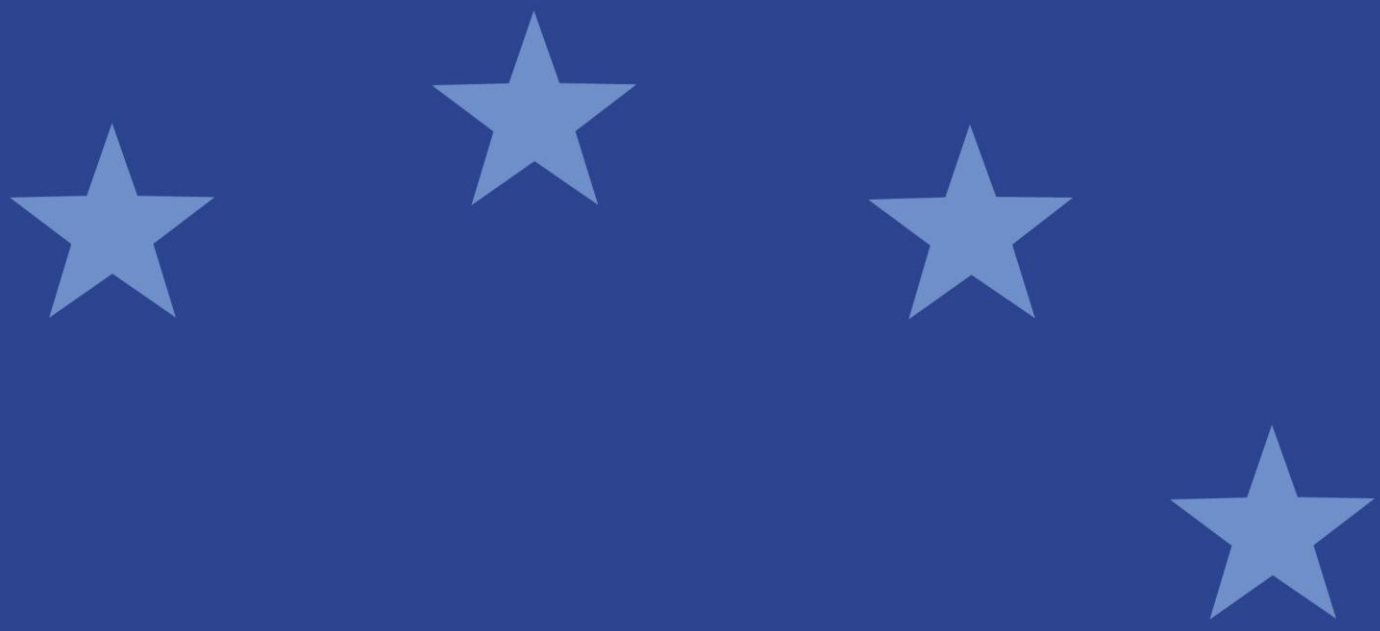
esma European Securities and Markets Authority

Consultation Paper

Guidelines on securitisation repository data completeness and consistency thresholds



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Responding to this paper

ESMA invites comments on all matters in this paper and in particular on the specific questions summarised in Annex I. Comments are most helpful if they:

1. respond to the question stated;
2. indicate the specific question to which the comment relates;
3. contain a clear rationale; and
4. describe any alternatives ESMA should consider.

ESMA will consider all comments received by **16 March 2020.**

All contributions should be submitted online at www.esma.europa.eu under the heading 'Your input - Consultations'.

Publication of responses

All contributions received will be published following the close of the consultation, unless you request otherwise. Please clearly and prominently indicate in your submission any part you do not wish to be publicly disclosed. A standard confidentiality statement in an email message will not be treated as a request for non-disclosure. A confidential response may be requested from us in accordance with ESMA's rules on access to documents. We may consult you if we receive such a request. Any decision we make not to disclose the response is reviewable by ESMA's Board of Appeal and the European Ombudsman.

Data protection

Information on data protection can be found at www.esma.europa.eu under the heading 'Data protection'.

Who should read this paper?

Securitisation repositories, entities involved in providing securitisation information to securitisation repositories, as well as trade associations, investors, and consumer groups.

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Table of Contents

1 Executive Summary

Reasons for publication

Article 4(2)(d) of the draft Commission Delegated Regulation supplementing Regulation (EU) 2017/2402 with regard to regulatory technical standards specifying securitisation repository operational standards for data collection, aggregation, comparison, access and verification of completeness and consistency requires securitisation repositories to verify that the 'No Data Options', contained within a securitisation data submission to those repositories, "*are only used where permitted and do not prevent the data submission from being sufficiently representative of the underlying exposures in the securitisation.*" To ensure consistent application of the requirement to be "sufficiently representative", the European Securities and Markets Authority (ESMA) has set out draft Guidelines addressed to securitisation repositories—which, by virtue of Article 10 of the Securitisation Regulation (Regulation (EU) 2017/2402[1]), must be registered and supervised by ESMA. ESMA seeks views from market participants on the draft Guidelines proposed in this paper.

Contents

Article 10(7) of the Securitisation Regulation requires ESMA to define regulatory technical standards (RTS) on securitisation repository procedures to "verify the completeness and consistency of the information" that they receive. On 12 November 2018, ESMA published and submitted a Final Report on securitisation repositories technical standards, which includes a set of RTS on these procedures (the 'operational standards RTS')[2]. These procedures will be applied by securitisation repositories to data on securitisations that are submitted as per the requirements set out in the Securitisation Regulation (i.e. 'public securitisations'). Following the Commission's review of ESMA's draft RTS, the completeness and consistency verification by securitisation repositories in respect of the 'No Data Options' has been finalised into an obligation to ensure that the data submission should be "sufficiently representative" of the underlying exposures in the securitisation.

In accordance with Article 16 of the ESMA Regulation (Regulation (EU) No 1095/2010[3]), ESMA considers it appropriate to address Guidelines to securitisation repositories to ensure the consistent application of this provision. These Guidelines explain how to verify whether a data submission is "sufficiently representative" by using the threshold system first discussed in ESMA's Final Report on securitisation repositories technical standards. The rationale for establishing these thresholds is extensively described in paragraphs 56-71 (pages 22-28) of that Final Report and is not reproduced in this paper. Furthermore, a cost-benefit analysis is included in Annex III of that Final Report and a cost-benefit analysis could also be developed in the Final report on these guidelines reflecting the feedback provided.

This Consultation Paper therefore sets out an initial calibration of thresholds to be applied by repositories when verifying the completeness and consistency of disclosure templates submitted to them by reporting entities in accordance with the disclosure regulatory technical standards[4] and the implementing technical standards[5].

The verification using the first threshold covers the situation where a reporting entity is unable to provide information for a limited number of underlying exposures (i.e. make use of the 'No Data Options') for several fields ('legacy assets'). The verification using the second threshold covers the situation where the reporting entity is unable to provide information for many or all underlying exposures for a few fields, for example because such information is stored in other databases and cannot be retrieved in the short run without significant disproportionate expense by reporting entities (this situation is termed 'legacy IT systems'). In each case, the reporting entity therefore uses the 'No Data Options' set out in ESMA's draft RTS on disclosure requirements as published on 31 January 2019 and adopted by the Commission on 16 October 2019.

This Consultation Paper proposes several calibrations for these two situations, using a combination of guiding principles and actual data on the percentage use of 'No Data Options' in each field across similar securitisation data submissions since 2013. The first step is to determine a cut-off point below which the percentage use of 'No Data Options' is signalling a 'legacy assets' case (i.e. some or a few loans are unable to provide data for a given field) rather than a 'legacy IT systems' case (i.e. many or all loans are unable to provide data for a given field). This cut-off point represents the 'percentage threshold' and is proposed to be set at 10%.

Next, using this 10% 'percentage threshold', this Consultation Paper presents calibrations for the acceptable number of fields in a data submission where the percentage use of 'No Data Options' is greater than 0% but below this 10% 'percentage threshold'—these are 'legacy assets' fields, and the acceptable number of fields threshold for this case is set out in column 4 in the table below. This Consultation Paper also presents calibrations for the acceptable number of fields in a data submission where the percentage use of 'No Data Options' is equal to or above this 'percentage threshold'—these are 'legacy IT systems' fields, and the acceptable number of fields threshold for this case is set out in column 5 in the table below. These calibrations are summarised in the table below.

[1] Regulation (EU) 2017/2402 of the European Parliament and of the Council of 12 December 2017 laying down a general framework for securitisation and creating a specific framework for simple, transparent and standardised securitisation, and amending Directives 2009/65/EC, 2009/138/EC and 2011/61/EU and Regulations (EC) No 1060/2009 and (EU) No 648/2012 (OJ L 347, 28.12.2017, p. 35).
[2] https://www.esma.europa.eu/sites/default/files/library/esma33-128-488_final_report_repositories_technical_standards.pdf
[3] Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC (OJ L 331, 15.12.2010, p. 84).
[4] Commission delegated regulation supplementing Regulation (EU) 2017/2402 with regard to regulatory technical standards specifying the information and the details of a securitisation to be made available by the originator, sponsor and SSPE
[5] Commission implementing regulation laying down implementing technical standards with regard to the format and standardised templates for making available the information and details of a securitisation by the originator, sponsor and SSPE

Proposed acceptable number of fields per underlying exposure category

(1) Template category	(2) Total ESMA fields	(3) Total ESMA fields where ND1-4 options are allowed	(4) Proposed acceptable number of fields threshold: *legacy assets* (i.e. greater than 0% and up to 10% use of ND options 1-4 in each field)	(5) Proposed acceptable number of fields thresholds: *legacy IT systems* (i.e. equal to or greater than 10% use of ND options 1-4 in each field)
Auto	78	41	**15**	**15**
Commercial Mtg.	227	75	**50**	**50**
Consumer	63	30	**15**	**15**
Credit cards	41	18	**10**	**10**
Leasing	78	42	**15**	**15**
Residential Mtg.	97	56	**30**	**30**
Corporate/SME	111	53	**20**	**20**
ABCP	44	39	**39**	**39**
NPE	203	203	**203**	**203**
Esoteric	76	61	**61**	**61**

As further explained in the Consultation Paper, the tolerance thresholds are complementary—a securitisation submission may contain both 'legacy assets' fields and also 'legacy IT systems' fields. This is because these two categories are mutually exclusive: whether a field is defined as 'legacy assets' or 'legacy IT systems' (or neither) is determined by the percentage use of 'No Data Options' ND1-4 across all of the active underlying exposures only in that field (i.e. whatever happens in the other fields has no impact on the classification of each individual field).

These thresholds will be gradually tightened over time as market participants are able to improve their data collection and reporting processes. However, it appears too early to stipulate how often the thresholds will be revised. It is also not proposed to define a threshold path, but instead to use a single set of numbers for the time being.

Section 2 provides an introduction to the topic and further background for the use of data completeness and consistency thresholds. Section 3 proceeds with setting out the proposed calibrations, along with the rationale for doing so. The paper also ends (section 4) with several considerations on the revisions of the thresholds in the future and the envisaged frequency following this paper. Annex I includes the list of consultation questions, an example of the application of the draft Guidelines is in Annex II and the draft Guidelines are in Annex III.

