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#### **EXECUTIVE SUMMARY**

In this report, we provide a general overview of the SME data available in our database<sup>1</sup>, which includes the loan level data (LLD) of all the public securitisations used for ECB repo collateral from 2013-Q3 to 2018-Q4.2 Our various exhibits show the most salient features of the data and should give a good starting point to research users. Please note that we do not systematically provide explanations for all the observations highlighted in the various exhibits, as this would involve more in-depth work, beyond the scope of this essentially descriptive paper. Nevertheless, we encourage our data users to be curious and "dig deeper", or eventually contact us if they have questions.

We see that the total outstanding amount of SME loans decreased from a maximum of ca. EUR 85 billion in 2013-Q3 down to less than EUR 60 billion in 2018-Q4, while the number of active loans fluctuated around 750,000. Deal diversification decreased since 2013-Q2, reflecting the termination of legacy deals and the increasing bank concentration in Europe (particularly in Spain). The borrowers are mostly small or very small SMEs, and our database includes few large CLO-type loans. The loans are sometimes securitised long after origination, so we have loans originated in the years before the crisis. As expected, we see that performance data shows a substantial improvement since the end of 2013, particularly in southern Europe. The decrease of interest rates in most countries is also visible in our data.

Our data represents a significant sample of European SME loans, albeit with a "securitisation bias"; caution should therefore be used when using it to draw conclusions b eyond securitisation, as discussed in Appendix 2. Finally, most of the sudden changes visible in our data occur because of a change in deal availability. Appendix 3 shows the relative importance of the various deals to each country; this explains some of the changes visible in our charts.

Securitisation is not equally used in all countries and by all lenders and this influences data availability. We have thus more SME data for Belgium, Italy and Spain than for other countries. In particular, there is comparatively little data available for Germany where SME securitisation has become less important than it once was.<sup>3</sup> In the case of France, most data come from ESNI deals.<sup>4</sup> The last Dutch SME deal that reported data to our database became inactive in Q2 2018, leaving our database with no Dutch data for the second half of 2018.

ED started collecting data from Q1 2013 onwards, but due to data quality and completeness issues, we decided to use the submissions from Q3 2013 onwards for this study, showing the data "as is", without specific adjustments other than the elimination of dummy values. The occasional use of dummy values in early submissions can distort calculations if not eliminated prior to analysis

<sup>2</sup> We found data quality to be suitable to start our time series from Q3 2013 onwards for the fields we selected. See Appendix 1 provides more details regarding data selection.

Prior to the crisis, there were far more SME securitisations in Germany (securitisations of the "PROMISE" series in particular)

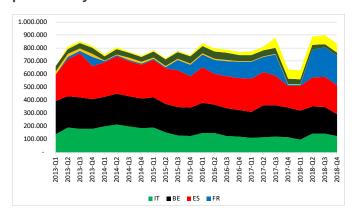
Regarding the Euro Secured Notes Issuer (ESNI) programme, see Banque de France



#### **AVAILABLE DATA** 2

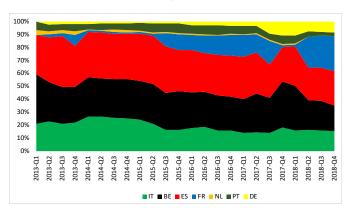
The number of active loans⁵ available in our database has remained quite stable over time at about 750,000 active loans (Exhibit 1a). In contrast, the total number of loans that was reported to our database at least once far exceeds this number because some revolving securitisations replenish their loan portfolios very frequently with very shortterm loans. Loan turnover can have several causes such as 1) new loans added to revolving pools; 2) the very short maturity of some loans; 3) some deals have become inactive since they started reporting to ED while others have replaced them. Finding the exact number of distinct loans is more delicate due to the peculiarities affecting the reporting of the loan ID field (field AS3 of the ECB's SME template)<sup>6</sup>. Data availability is driven by deal availability and submissions. Some deals contribute a disproportionate amount of data to the database and caution should be used when analysing the available data. These concentration effects explain the sharp variations often observed in our exhibits when one new deal is added to the sample or disappears. For instance, the dip in the number of loans from 2017-Q4 to 2018-Q1 occurred when no data was received for the French ESNI deal with the greatest number of loans (Exhibit 1a and b).7

Exhibit 1 (a): Number of active loans outstanding per country



Source: European DataWarehouse

Exhibit 1 (b): Share of number of active loans (as % of total number of loans)



Source: European DataWarehouse

Although the number of loans has not substantially decreased from 2013 to 2018, the amount of loans (Exhibit 2a) and the number of active securitisations have (Exhibit 3a and 3b). Exhibit 1b and 2b reveal similar tendencies in terms of data availability per country.

