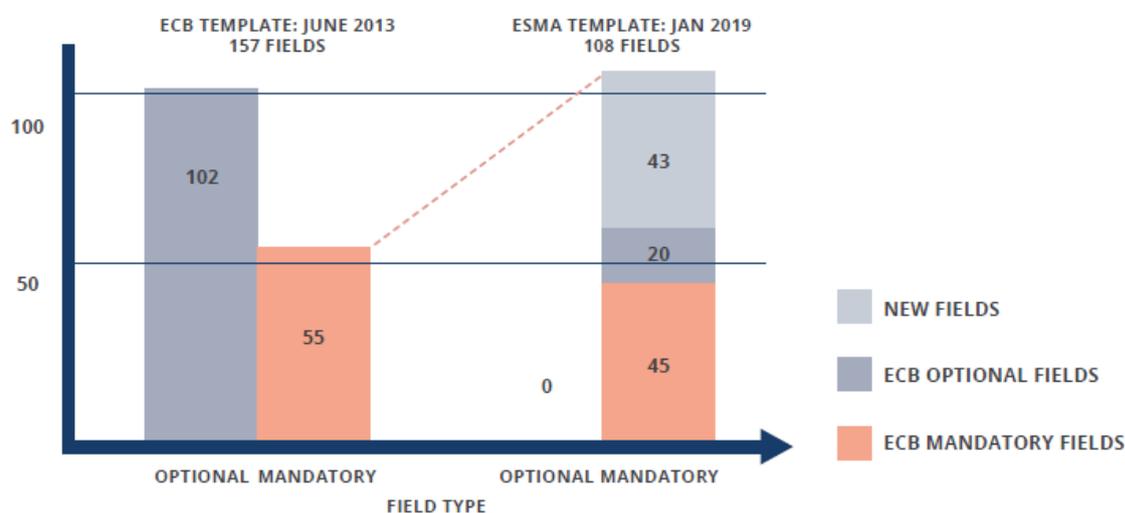
In conclusion, all the changes to the ESMA reporting templates and the delay in the adoption of the templates by the European Commission have resulted in continuous challenges for the market. The reporting entities need to make several adjustments to their IT and other systems in order to comply with the reporting requirements under the new EU Securitisation Regulation. The regulation applies from the 1 January 2019 but due to a delay in the adoption of the secondary legislation currently the market has to report under a different set of templates, the commonly called CRA III templates which are not different from the mandatory fields of the ECB ABS loan-level data templates. As soon as the secondary legislation has been finalised and the new ESMA templates are enforced the reporting entities will need to adjust their IT systems and start reporting under the new set of templates.

EDW gap analysis between the ECB and the final draft ESMA templates

European DataWarehouse (EDW) has performed a detailed field-by-field analysis of the draft ESMA underlying exposures templates (as of 31st January) and the existing ECB ABS loan-level data templates. This analysis highlights not only the technical differences between the two sets of templates but also the differences in the content to report. The aim of this analysis is to assist the reporting entities to better understand the changes between the respective templates and make the necessary adjustments to their IT and other systems, in order to ensure a smooth transition to the new reporting requirements under the EU Securitisation Regulation. In this analysis, EDW highlights the ECB data fields that have been removed and new fields that have been added by ESMA. In terms of data fields that exist in both templates, EDW indicates the data fields that have changed definition, data fields that require a different format and fields that can be directly mapped from the ECB data

⁴ The Opinion paper can be found at the following link:
<https://www.esma.europa.eu/press-news/esma-news/esma-publishes-opinion-and-qa-disclosure-technical-standards-under>

fields. The following chart shows the evolution of the number and type of fields from the ECB RMBS to the final draft ESMA templates for Residential Real Estate underlying exposures.



Source: EDW calculations (European DataWarehouse Gap Analysis v3.0, March 2019)

ECB's endorsement of the new ESMA templates

Even though the ESMA templates have not yet been finalised (currently pending adoption by the European Commission) there is a good indication that the final draft ESMA templates published on 31 January 2019 will become the new market standard replacing the existing ECB ABS loan-level data templates. In March 2019, the ECB announced that the transparency requirements of the EU Securitisation Regulation will be incorporated into the Eurosystem collateral framework⁵. The Eurosystem collateral framework will converge towards the disclosure requirements specified in Securitisation Regulation (EU) No. 2017/2402. According to the ECB, the Eurosystem eligibility criteria will change at a future date, subject to two conditions being met. First the ESMA underlying exposures templates (as per Article 7(4)) must have entered into force. Second, at least one securitisation repository must be registered by ESMA. The change to the Eurosystem transparency requirements will come into effect after a transitional period of three months from the date that these two conditions are fulfilled. A grandfathering period of three years, from the date that the new ECB transparency requirements will be effective, will apply for securitisations issued prior to 1 January 2019 that do not fall in the scope of the new regulation. The ECB's endorsement of the ESMA templates is a clear signal that the ESMA templates will become the new market standard.

⁵ For more information please use the following link:

<https://www.ecb.europa.eu/press/pr/date/2019/html/ecb.pr190322~1fdcdd3c43.en.html>

6. Summary and Conclusion

This report provides an overview of the existing templates (ECB, ESMA for securitisations and HTT) and the current reporting practices. In light of the new Securitisation Regulation and the new disclosure requirements that apply to all securitisations, the ESMA proposed templates are expected to replace the existing European Central Bank ABS loan-level data templates, which is currently the market standard. The ESMA templates for residential underlying exposures include, among others, energy performance-related data fields. The ESMA templates are being finalised by the regulators and will likely enter into force over the course of 2019.

Following several interviews with the EEM Initiative pilot scheme lending institutions, there are a number of institutions working on collecting either internally or externally energy efficiency information regarding their residential and commercial real estate stock. This process has just started for most of the institutions that are looking at improving data availability over time. The EeDaPP data project is very positively received by such institutions aiming to achieve greater standardisation of the energy efficiency information going forward. The new ESMA templates should allow this type of analysis as they are an extended version of the existing ECB data templates and there is also an Add-on template for Non-Performing Exposures (NPE) - a subset of the EBA NPL templates- that should be reported when the number of NPEs in a transaction breach a certain threshold.