Next Steps

ESMA will consider the feedback provided as part of this Consultation Paper, with a view to publishing the final Guidelines on thresholds on its website as soon as possible.

2 Introduction

5. Article 10(2) of the Securitisation Regulation (Regulation (EU) 2017/2402) requires ESMA to define regulatory technical standards (RTS) on securitisation repository "procedures to verify the completeness and consistency of the information" that they receive. On 12 November 2018, ESMA published and submitted a set of draft technical standards on securitisation repositories, which includes a set of RTS on these procedures (the 'operational standards RTS').[6] Table 1 below summarises the verification procedures relating to data submissions contained in that draft RTS, and the corresponding action by repositories if the verification fails.

6. By way of background as to the scope of application of these verifications, they apply to securitisation data being submitted to securitisation repositories as per the requirements set out in the Securitisation Regulation (i.e. 'public securitisations'). Moreover, as set out in ESMA's consultation paper on securitisation disclosure technical standards (section 2.1.2)[7], it is understood that the disclosure requirements and, by extension, the requirement to report to securitisation repositories (for 'public' securitisations), concerns securitisations with any securities issued from 1 January 2019 onwards ('new securitisations'), as well as securitisations with all securities issued on or before 31 December 2018, that seek to obtain STS status ('legacy STS securitisations'). Securitisations with all securities issued on or before 31 December 2018, that do not seek to obtain STS status ('legacy non-STS securitisations') do not appear to be within the scope of the disclosure requirements and, therefore, would not be required to undergo such checks if they nevertheless chose to report to securitisation repositories. In other words, securitisation repositories are not expected to apply these verifications to legacy non-STS securitisations but are expected to apply them to (public) new securitisations and (public) legacy STS securitisations.

Table 1: Securitisation repository data-related completeness and consistency verifications

Verification #	Verification description	Repository action if submission fails verification
1	Verify that the submission complies with template formats	REJECT
2	Check for inconsistencies across fields in the same data submissions	REJECT
3	Check for inconsistencies across the same field over time	ISSUE WARNING
4	Check for inconsistencies in fields vs. other similar securitisations	ISSUE WARNING
5	Check that the submission data cut-off date is sufficiently recent vs. the submission date	REJECT

[6] https://www.esma.europa.eu/sites/default/files/library/esma33-128-488_final_report_repositories_technical_standards.pdf
[7] https://www.esma.europa.eu/sites/default/files/library/esma33-128-107_consultation_paper_disclosure_and_operational_standards_0.pdf

6	Check whether the 'No Data Options' are only used where permitted in the disclosures Delegated Regulation	REJECT
7	Check whether the use of the 'No Data Options' in the data submission does not prevent the data submission from being sufficiently representative of the underlying exposures in the securitisation	REJECT

7. This Consultation Paper focuses on further aspects relating to Verification 7 in Table 1 above, which only apply to the underlying exposure templates (i.e. Annexes 2-11 of the disclosures technical standards[8]). ESMA has interpreted the phrase of "sufficiently representative" from the perspective of the thresholds proposed in the Final Report on securitisation repositories technical standards[9]. The rationale for establishing these thresholds is extensively described in paragraphs 56-71 (pages 22-28) of that Final Report and is not reproduced in this paper. As set out in that report, the thresholds apply to exposures that are 'active underlying exposures' as at the submission's data cut-off date, and do not apply to 'inactive underlying exposures', as defined in the disclosures Delegated Regulation. This is because it is only the performance of 'active underlying exposures' that continue to constitute a financial risk for the parties involved in the securitisation (and, most importantly among those, for investors).

8. In addition, ESMA has applied the concept of thresholds only to the underlying exposure-related annexes in the disclosures Delegated Regulation (Annexes 2-11 therein). This is because Annexes 12 and 13 ('investor report information') do generally not allow 'No Data' values ND1-ND4 and, for the few fields where they do, they relate to underlying exposures information that is expected to be aggregated from the raw underlying exposures data on which these thresholds are based. Thus, it was not deemed worthwhile to develop specific thresholds for these annexes at the present juncture. In addition, Annexes 14 and 15 ('inside information or significant event information') in the disclosures Delegated Regulation do not permit ND1-4 entries at all and, therefore, there is no need at the present time to develop the concept of 'No Data' entry-based thresholds for these annexes.

9. To recall (and as referenced throughout this Consultation Paper), the two threshold-based checks envisaged are:

> ***Check 1:*** Calculate whether the data submission is within the tolerance thresholds for 'legacy assets': i.e. if the share of active underlying exposures containing 'No Data' values ND1-ND4 for a given field is greater than 0% and below **X%** of the active underlying exposures in that submission, then this situation must occur in **Y** fields or less. This check aims to cover for the situation where a limited number of underlying exposures are unable to provide information for several fields ('legacy assets', further discussed below in this note).

[8] See https://www.esma.europa.eu/sites/default/files/library/esma33-128-600_securitisation_disclosure_technical_standards-esma_opinion.pdf

[9] Final Report on securitisation repositories technical standards. https://www.esma.europa.eu/sites/default/files/library/esma33-128-488_final_report_repositories_technical_standards.pdf

Check 2: Calculate whether the data submission is within the tolerance thresholds for 'legacy IT systems': i.e. if the share of active underlying exposures containing 'No Data' values ND1-ND4 for a given field is above **X%** of the active underlying exposures in that submission, then this situation must occur in **Z** fields or less. This check aims to cover for the situation where many or all underlying exposures are unable to provide information for a few fields (e.g. because such information is stored in other databases and cannot be retrieved in the short run without significant disproportionate expense by reporting entities)—this situation is termed 'legacy IT systems' (further discussed below in this note).

10. In total, the two above Checks involve three thresholds: one 'percentage' threshold (which allows the repository to determine whether there is a 'legacy assets' or 'legacy IT systems' situation) and two 'acceptable number of fields' thresholds (one a 'legacy assets' situation and one for a 'legacy IT systems' situation). Annex II at the end of this Consultation Paper illustrates how this would work depending on various possible threshold numbers, based on a hypothetical loan-level data submission of 100 residential mortgage loans. Thus, if at least one of the thresholds is exceeded, the securitisation repository should reject the data submission and assign the rejection category 'Representativeness' in accordance with Article 4(6) of the Securitisation Repository Operational Technical Standards.

11. It is recalled, that the No Data Options system operates in the following way: within a specific template field, information not being available is represented by the entry, in place of actual data, of one of the 'No Data' options codes set out in Table 2 below (with the exception of code 'ND5', which is not counted for the purposes of these thresholds).

12. It is also recalled that where file size issues necessitate multiple underlying exposure file uploads that are then collated together, the combined uploads are considered to be one data submission for the purposes of the operational standards RTS and thereafter these guidelines. This is also further highlighted in ESMA's Q&A on securitisation topics (see Q3.1)[10].

Table 2: Options for field values when data is not available

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-YYYY-MM-DD	Data collected but will only be available from YYYY-MM-DD (YYYY-MM-DD shall be completed)
ND5	Not applicable

[10] https://www.esma.europa.eu/sites/default/files/library/esma33-128-563_questions_and_answers_on_securitisation.pdf

13. The next section illustrates how the proposed calibrations for the thresholds have been determined.

3 What numbers to use for the thresholds

3.1 Guiding principles to use for determining the thresholds

14. It appears beneficial to set out some guiding principles for setting the thresholds, before delving into detailed calculations. It is also envisaged that these principles be used in the future for revisions of the thresholds—indeed, the text below reflects a hypothetical situation where several securitisation repositories have been registered and the disclosure templates have been adopted by market participants for some time.

15. Appropriate thresholds will be set, based on the following guiding principles:

a) Specific to each underlying exposure template and potentially at an even greater level of detail for specific categories of securitisations within each type of underlying exposure, where there is a clear need and rationale for such a greater level of detail (e.g. in the event of a securitisation that has only one loan securitised vs. with many underlying exposures);

b) Include a consultation period (formal or informal) with market participants and the relevant public authorities involved in securitisation matters;

c) Develop in close cooperation with the EBA and EIOPA;

d) Proportionality, reflecting both the need for investor protection and the requirements for efficiently-functioning securitisation markets, taking into consideration:

i. Current and historical data completeness scores across all EU securitisation;

ii. The desired trajectory towards increased data completeness;

iii. Results of securitisation repository assessments of securitisation data submitted to them (e.g. rejections, validation rules, feedback received by reporting entities). Where no repositories are registered, take into account similar information found in other sources (e.g. repositories hosting securitisation information for central bank collateral requirements; experience with AnaCredit data);

iv. Information on specific securitisation market segments that are of relevance for setting the appropriate thresholds (e.g. widespread IT-related

developments for databases hosting residential mortgages, distributed ledger technology, etc.);

v. Costs and effort of compliance by reporting entities;

vi. Costs and effort of due diligence for investors;

vii. Overall state, development, and functioning of EU securitisation markets, and links between EU securitisation markets and other EU financial markets, instruments, activities, or practices.

Q1: Do you agree with the guiding principles used for developing the thresholds, as discussed in this section (section 3.1)?

3.2 Background on thresholds currently in use in other similar reporting systems

16. As discussed in the final report on securitisation repositories technical standards, the notion of thresholds is inspired by the European Central Bank's (ECB) arrangements, which began in 2013 and continued in 2014 for additional types of ABSs. When first introduced, the ECB's loan-level initiative applied the following thresholds:

    a. For legacy assets, a percentage threshold of 10% and a number of fields threshold of 10;

    b. For legacy IT systems, with a percentage threshold above 10% and a number of fields threshold of 5.

17. These thresholds were then tightened to 7% and 7 fields (for 'legacy assets') and to 3 fields (for 'legacy IT systems'), starting from 1 October 2016. This presumably reflects market participants' increasing familiarity with the ECB's loan-level data arrangements. It also suggests that there was an improvement over time in terms of data quality, which enabled the ECB to tighten the tolerance thresholds without adverse consequences for the majority of securitisations.

18. Simply copying the original or current ECB threshold numbers for use by ESMA in Checks 1 and 2 is one possibility. However, the draft ESMA securitisation disclosure templates are significantly different from the ECB templates (despite using them as a starting point). This reflects both new fields being added to underlying exposure types covered in the existing ECB templates (e.g. new RMBS fields) and also entirely new underlying exposure-related templates (esoteric, ABCP, and NPL). In addition, the draft ESMA disclosure templates constitute a supervised regulatory reporting requirement. In contrast, the ECB collateral eligibility requirements remain 'optional': originators can create a securitisation without seeking ECB collateral eligibility. For these reasons, it may not be desirable to simply adopt the existing ECB thresholds.

19. Despite these caveats, past experiences of securitisations' compliance with the ECB reporting requirements could still help calibrate the thresholds. This is because the ECB templates make use of the same 'No Data' options system employed in the draft ESMA disclosure templates. Thus, the percentage of loans and number-of-fields statistics used in the checks above can be computed, using data available in the securitisation repository designated by the ECB (and focussing only on the mandatory fields in the ECB templates). Based on these statistics, a first attempt at thresholds for Checks 1 and 2 can be examined below, keeping in mind that under ESMA disclosure templates new fields are also being added.