Defined as loans for which the field "Current Balance", AS55 exceeds 0

While the loan ID field is generally not supposed to be modified overtime, the taxonomy (see ECB SME template.) allows for changes, provided that the old loan ID is submitted along with the new loan ID, separated by a comma. A loan ID change may be due to a bank merger, a loan status change or a loan modification. Reporting practices can change depending on the originator or the market and are therefore trickier to investigate. Producing a list of defaulted loans, counting each loan one time only and for its amount at time of default, is therefore not as straightforward as it should be. This topic will be the object of a specific upcoming publication.

The deal ESNI - CR GCA-CPE-006, ED Code SMEMFR000226100420159



Exhibit 2a: Amounts of loans outstanding (in EUR millions)

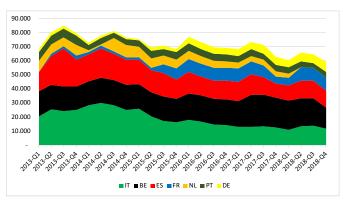
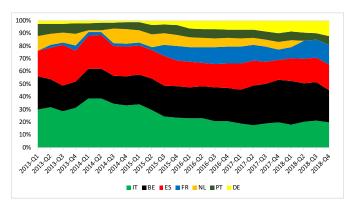


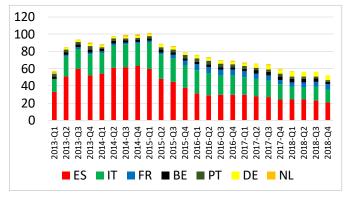
Exhibit 2b: Share of amount of loans outstanding (as % of amount of loans)



Source: European DataWarehouse

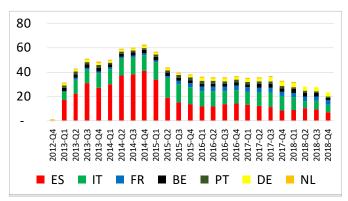
The number of active deals has decreased from 101 in Q1 2015 to 52 in Q4 2018 (Exhibit 3a), reflecting decreased use of ABS SME securitisations recently, as vintage deals became inactive and were not subsequently replaced. Spain is the most represented country when looking at the number of deals, followed by Italy. The Netherlands is generally represented in our database by only one deal at a given point in time.8

Exhibit 3a: Number of outstanding active SME deals per country



Source: European DataWarehouse

Exhibit 3b: Effective number of active SME deals per country



Source: European DataWarehouse

Deal diversity is greatest in Italy and Spain whereas the other markets are much more concentrated. The effective number of deals showed in Exhibit 3b is a concentration measure, which reflect the fact that not all deals are equally large. In Spain, the increase in deal concentration is also a reflection of the mergers and acquisition activity that took place in the wake of the crisis, when many small lenders were purchased by larger ones. Traditionally, small Spanish banks also securitise loans, but this trend is disappearing. These changes are visible in our Appendix 3.

The average deal size in the case of the Netherlands changes substantially (Exhibit 4), reflecting the fact that although we have data for essentially 4 Dutch SME deals, data is not available at the same time for all deals. See Appendix 3.

The effective number of deals is a concentration measure, calculated as the inverse of the Herfindahl Index. Thus, in a market with 10 deals representing 10% of the EUR amount of this market each, the effective number would be 10, but the more unequal the sizes, the lower the effective number becomes, reflecting increased concentration



There are substantial differences in outstanding pool size within and across countries. The largest SME deal in our database is a deal from BNP Paribas Fortis SA/NV (Esmée Master Issuer N.V. - S.A.), with a replenishing portfolio of almost EUR10 billion.<sup>10</sup> In contrast, old amortising deals are the smallest, with sometimes less than EUR50 million.<sup>11</sup> Deal size also tends to reflect the profile of the originators, as large lenders typically securitise the largest portfolios.