3.3 Steps of the calibration procedure

20. First, we examine the percentages of underlying exposures making use of any of the 'No Data' options 1-4 in each field of a data submission. This information is gathered for all data submissions providing information to the ECB's securitisation repository since early 2013. In other words, each underlying exposures data submission will contain information on all the loans in the securitisation pool, for each template field (e.g. primary income, borrower geographic region, loan-to-value ratio, etc.—see also Annex II). The percentage use of 'No Data' options in each field for that securitisation's loans can thus be calculated, and this can be performed for all fields in the data submission (e.g. the percentage use of 'No Data' options for field 1 in the securitisation data submission, for field 2 in the same submission, for field 3, etc.). In turn, this step can be repeated for each data submission for *all* securitisations[11] that have ever submitted data to the ECB's securitisation repository. This creates, for each template field, a range (i.e. distribution) of the percentage use of 'No Data' across all securitisations reporting data for that field.

21. Based on this range of the percentage use of 'No Data' options in each field across all securitisations, one can determine the cut-off point below which the percentage use of 'No Data' options is signalling a 'legacy assets' case (i.e. some or a few loans are unable to provide data for a given field) rather than a 'legacy IT systems' case (i.e. many or all loans are unable to provide data for a given field). This cut-off point represents the 'percentage threshold'.

22. Once the 'percentage threshold' has been chosen, the population of fields making use of 'No Data' options assembled in paragraph 20 above can be split into two categories:

    a. those fields where the percentage use of 'No Data' options is greater than 0% but below this 'percentage threshold'—these are 'legacy assets' fields; and

    b. those fields where the percentage use of 'No Data' options is equal to or above this 'percentage threshold'—these are the 'legacy IT systems' fields.

[11] The majority of securitisations submit updated data on a quarterly basis to the ECB (some deals submit monthly). This reflects the fact that, over time, loans can be redeemed, prepaid, cancelled, repurchased, substitute or defaulted (with no further recoveries expected). Therefore, an updated submission is necessary to allow the evolution of the underlying exposures to be monitored.

23. Having segmented all of the various template fields into these two groups (legacy assets and legacy IT systems fields), it is then possible to count the number of 'legacy assets' fields in each data submission for each securitisation and, similarly, to count the number of 'legacy IT systems' fields for that submission[12]. This then allows one to calculate:

    a. The range of 'the number legacy assets fields per securitisation submission'; and,

    b. the range of 'the number of legacy IT systems fields per securitisation submission'.

24. Based on these ranges, the two 'number-of-fields thresholds' can be chosen, i.e.:

    a. One threshold/cap for the acceptable number of 'legacy assets' fields in a securitisation submission; and,

    b. one threshold/cap for the acceptable number of 'legacy IT systems' fields in a securitisation.

3.4 Calibration results: the percentage threshold

25. Figure 1 below presents the relative amount of securitisation template fields of the percentage use of 'No Data' options (ND1-ND4) in each field across all of the data submissions for securitisations that pre-date the introduction of the ECB's own tolerance thresholds. In other words, data are taken from submissions prior to the introduction of tolerance thresholds by the ECB, i.e. between 1 January 2013 and 16 October 2013 (for RMBSs and SME ABSs) and between 1 January 2014 and 1 October 2014 (for Auto, Consumer, and Leasing ABSs). CMBSs and credit card ABSs are not included in the sample, due to the small number of data submissions.

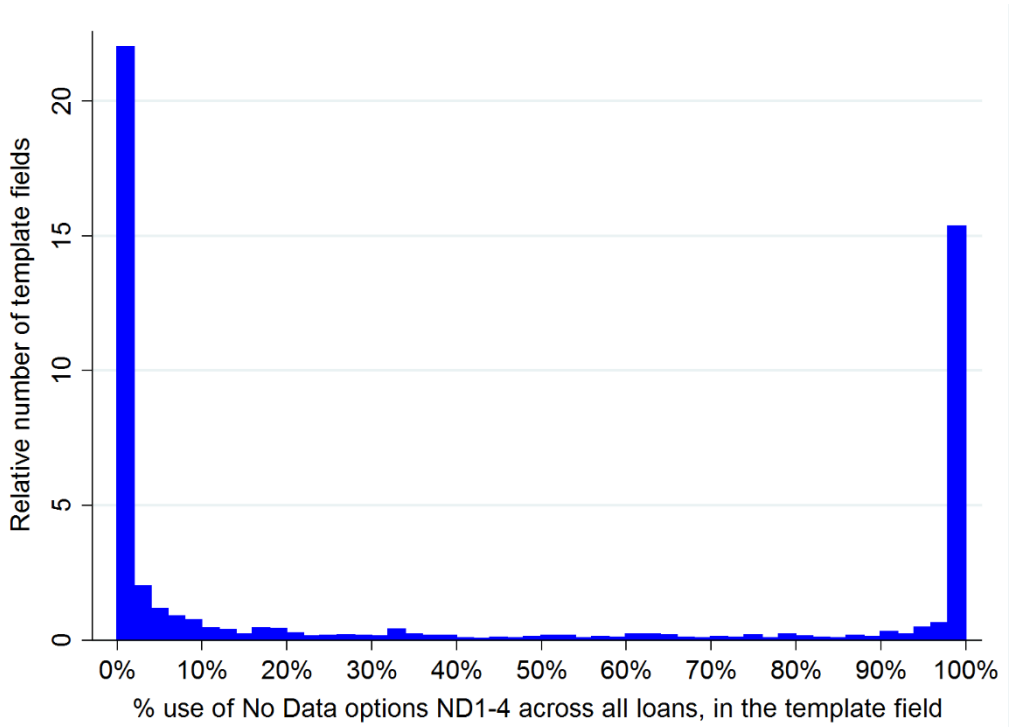
26. This choice of data window takes into account the fact that ESMA's requirements are a new reporting requirement, and thus the use of 'No Data' options in the earlier period of the ECB's reporting requirements (i.e. the period before the ECB's tolerance thresholds were introduced for each underlying exposure type) seems most relevant[13]. This ensures that there is no 'artificial' lowering of the number of affected fields per securitisation, due to the enforcement of the ECB's tolerance thresholds on the securitisation submissions.

27. Only fields that contain 'No Data' options are included in this data sample. Thus, using the example data submission set out in Annex II, the 'Origination Date' and 'Maturity

[12] See footnote 11 as well for further context, if not yet read.
[13] The tolerance thresholds were introduced on 16 October 2013 for RMBSs and SME ABS, and on 1 October 2014 for submissions of information for auto, consumer, leasing, and credit card ABSs. CMBSs were not affected by these thresholds, as there were few securitisations submitting data to the ECB. See the tab entitled '*Special provisions relating to RMBS, SME ABS, auto, leasing, consumer finance and credit cards ABS*' here: https://www.ecb.europa.eu/paym/coll/loanlevel/implementation/html/index.en.html

Date' fields would not be included in the data sample used to construct Figure 1 below, because there are no ND1-ND4 options reported for any underlying exposure in these fields. The same applies to 'Borrower Geographic Region' and 'Borrower is resident of country of loan' fields. However, the 'Borrower Employment Status' and 'Borrower Income' fields (as well as others) would be included in the data sample, because these fields allow 'No Data' options (ND1-ND4) to be entered AND do indeed have some underlying exposures reporting ND1-ND4 options (6% and 4% of underlying exposures in the securitisation, respectively).

Figure 1: Use of No Data Options (ND1-4) in each securitisation template field[14]



28. Figure 1 above illustrates the extent to which the use of 'No Data' options is binary: information for a given field is either not available for a small number of underlying exposures (i.e. 'legacy assets') or it is not available for the near totality of underlying exposures (i.e. 'legacy IT systems'). From another perspective, there are relatively few cases where a medium-size percentage (e.g. in the range of 10-90%) of loans are using 'No Data' options 1-4 in a given field. The results are consistent on each underlying asset class.

[14] *Source: European DataWarehouse, ESMA calculations. Only fields making use of 'No Data' options are included in the analysis (fields with 'perfect' data are not included). Data are taken from submissions prior to the introduction of tolerance thresholds by the ECB, i.e. between 1 January 2013 and 16 October 2013 (for RMBSs and SME ABSs) and between 1 January 2014 and 1 October 2014 (for Auto, Consumer, and Leasing ABSs). CMBSs and credit card ABSs are not included in the sample, due to the small number of data submissions.*

29. Proposal:

    a. Figure 1 above and a repeated analysis (not shown) on the same statistics for each type of underlying exposure confirms that a single percentage threshold suffices and that different thresholds are not necessary for different underlying exposure types.

    b. In light of Figure 1, and the calibration step outlined in paragraph 21 above, it is proposed that the percentage threshold be set at 10%.

Q2: Do you agree with the proposed calibration approach and proposal for the percentage threshold, as discussed in this section (section 3.4)?

3.5 Calibration results: the 'acceptable number of fields' threshold for legacy assets

30. Having set a percentage threshold for differentiating between 'legacy assets' and 'legacy IT' systems fields, the next step (as set out in paragraphs 22a, 23a and 24a above) is to calibrate a cap/threshold for the 'number of legacy assets' fields that are acceptable for a securitisation underlying exposure data submission.