Average outstanding pool size (EUR Millions) 8.000 7.000 6.000 5.000 4.000 3.000 2.000 1.000 2016-0A 2017.01 5016 5016 5016 50 04 05 05 05 03 20120120 20120120 —FR — <u> —</u>ВЕ —

**Exhibit 4: Average outstanding deal size** 

Source: European DataWarehouse

#### LOAN CHARACTERISTICS

Company size matters, and rating agency methodologies reflect the fact that, all things being equal, higher default rates should be expected for smaller companies than for larger ones. <sup>12</sup> Several fields could be used as an indicator of company size, but most of them are, unfortunately, optional fields. <sup>13</sup> In particular the field "Customer Segment" (AS21), which uses the EC definition, is rarely reported. The Borrower Basel III segment (field AS22) gives some indication of the size of the borrowers. The charts in Appendix 5 suggest that there are a substantial proportion of "corporates" in several countries, but Exhibit 5a shows that most loans were relatively small at origination, indicating that the borrowers were more likely to be small or very small SMEs. Also, less than 1,000 active loans with an original balance more than EUR 5 million were outstanding in our sample of active loans as of Q4 2018. Thus, CLO-type loans are mostly absent from our database, and most loans are rather small (see Exhibits 5a and 5b).

<sup>10</sup> In replenishing deals, the amount of repaid principal is typically reinvested in loans, until the end of the replenishing period, when the bonds are repaid as the portfolio

<sup>11</sup> Most securitisations feature a call option that may be exerted once the portfolio amount has decreased to (typically) 10% of the original pool balance or less.

<sup>12</sup> See Moody's Global Approach to Rating SME Balance Sheet Securitizations

<sup>13</sup> Thus, AS21 "Customer segment", the borrower segment according to EC definition is optional, as are the financial that can give an indication of size (turnover, total liabilities etc...)



Exhibit 5a: Number of loans outstanding in Q4 2015 per country and per original amount

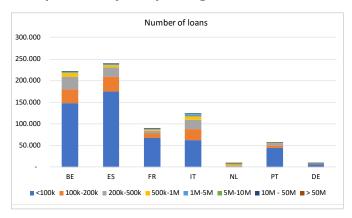
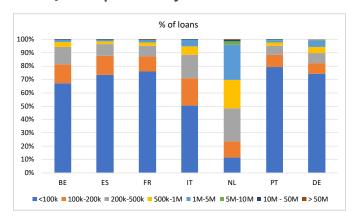


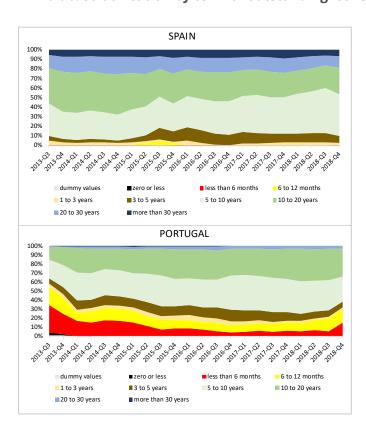
Exhibit 5b: Original amount of outstanding loans as of Q4 2015 per country