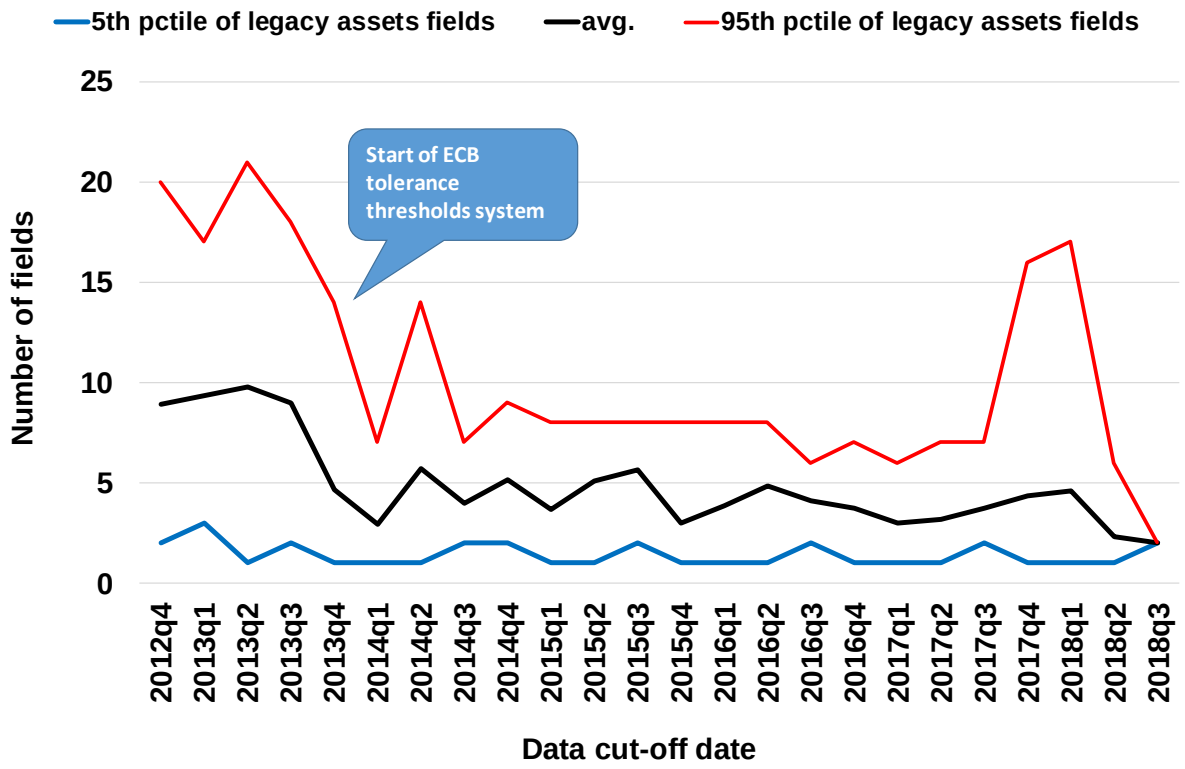
31. Figure 2 below illustrates the range in the number of 'legacy assets' fields per securitisation submission over each quarter, using the full data sample available (excluding CMBSs and credit card ABSs, due to the small number of data submissions). It is important to note that Figure 2 is only examining the population of securitisation data submission that contain at least one 'legacy assets' field. In other words, Figure 2 is not the entire sample of all securitisation data submissions that have been made—this larger population has already been filtered out. Only securitisation data submissions containing at least one 'legacy assets' field are included in Figure 2 below.

32. In addition, Figure 2 does not present the minimum and maximum number of 'legacy assets' fields across securitisation submissions in each quarter. Instead, Figure 2 presents the 5th and 95th percentiles of the number of 'legacy assets' fields across securitisation submissions in each quarter. This has been done in order to avoid some outliers providing a misleading picture of the general landscape for securitisation data submissions. The same arrangement (i.e. to focus on the 5th and 95th percentiles, rather than the minimum and maximum) is continued throughout the remainder of this note.

33. Figure 2 should thus be read in the following manner, using for example the data cut-off date in the fourth quarter of 2012 (i.e. near the start of the ECB's reporting requirements). In this fourth quarter of 2012, among those securitisation data submissions containing 'legacy assets' fields, there were at least 2 'legacy assets' fields. Next, the median number of 'legacy assets' fields per securitisation submission in the sample (i.e. all securitisations with a data cut-off date in 2012Q4) is 8 fields.

Lastly, the 95th percentile of the number of 'legacy assets' fields across all securitisation submissions containing such fields in 2012Q4 is 20.

Figure 2: Variation in the number of legacy asset fields per securitisation submission, across all disclosure template categories[15]



34. Figure 2 above shows that there is a clear evolution in the number of 'legacy assets' fields in securitisation submissions over time, although this is also due to the introduction of the ECB's own system of tolerance thresholds. This clearly speaks in favour of a flexible approach for ESMA's own thresholds, i.e. that these should also evolve over time (in a predictable and smooth manner, also in light of the guiding principles). However, two follow-up considerations must be borne in mind, based on Figure 2 above:

    a. First, given that the ESMA requirements are a new reporting requirement, it is proposed to pay closer attention to the use of 'No Data' options in the earlier period of the ECB's reporting requirements, i.e. the period before the ECB's tolerance thresholds were introduced for each underlying exposure type[16]. This

[15] Source: European DataWarehouse, ESMA calculations. Only fields making use of 'No Data' options are included in the analysis (fields with 'perfect' data are not included). Data are taken from submissions of securitisations over the period January 2013 to end-August 2018. CMBSs and credit card ABSs are not included in the sample, due to the small number of data submissions. Legacy assets fields are defined as those template fields in a loan-level data submission where the use of 'No Data' options ND1-4 across all of the loans in that data submission is greater than 0% but less than 10% (see Table 2 above for a further description of the 'No Data' options).

[16] The tolerance thresholds were introduced on 16 October 2013 for RMBSs and SME ABS, and on 1 October 2014 for submissions of information for auto, consumer, leasing, and credit card ABSs. CMBSs were not affected by these thresholds, as

ensures that there is no 'artificial' lowering of the number of affected fields per securitisation, due to the enforcement of the ECB's tolerance thresholds on the securitisation submissions.

b. The ECB disclosure templates are also tailored for different underlying exposure types, and this can lead to differences in the number of 'legacy assets' fields used per securitisation submission. It is therefore preferable to look at the statistics in the desired time window by underlying exposure category.

35. Table 3 below provides the summary statistics for all securitisations in the selected time period and also by underlying exposure type. The minimum number of 'legacy assets' fields per securitisation submission (measured across all securitisation submissions containing at least one 'legacy assets' field) is shown in column (2), as are the average and maximum number of 'legacy assets' fields in columns (3) and (4), respectively. The sample size (i.e. number of submissions in the time period) is included in column (5)—due to a small sample size, commercial mortgage-backed securitisations (CMBSs) are not analysed in more detail. Furthermore, the number of fields per template are shown in column (6), excluding collateral-related fields (of relevance to the SME and CMBS templates). Column (6) is a useful reference for making the transition (discussed below) from this ECB template-specific dataset to an ESMA template-appropriate calibration. The final column (7) in Table 3 presents the ratio of the minimum and maximum number of 'legacy assets' fields per securitisation submission, relative to the number of fields (i.e. columns (2) and (4) in Table 3, divided by column (6)).

there were few securitisations submitting data to the ECB. See the tab entitled '*Special provisions relating to RMBS, SME ABS, auto, leasing, consumer finance and credit cards ABS*' here: https://www.ecb.europa.eu/paym/coll/loanlevel/implementation/html/index.en.html

Table 3: Summary statistics for 'legacy assets' fields[17]

(1) Template category	(2) 5th pctile	(3) Mean	(4) 95th pctile	(5) # of subs	(6) # of mandatory ECB fields	(7) ND fields vs. total # of fields (MIN – MAX%)
All	**1**	**5**	**16**	**1,627**	**466**	**0.2 - 3%**
Auto	1	2	4	254	47	2 - 9%
Commercial Mtg.	N/A	N/A	N/A	0	220	N/A
Consumer	1	4	9	28	39	3 - 23%
Credit cards	N/A	N/A	N/A	0	23	N/A
Leasing	1	5	14	41	72	1 - 19%
Residential Mtg.	1	6	17	1,149	45	2 - 38%
SME	1	2	4	279	20	5 - 20%

36. Table 3 above illustrates the variety of 'legacy assets' fields per type of underlying exposure. For example, residential mortgages securitisations (RMBSs) have a range of 1-17 'legacy assets fields per submission' (or 2-38% of the total fields in that template—see column (7)), measured across the 1,149 data submissions in the time window. In contrast, automobile ABSs have a narrower range in the same time window: 1-4 'legacy assets fields per submission' (or 2-9% of the total fields in that template), as is the case for consumer and leasing ABSs. SME ABSs have a similar range (1-4 'legacy assets fields per submission'). There were only 1 CMBS and 4 credit card ABSs submitting data during this time window, thus these asset classes could not be examined further and require special ad hoc arrangements (discussed below).

37. Table 4 below presents the initial proposed calibrations for the 'number of legacy assets fields' cap/threshold for the draft ESMA disclosure templates. These initial proposed calibrations have been determined according to the following steps:

    a. Count the number of fields (including collateral fields) in the ESMA disclosure templates;

    b. Of these, count the number of fields where the 'No Data' options 1-4 are allowed to be entered;

[17] Source: European DataWarehouse, ESMA calculations. Only fields making use of 'No Data' options are included in the analysis (fields with 'perfect' data are not included). Data are taken from submissions prior to the introduction of tolerance thresholds by the ECB, i.e. between 1 January 2013 and 16 October 2013 (for RMBSs and SME ABSs) and between 1 January 2014 and 1 October 2014 (for Auto, Consumer, and Leasing ABSs). CMBSs and credit card ABSs are not included in the sample, due to the small number of data submissions. Data refer to underlying exposure template fields excluding collateral fields (of relevance for SME and CMBS templates). Legacy assets fields are defined as those template fields in a loan-level data submission where the use of 'No Data' options ND1-4 across all of the loans in that data submission is greater than 0% but less than 10% (see Table 2 above for a further description of the 'No Data' options).

c. Using the ECB data, obtain the ratio of the maximum number of 'legacy assets' fields per securitisation submission, relative to the number of fields (i.e. the maximum ratio displayed in column (7) in Table 3 above).

d. Multiply this ratio with the total number of ESMA fields where the 'No Data' options 1-4 are allowed to be entered (i.e. multiply column (3) by column (4) in Table 4 below). This yields column (5), which can be considered as pro-rata application of the percentage of 'legacy assets fields per submission' to the draft ESMA disclosure templates.

e. Column (6) in Table 4 below then takes the pro-rata multiplication in column (5) as an initial reference for the threshold proposal, but also considers the expansion of new data fields in ESMA disclosure templates in comparison to ECB templates. The initial ESMA thresholds aims at allowing a smooth transition in the current data reporting practices, but also to be prudent with the initial calibrations, with a view to tightening the thresholds over time. Commercial mortgages and credit cards are not calculated in the same manner however, as the sample size is too small via the ECB data submissions. It is proposed that the threshold for CMBSs would be set to nearly double the RMBS threshold set out in Table 4 below. This reflects the fact that there are far more fields in the draft CMBS ESMA template that can accept 'No Data' options 1-4, relative to the draft RMBS ESMA template and, in addition, that there is relatively less experience among market stakeholders of providing similar template information to the draft ESMA templates (because only a few European CMBSs have submitted data using the ECB templates). The credit card ABS threshold was calibrated using based on anecdotal evidence of credit card ABS data completeness.

Table 4: Calibrations for 'legacy assets' number-of-fields threshold—pre-existing templates[18]

(1) Template category	(2) # ESMA template fields (incl. collateral)	(3) Total ESMA fields where ND1-4 options are allowed	(4) Max. ratio of ECB fields using ND1-4 to total number of ECB fields	(5) For guidance: Multiply max ratio by total fields and round up	(6) Proposal for initial thresholds
All	**695**	**315**	**3%**	**N/A**	**N/A**
Auto	78	41	9%	4	**15**
Commercial Mtg.	227	75	N/A	N/A	**50**
Consumer	63	30	23%	7	**15**
Credit cards	41	18	N/A	N/A	**10**
Leasing	78	42	19%	9	**15**
Residential Mtg.	97	56	38%	22	**30**
Corporate/SME	111	53	20%	11	**20**

38. Table 5 below presents the initial proposed calibrations for the 'number of legacy assets fields' cap/threshold for the draft ESMA disclosure templates, focusing on those underlying exposure types where there is no data available in the ECB templates (i.e. ABCP, NPE, and Esoteric underlying exposures). For these underlying exposure types, it is proposed to simply set the initial threshold equal to the number of underlying exposure fields that can accept 'No Data' options 1-4 in each template. This is proposed because these are new templates with no prior data available for calibration. Regarding NPE securitisations, because the NPE underlying exposure template is an 'add-on' template, the thresholds would be applied cumulatively to the type of underlying exposures in the NPE securitisation. For example, in the event of an NPE securitisation exclusively of residential mortgages, the thresholds to be applied would be the RMBS threshold (applied to the fields in the residential mortgages template) plus the NPE threshold (applied to the NPE add-on template fields).

[18] Source: European DataWarehouse, ESMA calculations. Data are taken from submissions prior to the introduction of tolerance thresholds by the ECB, i.e. between 1 January 2013 and 16 October 2013 (for RMBSs and SME ABSs) and between 1 January 2014 and 1 October 2014 (for Auto, Consumer, and Leasing ABSs). CMBSs and credit card ABSs are not included in the sample, due to the small number of data submissions. ESMA template fields include all related templates (e.g. collateral and tenant information). ECB fields refer to underlying exposure template fields excluding collateral fields (of relevance for SME and CMBS templates). Legacy assets fields are defined as those template fields in a loan-level data submission where the use of 'No Data' options ND1-4 across all of the loans in that data submission is greater than 0% but less than 10% (see Table 2 above for a further description of the 'No Data' options). Identifier fields and data cut-off date fields are not included in the total displayed in column 2.

Table 5: Calibrations for 'legacy assets' number-of-fields threshold—pre-existing templates[19]

(1) Template category	(2) # ESMA template fields (incl. collateral)	(3) Total ESMA fields where ND1-4 options are allowed	(4) Max. ratio of ECB fields using ND1-4 to total number of ECB fields	(5) For guidance: Multiply max ratio by total fields and round up	(6) Proposal for initial thresholds
ABCP	44	39	N/A	N/A	**39**
NPE	203	203	N/A	N/A	**203**
Esoteric	76	61	N/A	N/A	**61**

Q3: Do you agree with the proposed calibration approach and proposal for the 'number of legacy assets fields' thresholds, as discussed in this section (section 3.5)?

3.6 Calibration results: the 'acceptable number of fields' threshold for legacy IT systems

39. The calibration procedure for the 'acceptable number of fields' threshold for legacy IT systems is similar to the previous section. As discussed in section 3.4 above, 'Legacy IT systems' fields are defined as those fields where the percentage use of 'No Data' options ND1-4 those fields is equal to or above the chosen 'percentage threshold' (i.e. equal to or above 10% under the proposal).

40. Figure 3 below illustrates the range in the number of 'legacy IT systems' fields per securitisation submission over each quarter, using the full data sample available (also excluding CMBSs and credit card ABSs, due to the small number of data submissions). It is important to note that Figure 3 is only examining the population of securitisation data submission that contain at least one 'legacy IT systems' field. In other words, Figure 3 is not the entire sample of all securitisation data submissions that have been made—this larger population has already been filtered out, and only securitisation data submissions containing at least one 'legacy IT systems' field are examined.

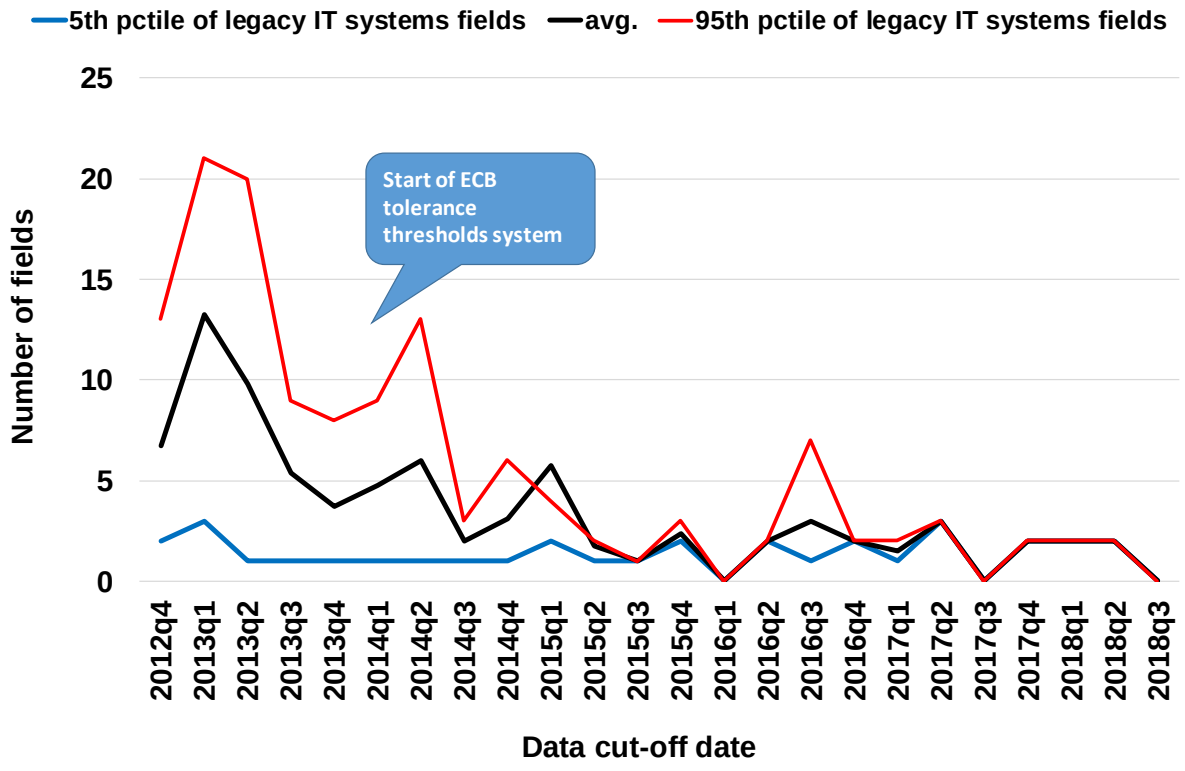
41. As described above with Figure 2, Figure 3 does not present the minimum and maximum number of 'legacy assets' fields across securitisation submissions in each quarter. Instead, Figure 3 presents the 5th and 95th percentiles of the number of 'legacy assets' fields across securitisation submissions in each quarter. This has been done in order to avoid some outliers providing a misleading picture of the general landscape

[19] ESMA template fields include all related templates (e.g. collateral and tenant information). Legacy assets fields are defined as those template fields in a loan-level data submission where the use of 'No Data' options ND1-4 across all of the loans in that data submission is greater than 0% but less than 10% (see Table 2 above for a further description of the 'No Data' options). Identifier fields and data cut-off date fields are not included in the total displayed in column 2.

for securitisation data submissions. The same arrangement (i.e. to focus on the 5th and 95th percentiles, rather than the minimum and maximum) is continued throughout the remainder of this note.

42. Figure 3 should thus be read in the following manner, using as an example the data cut-off date in the fourth quarter of 2012 (i.e. near the start of the ECB's reporting requirements). In this fourth quarter of 2012, among those securitisation data submissions containing 'legacy IT systems' fields, there were at least 2 'legacy IT systems' fields. Next, the average number of 'legacy IT systems' fields per securitisation submission in the sample (i.e. all securitisations with a data cut-off date in 2012Q4) is 7 fields. Lastly, the 95th percentile number of 'legacy IT systems' fields across all securitisation submissions containing such fields in 2012Q4 is 13.

Figure 3: Variation in the number of legacy asset fields per securitisation submission, across all disclosure template categories[20]



43. As with the previous time series (see Figure 2 above), there appears to be a declining trend in the use of 'legacy IT systems' fields across securitisation data submissions over time. At the same time, there are sudden increases, which also correspond to the introduction of reporting requirements for different securitisation underlying exposure

[20] Source: European DataWarehouse, ESMA calculations. Only fields making use of 'No Data' options are included in the analysis (fields with 'perfect' data are not included). Data are taken from submissions of securitisations over the period January 2013 to end-August 2018. CMBSs and credit card ABSs are not included in the sample, due to the small number of data submissions. Legacy IT systems fields are defined as those template fields in a loan-level data submission where the use of 'No Data' options ND1-4 across all of the loans in that data submission is greater than 0% but less than 10% (see Table 2 above for a further description of the 'No Data' options).

types over time (i.e. first RMBS, SME, and CMBS in early 2013, followed by auto, consumer. Leasing, and soon after credit card ABSs in 2014). Furthermore, the ECB also developed tolerance thresholds that were specific to 'legacy IT systems', and this also helped reduce use of such fields over time. Therefore, as in the previous section, further refinements are needed to have an appropriate data sample: (1) look at individual underlying exposure types (rather than all securitisations together) and (2) focus on the period before the ECB's tolerance thresholds were introduced for each underlying exposure type[21].

44. To this end, Table 6 below provide summary statistics for all securitisations containing at least one 'legacy IT systems' field in the selected time period and also by underlying exposure type. The format is the same as in Table 3 above (see paragraph 35 above for a description).

Table 6: Summary statistics for 'legacy IT systems' fields[22]

(1) Template category	(2) 5th pctile	(3) Mean	(4) 95th pctile	(5) # of subs	(6) # of mandatory ECB fields	(7) ND fields vs. total # of fields (MIN – MAX%)
All	**1**	**5**	**18**	**1,323**	**466**	**0.2 - 4%**
Auto	1	3	10	69	47	2 - 21%
Commercial Mtg.	N/A	N/A	N/A	0	220	N/A
Consumer	1	4	8	31	39	3 - 21%
Credit cards	N/A	N/A	N/A	0	23	N/A
Leasing	3	8	23	42	72	4 - 32%
Residential Mtg.	1	5	20	990	45	2 - 44%
SME	1	3	7	185	20	5 - 35%

45. As in the previous section, Table 6 above illustrates the variety of 'legacy IT systems' fields per type of underlying exposure. For example, residential mortgages securitisations (RMBSs) have a range of 1-20 'legacy IT systems fields per submission' (or 2-44% of the total fields in that template—see column (7)), measured across the 990 data submissions in the time window. Leasing ABSs have a similar range in their

[21] The tolerance thresholds were introduced on 16 October 2013 for RMBSs and SME ABS, and on 1 October 2014 for submissions of information for auto, consumer, leasing, and credit card ABSs. CMBSs were not affected by these thresholds, as there were few securitisations submitting data to the ECB. See the tab entitled '*Special provisions relating to RMBS, SME ABS, auto, leasing, consumer finance and credit cards ABS*' here:
https://www.ecb.europa.eu/paym/coll/loanlevel/implementation/html/index.en.html

[22] Source: European DataWarehouse, ESMA calculations. Only fields making use of 'No Data' options are included in the analysis (fields with 'perfect' data are not included). Data are taken from submissions prior to the introduction of tolerance thresholds by the ECB, i.e. between 1 January 2013 and 16 October 2013 (for RMBSs and SME ABSs) and between 1 January 2014 and 1 October 2014 (for Auto, Consumer, and Leasing ABSs). CMBSs and credit card ABSs are not included in the sample, due to the small number of data submissions. Data refer to underlying exposure template fields excluding collateral fields (of relevance for SME and CMBS templates). Legacy IT systems fields are defined as those template fields in a loan-level data submission where the use of 'No Data' options ND1-4 across all of the loans in that data submission is greater than or equal to 10% (see Table 2 above for a further description of the 'No Data' options).

respective time window (i.e. between 1 January 2014 and 1 October 2014): 1-23 'legacy IT systems fields per submission' (or 4-32% of the total fields in that template). SME, auto, and consumer ABSs have even lower ranges (up to 7, 10, and 8 'legacy IT systems fields per submission', resp.).

46. Table 7 below presents the initial proposed calibrations for the 'number of legacy IT systems fields' cap/threshold for the draft ESMA disclosure templates. The process for determining these arrangements is similar to that illustrated in Table 4 above and outlined in paragraph 37 above.

Table 7: Calibrations for 'legacy IT systems' number-of-fields threshold—pre-existing templates[23]

(1) Template category	(2) # ESMA template fields (incl. collateral)	(3) Total ESMA fields where ND1-4 options are allowed	(4) Max. ratio of ECB fields using ND1-4 to total number of ECB fields	(5) For guidance: Multiply max ratio by total fields and round up	(6) Proposal for initial thresholds
All	695	315	4%	N/A	**N/A**
Auto	78	41	21%	9	**15**
Commercial Mtg.	227	75	N/A	N/A	**50**
Consumer	63	30	21%	7	**15**
Credit cards	41	18	N/A	N/A	**10**
Leasing	78	42	32%	14	**15**
Residential Mtg.	97	56	44%	25	**30**
Corporate/SME	111	53	35%	19	**20**

47. As in the previous section, Table 8 below presents the initial proposed calibrations for the 'number of legacy IT systems fields' cap/threshold for the draft ESMA disclosure templates, focusing on those underlying exposure types where there is no data available in the ECB templates (i.e. ABCP, NPE, and Esoteric underlying exposures). For these, as explained in the previous section on 'legacy assets', it is proposed to simply set the initial threshold equal to the number of underlying exposure fields that can accept 'No Data' options 1-4 in each template.

[23] Source: European DataWarehouse, ESMA calculations. Data are taken from submissions prior to the introduction of tolerance thresholds by the ECB, i.e. between 1 January 2013 and 16 October 2013 (for RMBSs and SME ABSs) and between 1 January 2014 and 1 October 2014 (for Auto, Consumer, and Leasing ABSs). CMBSs and credit card ABSs are not included in the sample, due to the small number of data submissions. ESMA template fields include all related templates (e.g. collateral and tenant information). ECB data refer to underlying exposure template fields excluding collateral fields (of relevance for SME and CMBS templates). Legacy IT systems fields are defined as those template fields in a loan-level data submission where the use of 'No Data' options ND1-4 across all of the loans in that data submission is greater than or equal to 10% (see Table 2 above for a further description of the 'No Data' options). Identifier fields and data cut-off date fields are not included in the total displayed in column 2.

Table 8: Calibrations for 'legacy IT systems' number-of-fields threshold – new templates[24]

(1) Template category	(2) # ESMA template fields (incl. collateral)	(3) Total ESMA fields where ND1-4 options are allowed	(4) Max. ratio of ECB fields using ND1-4 to total number of ECB fields	(5) For guidance: Multiply max ratio by total fields and round up	(6) Proposal for initial thresholds
ABCP	44	39	N/A	N/A	**39**
NPE	203	203	N/A	N/A	**203**
Esoteric	76	61	N/A	N/A	**61**

Q4: Do you agree with the proposed calibration approach and proposal for the 'number of legacy IT system fields' thresholds, as discussed in this section (section 3.6)?

3.7 Comparison of calibration proposals and implications for early-stage reporting in practice

48. Table 9 below regroups the proposed calibrations for the 'number of legacy assets fields' and 'number of legacy IT systems fields' thresholds. Column (2) recalls the total number of underlying exposure fields in the draft ESMA disclosure templates, while Column (3) displays the total fields in these templates where 'No Data' options ND1-4 may be entered. Columns (4) and (5) respectively recall the proposed 'acceptable number of legacy assets fields' and 'number of legacy IT systems' fields thresholds.

[24] ESMA template fields include all related templates (e.g. collateral and tenant information). Legacy IT systems fields are defined as those template fields in a loan-level data submission where the use of 'No Data' options ND1-4 across all of the loans in that data submission is greater than or equal to 10% (see Table 2 above for a further description of the 'No Data' options). Identifier fields and data cut-off date fields are not included in the total displayed in column 2.

Table 9: Summary of proposed thresholds[25]

(1) Template category	(2) Total ESMA fields	(3) Total ESMA fields where ND1-4 options are allowed	(4) Proposed acceptable number of fields threshold: ***legacy assets*** (i.e. greater than 0% and up to 10% use of ND options in each field)	(5) Proposed acceptable number of fields threshold: ***legacy IT systems*** (i.e. greater 10% use of ND options in each field)
All	**1018**	**618**	**N/A**	**N/A**
Auto	78	41	**15**	**15**
Commercial Mtg.	227	75	**50**	**50**
Consumer	63	30	**15**	**15**
Credit cards	41	18	**10**	**10**
Leasing	78	42	**15**	**15**
Residential Mtg.	97	56	**30**	**30**
Corporate/SME	111	53	**20**	**20**
ABCP	44	39	**39**	**39**
NPE	203	203	**203**	**203**
Esoteric	76	61	**61**	**61**

49. It is important to recall that ***the tolerance thresholds are complementary***—a securitisation submission may contain both 'legacy assets' fields and also 'legacy IT systems' fields. This is because these two categories are mutually exclusive: whether a field is defined as 'legacy assets' or 'legacy IT systems' (or neither) is determined by the percentage use of 'No Data' options ND1-4 across all of the underlying exposures only in that field (i.e. whatever happens in the other fields has no impact on the classification of each individual field). This implies that, for example, Field 1 in a data submission could be completed with 'No Data' options ND1-4 for 5% of the underlying exposures in the securitisation (making it a 'legacy assets' field), Field 2 in the same submission could be completed with 'No Data' options ND1-4 for 100% of the underlying exposures in the securitisation (making it a 'legacy IT systems' field), while Field 3 in the same submission could have no 'No Data' options used at all (i.e. perfect data, which means the field is neither a 'legacy assets' field nor a 'legacy IT systems'

[25] ESMA template fields include all related templates (e.g. collateral and tenant information). Legacy assets fields are defined as those template fields in a loan-level data submission where the use of 'No Data' options ND1-4 across all of the loans in that data submission is greater than 0% but less than 10% (see Table 2 above for a further description of the 'No Data' options). Legacy IT systems fields are defined as those template fields in a loan-level data submission where the use of 'No Data' options ND1-4 across all of the loans in that data submission is greater than or equal to 10%. Identifier fields and data cut-off date fields are not included in the total displayed in column 2.

field). The data submission is rejected if at least one of the two thresholds is not respected—see Annex II for a detailed example and illustration.

50. When examining the proposed calibrations in Table 9 above therefore, a reporting entity can use 'No Data' options ND1-4 in its data submission in a manner that takes both thresholds into account. In other words, and taking as an example the auto loans underlying exposures template, the reporting entity has the possibility (where this is legitimate) to submit a data submission containing 'No Data' options ND1-4 for up to 15 'legacy assets' fields and a further 15 'legacy IT systems' fields, which adds up to a total of 30 fields receiving some form of tolerance. Since there are 41 fields in the auto loans template where 'No Data' options ND1-4 may be entered, this implies that the reporting entity must report at least 11 fields without using any 'No Data' options ND1-4 for any of the securitised underlying exposures (i.e. perfect data on all of the underlying exposures in that securitisation for 11 fields)[26]. The same considerations hold for the leasing and Corporate/SME underlying exposures templates.

51. On the other hand, it is immediately apparent in Table 9 above that adding up the tolerance thresholds for 'legacy assets' fields (column 4) and for 'legacy IT systems' fields (column 5) can result in a total number of 'tolerated' fields that is equal to or greater than the number of fields in the templates where 'No Data' options can be used (column 3). For example, for commercial mortgage underlying exposures, a proposed tolerance threshold of 50 'legacy assets' fields and a further 50 'legacy IT systems' fields is far higher than the 75 total fields in the templates where the 'No Data' options ND1-4 are allowed to be used. The same consideration holds for residential mortgages (30 + 30, vs. a total of 56 fields allowing ND1-4 options), credit card (10 + 10, vs. 18 total fields), and consumer underlying exposures (15 + 15, vs. 30 fields). The same also holds for ABCP, NPE, and Esoteric underlying exposures.

52. In all of these situations, the practical consequence is that reporting entities can effectively report 'No Data' options ND1-4 in all of the template fields where these 'No Data' options can be entered. In other words, there is no guarantee that a submission of underlying exposures data for a securitisation will contain a single field (where 'No Data' options ND1-4' may be used) that has perfect data for all underlying exposures in that securitisation (i.e. no 'No Data' options ND1-4 used for any underlying exposure in that field)[27].

53. However, this does not imply that *no* information will be made available on all of the underlying exposures in *all* of these fields. Indeed, the 'number of fields' thresholds rely on different percentages of use of the 'No Data' options ND1-4 in a given field, which implies that the threshold can still be binding for reporting entities. This is further explained with a concrete example in the following paragraphs and is an important

[26] Plus the further 37 fields in the auto loans template where 'No Data' options ND1-4 are not allowed to be entered.
[27] At the same time, there are a further 37 fields in the auto loans template where 'No Data' options ND1-4 are not allowed to be entered, which implies that there will be complete information for all auto loans in the securitisation in these fields (otherwise the securitisation repository would reject the data submission).

scenario to bear in mind when considering how the data landscape will look like during the early stages of the implementation of ESMA's templates.

54. Taking the example of residential mortgages, under the proposed calibrations, a reporting entity has a 'budget' of up to 30 'legacy assets systems' fields. Recall that 'legacy assets' fields are defined as those fields where the use of 'No Data' options ND1-4 across all of the underlying exposures in that field is greater than 0% and below the percentage threshold (10% under the current proposal). This implies that the reporting entity can fill in up to 30 fields in the residential mortgages template with 'No Data' options ND1-4 across up to 10% of the number of underlying exposures in the securitisation (i.e. 'No Data' options ND1-4 being reported for up to 10% of all residential mortgages for Field 1, and again for Field 2, …, Field 29, and Field 30). From a different perspective, there is still meaningful information being provided in each of these 30 fields by the reporting entity for 90-100% of the number of residential mortgages in the securitisation[28].

55. Next in this example, an additional 26 fields in the residential mortgages underlying exposures template allow 'No Data' options ND1-4 to be entered in (i.e. 56 fields allowing these 'No Data' options minus the 30 fields used under the 'legacy assets' fields). Because the reporting entity has a further tolerance 'budget' of 26 'legacy IT systems' fields, it can report each of the remaining 26 fields with 'No Data' options ND1-4 for more than 10% and up to 100% of the residential mortgages in the securitisation (i.e. 'No Data' options ND1-4 being reported across 10-100% of all residential mortgages for Field 31, and again for Field 32, …, Field 55, and Field 56).

56. These threshold proposals are considered to proportionately balance the provision of a measure of tolerance with the understandable need for safeguards against abuse of that tolerance, also reflecting ESMA's investor protection mandate.

4 How often should the thresholds be revised and how should this be done?

57. The thresholds will be gradually tightened over time as market participants are able to improve their data collection and reporting processes. **However, it appears too early to stipulate how often the thresholds will be revised.** As the disclosure templates and the package of securitisation repository technical standards have been adopted by the Commission in the form of Delegated Regulations during 2019, it appears sensible to also allow sufficient time for market participants to adapt to the first threshold calibrations as they begin providing data submissions during 2020.

58. A related point is whether it would be useful for ESMA to define a path for the thresholds over time. This would appear to make it easier for market participants to organise the evolution of their reporting systems. On the other hand, there is little experience with

[28] However, in line with the example in footnote 13, there are still many fields in each template where 'No Data' options ND1-4 are not allowed to be entered. This implies that there will be complete information in these fields for all underlying exposures (otherwise the securitisation repository would reject the data submission).

market participants' ability to complete the present templates. Moreover, in the event that the thresholds would need to be adjusted, this could still be done with sufficient advance notice. **It is therefore not proposed to define a threshold path, but instead to use a single set of numbers for the time being.**

Q5: Do you have any comments on the threshold revision process? Are there any other aspects on this topic that are missing in your view and should be taken into consideration?

5 Annexes

5.1 Annex I: Summary of questions

Q1: Do you agree with the guiding principles used for developing the thresholds, as discussed in this section (section 3.1)?

Q2: Do you agree with the proposed calibration approach and proposal for the percentage threshold, as discussed in this section (section 3.4)?

Q3: Do you agree with the proposed calibration approach and proposal for the 'number of legacy assets fields' thresholds, as discussed in this section (section 3.5)?

Q4: Do you agree with the proposed calibration approach and proposal for the 'number of legacy IT system fields' thresholds, as discussed in this section (section 3.6)?

Q5: Do you have any comments on the threshold revision process? Are there any other aspects on this topic that are missing in your view and should be taken into consideration?

5.2 Annex II: Example application of a representativeness verification of a sample exposure type report with 100 underlying exposures of residential real estate

Loan #	Origination Date	Maturity Date	Borrower Geographic Region	Borrower is resident of country of loan?	Borrower Employment Status	Borrower Income	Income Verification	Debt To Income Ratio (%)	Original Loan to Value Ratio (%)	Origination Channel	Loan Purpose	Any other loans outstanding?	Interest Rate Type	Current Interest Rate Margin (%)	Interest Rate Reset Interval (months)
1	3/1/2010	12/17/2026	BE351	Y	PUBLIC SECTOR	€ 59,462	ND1	40	48	BROKER	PURCHASE	NO	FLOATING	1.76	3
2	5/27/2014	9/17/2032	BE351	Y	PUBLIC SECTOR	€ 13,638	ND1	6	38	INTERNET	PURCHASE	NO	FLOATING	1.14	3
3	2/15/2011	7/9/2030	BE351	Y	PRIVATE SECTOR	€ 66,726	ND1	6	70	INTERNET	PURCHASE	NO	FIXED	ND5	ND5
4	7/4/2010	7/26/2032	BE351	Y	ND1	ND1	ND1	ND1	ND1	ND1	ND1	ND1	FIXED	ND5	ND5
5	3/5/2009	7/6/2027	BE351	N	ND1	ND1	ND1	ND1	ND1	ND1	ND1	ND1	FIXED	ND5	ND5
6	1/10/2009	12/24/2025	BE351	N	ND1	€ 76,925	ND1	ND1	ND1	ND1	ND1	ND1	FIXED	ND5	ND5
7	3/19/2008	8/15/2029	BE351	N	ND1	€ 56,961	ND1	ND1	ND1	BRANCH	ND1	ND1	FIXED	ND5	ND5
8	11/20/2016	8/15/2031	BE201	Y	PRIVATE SECTOR	€ 40,953	ND1	34	75	BRANCH	EQUITY RELEASE	YES	FLOATING	1.68	6
9	12/5/2017	7/18/2035	BE201	Y	PRIVATE SECTOR	€ 24,870	ND1	40	54	BRANCH	CONSTRUCTION	NO	FIXED	ND5	ND5
10	11/6/2010	10/22/2027	BE201	Y	PRIVATE SECTOR	€ 90,232	ND1	39	54	INTERNET	CONSTRUCTION	NO	FIXED	ND5	ND5
11	11/22/2014	1/2/2033	BE201	Y	PRIVATE SECTOR	€ 82,689	ND1	18	55	INTERNET	CONSTRUCTION	YES	FLOATING	1.15	6
12	2/4/2012	5/22/2031	BE201	Y	PRIVATE SECTOR	€ 64,340	ND1	7	39	BRANCH	PURCHASE	YES	FLOATING	1.33	6
13	9/12/2010	7/2/2033	BE201	Y	PRIVATE SECTOR	€ 76,171	ND1	9	46	BRANCH	PURCHASE	YES	FLOATING	1.18	6
14	6/8/2009	6/16/2028	BE442	Y	PRIVATE SECTOR	€ 22,772	ND1	29	71	BRANCH	PURCHASE	NO	FLOATING	1.69	6
15	11/4/2009	5/13/2026	BE442	Y	ND1	ND1	ND1	ND1	69	ND1	ND1	ND1	FIXED	ND5	ND5
16	7/20/2008	1/5/2030	BE442	Y	ND1	ND1	ND1	ND1	66	ND1	ND1	ND1	FIXED	ND5	ND5
17	1/22/2017	1/20/2032	BE442	Y	PUBLIC SECTOR	€ 24,832	ND1	ND1	34	ND1	ND1	ND1	FIXED	ND5	ND5
18	4/30/2018	2/16/2036	BE442	Y	PRIVATE SECTOR	€ 73,939	ND1	ND1	45	ND1	ND1	ND1	FIXED	ND5	ND5
19	5/30/2011	5/3/2028	BE442	N	PRIVATE SECTOR	€ 18,490	ND1	27	54	BRANCH	PURCHASE	NO	FLOATING	1.18	6
20	12/29/2014	8/25/2033	BE442	N	PRIVATE SECTOR	€ 29,897	ND1	25	75	BRANCH	PURCHASE	NO	FLOATING	1.41	6
.	.	.	.	.	.	.	[ND1]	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	[ND1]	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	[ND1]	.	.	.	.	.	.	.	.
100	5/20/2017	4/7/2032	BE331	Y	UNEMPLOYED	€ 58,515	ND1	29	56	BRANCH	PURCHASE	NO	FIXED	ND5	ND5
Memo: Are options ND1-ND4 allowed in this field?	*YES*	*YES*	*NO*	*NO*	*YES*	*YES*	*YES*	*YES*	*YES*	*YES*	*YES*	*YES*	*NO*	*NO*	*NO*
% use of No Data options	*0%*	*0%*	*N/A*	*N/A*	*6%*	*4%*	*100%*	*8%*	*4%*	*7%*	*8%*	*8%*	*N/A*	*N/A*	*N/A*

Steps to be taken by the securitisation repository based on this data submission, for 4 different possible scenarios with respect to the threshold calibrations

Assumed thresholds per scenario:	**Threshold calibration scenario 1**	**Threshold calibration scenario 2**	**Threshold calibration scenario 3**	**Threshold calibration scenario 4**
Percentage threshold regarding the use of No Data options in a given field	**10%**	**5%**	**10%**	**15%**
Number of fields threshold for Check 1 ('legacy assets')	**9**	**9**	**6**	**9**
Number of fields threshold for Check 2 ('legacy IT systems')	**4**	**4**	**4**	**4**

Perform Check 1 (check 'legacy assets' fields):

1. What is the percentage threshold?	**10%**	**5%**	**10%**	**15%**
2. What is the number of fields where the percentage of ND options is above 0% and below this percentage threshold?	**7**	**2**	**7**	**7**
3. What is the number of fields where we tolerate this situation? (i.e. the number of fields threshold for check 1)	**9**	**9**	**6**	**9**
4. Is the actual number of fields in this situation below or equal to/above the threshold (i.e. pass or fail the test?)	**PASS**	**PASS**	**FAIL**	**PASS**

Perform Check 2 (check 'legacy IT systems' fields):

1. What is the percentage threshold?	**10%**	**5%**	**10%**	**15%**
2. What is the number of fields where the percentage of ND options is equal to or above this percentage threshold?	**1**	**6**	**1**	**1**
3. What is the number of fields where we tolerate this situation? (i.e. the number of fields threshold for check 2)	**4**	**4**	**4**	**4**
4. Is the actual number of fields in this situation below or equal to/above the threshold (i.e. pass or fail the test?)	**PASS**	**FAIL**	**PASS**	**PASS**

FINAL ACTION TO BE TAKEN BY THE REPOSITORY ON THE DATA SUBMISSION:	**ACCEPT**	**REJECT**	**REJECT**	**ACCEPT**

5.3 Annex III: Guidelines on securitisation repository data completeness and consistency thresholds

I. Scope

Who?

1. These guidelines apply to securitisation repositories.

What?

2. These guidelines apply in relation to the obligation for securitisation repositories to verify that the use of 'No Data Options' in a data submission does not prevent the submission from being sufficiently representative of the underlying exposures in the securitisation pursuant to Article 4(2)(d) of the Securitisation Repository Operational Standards Delegated Regulation.

When?

3. These guidelines apply from [**dd month yyyy**].

II. Legislative references, abbreviations and definitions

Legislative references

ESMA Regulation	Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC[29]
Securitisation Regulation	Regulation (EU) 2017/2402 of the European Parliament and of the Council of 12 December 2017 laying down a general framework for securitisation and creating a specific framework for simple, transparent and standardised securitisation, and amending Directives 2009/65/EC, 2009/138/EC and 2011/61/EU and Regulations (EC) No 1060/2009 and (EU) No 648/2012[30]

[29] OJ L 331, 15.12.2010, p. 84.
[30] OJ L 347, 28.12.2017, p. 35.

Securitisation Repository Operational Standards Delegated Regulation	Commission Delegated Regulation (EU) …/... supplementing Regulation (EU) 2017/2402 of the European Parliament and of the Council with regard to regulatory technical standards on securitisation repository operational standards for data collection, aggregation, comparison, access and verification of completeness and consistency
Securitisation Disclosure Requirements Delegated Regulation	Commission Delegated Regulation (EU) …/… supplementing Regulation (EU) 2017/2402 of the European Parliament and of the Council with regard to regulatory technical standards specifying the information and the details of a securitisation to be made available by the originator, sponsor and SSPE

Abbreviations

ESMA	European Securities and Markets Authority
EU	European Union

Definitions

applicable 'No Data Options'	the 'No Data Options' set out in Article 9(3) of the Securitisation Disclosure Requirements Delegated Regulation, excluding 'ND5'
exposure type report	the information reported in a data submission for a securitisation referred to in one of Annexes II to XI of the Securitisation Disclosure Requirements Delegated Regulation, excluding information on inactive underlying exposures referred to in Article 2(5)(b) of that Regulation

III. Purpose

4. These guidelines are based on Article 16(1) of the ESMA Regulation. The objectives of these guidelines are to establish consistent, efficient and effective supervisory practices within the European System of Financial Supervision and to ensure the common, uniform and consistent application of the Securitisation Regulation. These guidelines achieve these objectives by describing thresholds for when the use of 'No Data Options' prevent the data submission from being '*sufficiently representative of the underlying exposures in the securitisation*' within the meaning of Article 4(2)(d) of the Operational Standards Delegated Regulation.

IV. Compliance and reporting obligations

Status of the guidelines

5. In accordance with Article 16(3) of the ESMA Regulation, securitisation repositories must make every effort to comply with these guidelines.

6. ESMA will assess the application of these guidelines by securitisation repositories through its ongoing direct supervision.

Reporting requirements

7. Securitisation repositories are not required to report whether they comply with these guidelines.

V. Guidelines on securitisation repository data completeness and consistency thresholds

8. Securitisation repositories should verify that the 'No Data Options' do not prevent the data submission from being sufficiently representative of the underlying exposures in the securitisation in accordance with Article 4(2)(d) of the Securitisation Repository Operational Standards Delegated Regulation by determining:

   (a) the individual field percentages of applicable 'No Data Options' for each exposure type report in that data submission; and

   (b) whether the number of those percentages exceeds any of the thresholds applicable to those exposure type reports.

9. For the purposes of point (a) of paragraph 8, securitisation repositories should determine the individual field percentages of applicable 'No Data Options' for an exposure type report by:

   (a) determining the number of applicable 'No Data Options' reported in each field in that exposure type report; and

   (b) dividing each of those field numbers by the total number of underlying exposures reported in that exposure type report.

10. For the purposes of point (b) of paragraph 8, securitisation repositories should determine whether the number of individual field percentages of applicable 'No Data Options' for an exposure type report exceeds the thresholds applicable to that exposure type report by determining:

    (a) the number of individual field percentages in the exposure type report that are:

        (i) greater than 0% and below 10% ('Threshold 1 percentage occurrence'); and
        (ii) equal to or greater than 10% ('Threshold 2 percentage occurrence');

    (b) whether the Threshold 1 percentage occurrence exceeds Threshold 1 set out in Annex A applicable to that exposure type report; and

(c) whether the Threshold 2 percentage occurrence exceeds Threshold 2 set out in Annex A applicable to that exposure type report.

11. If either threshold set out in Annex A is exceeded for any of the exposure type reports in the data submission, securitisation repositories should consider that the 'No Data Options' prevent that data submission from being sufficiently representative of the underlying exposures in accordance with Article 4(2)(d) of the Securitisation Repository Operational Standards Delegated Regulation.

12. An example of the application of a representativeness verification in accordance with paragraphs 8 to 11 for an exposure type report on 'residential real estate' within a data submission for a securitisation is provided in Annex B.

ANNEX A

Thresholds applicable to the exposure type reports

Annex in Securitisation Disclosure Requirements Delegated Regulation	Exposure type report	Threshold 1	Threshold 2
II	Residential Real Estate	30	30
III	Commercial Real Estate	50	50
IV	Corporate	20	20
V	Automobile	15	15
VI	Consumer	15	15
VII	Credit card	10	10
VIII	Leasing	15	15
IX	Esoteric	61	61
X	Add-On for Non-Performing Exposures	203	203
XI	ABCP	39	39

ANNEX B

Example application of a representativeness verification of a sample exposure type report with 100 underlying exposures of residential real estate

Loan #	Origination Date	Maturity Date	Borrower Geographic Region	Borrower is resident of country of loan?	Borrower Employment Status	Borrower Income	Income Verification	Debt To Income Ratio (%)	Original Loan to Value Ratio (%)	Origination Channel	Loan Purpose	Any other loans outstanding?	Interest Rate Type	Current Interest Rate Margin (%)	Interest Rate Reset Interval (months)
1	3/1/2010	12/17/2026	BE351	Y	PUBLIC SECTOR	€ 59,462	**ND1**	40	48	BROKER	PURCHASE	NO	FLOATING	1.76	3
2	5/27/2014	9/17/2032	BE351	Y	PUBLIC SECTOR	€ 13,638	**ND1**	6	38	INTERNET	PURCHASE	NO	FLOATING	1.14	3
3	2/15/2011	7/9/2030	BE351	Y	PRIVATE SECTOR	€ 66,726	**ND1**	6	70	INTERNET	PURCHASE	NO	FIXED	**ND5**	**ND5**
4	7/4/2010	7/26/2032	BE351	Y	**ND1**	**ND1**	**ND1**	**ND1**	**ND1**	**ND1**	**ND1**	**ND1**	FIXED	**ND5**	**ND5**
5	3/5/2009	7/6/2027	BE351	N	**ND1**	**ND1**	**ND1**	**ND1**	**ND1**	**ND1**	**ND1**	**ND1**	FIXED	**ND5**	**ND5**
6	1/10/2009	12/24/2025	BE351	N	**ND1**	€ 76,925	**ND1**	**ND1**	**ND1**	**ND1**	**ND1**	**ND1**	FIXED	**ND5**	**ND5**
7	3/19/2008	8/15/2029	BE351	N	**ND1**	€ 56,961	**ND1**	**ND1**	**ND1**	BRANCH	**ND1**	**ND1**	FIXED	**ND5**	**ND5**
8	11/20/2016	8/15/2031	BE201	Y	PRIVATE SECTOR	€ 40,953	**ND1**	34	75	BRANCH	EQUITY RELEASE	YES	FLOATING	1.68	6
9	12/5/2017	7/18/2035	BE201	Y	PRIVATE SECTOR	€ 24,870	**ND1**	40	54	BRANCH	CONSTRUCTION	NO	FIXED	**ND5**	**ND5**
10	11/6/2010	10/22/2027	BE201	Y	PRIVATE SECTOR	€ 90,232	**ND1**	39	54	INTERNET	CONSTRUCTION	NO	FIXED	**ND5**	**ND5**
11	11/22/2014	1/2/2033	BE201	Y	PRIVATE SECTOR	€ 82,689	**ND1**	18	55	INTERNET	CONSTRUCTION	YES	FLOATING	1.15	6
12	2/4/2012	5/22/2031	BE201	Y	PRIVATE SECTOR	€ 64,340	**ND1**	7	39	BRANCH	PURCHASE	YES	FLOATING	1.33	6
13	9/12/2010	7/2/2033	BE201	Y	PRIVATE SECTOR	€ 76,171	**ND1**	9	46	BRANCH	PURCHASE	YES	FLOATING	1.18	6
14	6/8/2009	6/16/2028	BE442	Y	PRIVATE SECTOR	€ 22,772	**ND1**	29	71	BRANCH	PURCHASE	NO	FLOATING	1.69	6
15	11/4/2009	5/13/2026	BE442	Y	**ND1**	**ND1**	**ND1**	**ND1**	69	**ND1**	**ND1**	**ND1**	FIXED	**ND5**	**ND5**
16	7/20/2008	1/5/2030	BE442	Y	**ND1**	**ND1**	**ND1**	**ND1**	66	**ND1**	**ND1**	**ND1**	FIXED	**ND5**	**ND5**
17	1/22/2017	1/20/2032	BE442	Y	PUBLIC SECTOR	€ 24,832	**ND1**	**ND1**	34	**ND1**	**ND1**	**ND1**	FIXED	**ND5**	**ND5**
18	4/30/2018	2/16/2036	BE442	Y	PRIVATE SECTOR	€ 73,939	**ND1**	**ND1**	45	**ND1**	**ND1**	**ND1**	FIXED	**ND5**	**ND5**
19	5/30/2011	5/3/2028	BE442	N	PRIVATE SECTOR	€ 18,490	**ND1**	27	54	BRANCH	PURCHASE	NO	FLOATING	1.18	6
20	12/29/2014	8/25/2033	BE442	N	PRIVATE SECTOR	€ 29,897	**ND1**	25	75	BRANCH	PURCHASE	NO	FLOATING	1.41	6
.	.	.	.	.	.	.	**[ND1]**	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	**[ND1]**	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	**[ND1]**	.	.	.	.	.	.	.	.
100	5/20/2017	4/7/2032	BE331	Y	UNEMPLOYED	€ 58,515	ND1	29	56	BRANCH	PURCHASE	NO	FIXED	**ND5**	**ND5**
Memo: Are options ND1-ND4 allowed in this field?	***YES***	***YES***	***NO***	***NO***	***YES***	***YES***	***YES***	***YES***	***YES***	***YES***	***YES***	***YES***	***NO***	***NO***	***NO***
% use of No Data options	***0%***	***0%***	*N/A*	*N/A*	***6%***	***4%***	***100%***	***8%***	***4%***	***7%***	***8%***	***8%***	*N/A*	*N/A*	*N/A*

Steps to be taken by the securitisation repository based on this data submission, for 4 different possible scenarios with respect to the threshold calibrations

Assumed thresholds per scenario:	**Threshold calibration scenario 1**	**Threshold calibration scenario 2**	**Threshold calibration scenario 3**	**Threshold calibration scenario 4**
Percentage threshold regarding the use of No Data options in a given field	**10%**	**5%**	**10%**	**15%**
Number of fields threshold for Check 1 ('legacy assets')	**9**	**9**	**6**	**9**
Number of fields threshold for Check 2 ('legacy IT systems')	**4**	**4**	**4**	**4**

Perform Check 1 (check 'legacy assets' fields):

1. What is the percentage threshold?	**10%**	**5%**	**10%**	**15%**
2. What is the number of fields where the percentage of ND options is above 0% and below this percentage threshold?	**7**	**2**	**7**	**7**
3. What is the number of fields where we tolerate this situation? (i.e. the number of fields threshold for check 1)	**9**	**9**	**6**	**9**
4. Is the actual number of fields in this situation below or equal to/above the threshold (i.e. pass or fail the test?)	**PASS**	**PASS**	**FAIL**	**PASS**

Perform Check 2 (check 'legacy IT systems' fields):

1. What is the percentage threshold?	**10%**	**5%**	**10%**	**15%**
2. What is the number of fields where the percentage of ND options is equal to or above this percentage threshold?	**1**	**6**	**1**	**1**
3. What is the number of fields where we tolerate this situation? (i.e. the number of fields threshold for check 2)	**4**	**4**	**4**	**4**
4. Is the actual number of fields in this situation below or equal to/above the threshold (i.e. pass or fail the test?)	**PASS**	**FAIL**	**PASS**	**PASS**

FINAL ACTION TO BE TAKEN BY THE REPOSITORY ON THE DATA SUBMISSION:	**ACCEPT**	**REJECT**	**REJECT**	**ACCEPT**