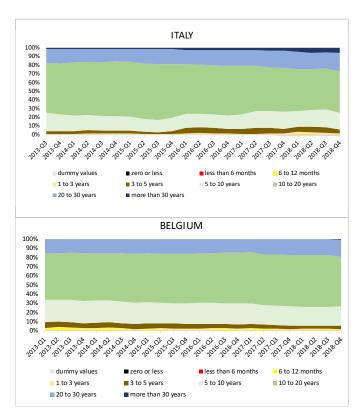


Source: European DataWarehouse

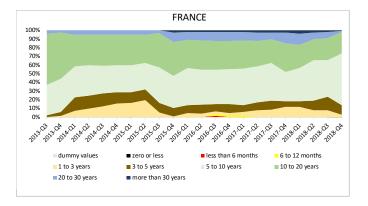
SME loans have typically shorter original terms than mortgages. Exhibit 6 shows the stratification of our SME loans outstanding depending on the original loan term, as a proportion of the outstanding EUR amount. Long term loans with an original maturity more than 20 years represent a relatively small proportion of the outstanding loans in most countries except in the Netherlands. The type of securitisation plays a role in explaining this breakdown, as replenishing securitisations (where loans that are being repaid are replaced by new loans) are more likely to contain short term loans than amortising securitisations. Again, the composition of the securitisation sample plays a key role in explaining original loan terms. For Germany, the proportion of very short-term loans in the sample increases when Geldilux-TS-2015 S.A ("Geldilux", ED Code SMESLU000556100220152) joins the sample in 2015-Q2, because this deal has a revolving pool replenished frequently with very short-term loans.

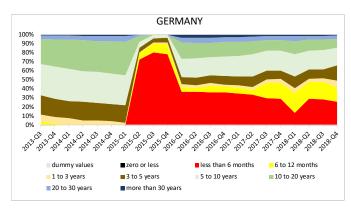
Exhibit 6: Stratification by term of outstanding loans (as % of total EUR outstanding)

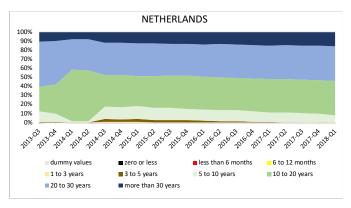






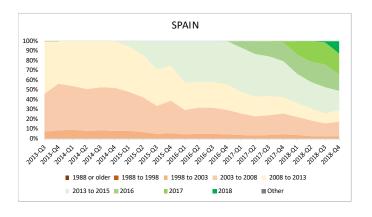


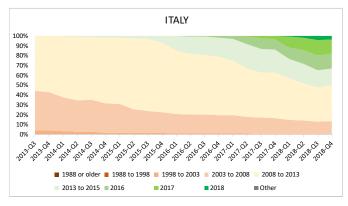




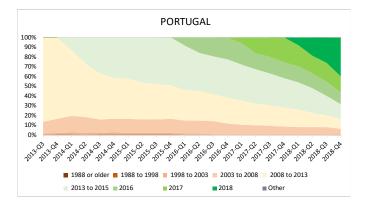
Loan vintage also reflects the shorter term of SME loans. Exhibit 7 below shows the stratification of our outstanding SME loans, depending on the loan origination year. The loan vintage (year of origination) gives an indication of the seasoning of the loan at the time of securitisation (how much time passed between loan origination and securitisation). Revolving pools are the most likely to contain a high share of very recent loans. We see for instance that in Germany, more than half the loans securitised as of Q2 2018 had been originated in 2018, meaning that they were securitised shortly after origination (this reflects the influence of the Geldilux deal for Germany). On the other hand, recent securitisations can include a substantial share of loans originated long before closing date.

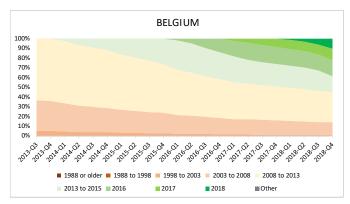
Exhibit 7: Loan stratification by loan vintage (as % of total EUR outstanding)

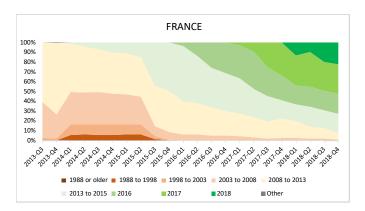


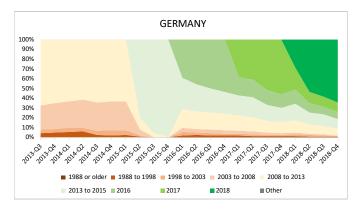


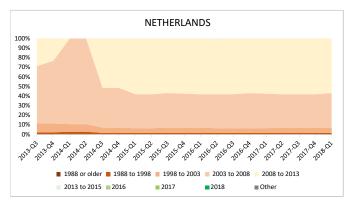












Loans are usually not securitised right after origination and eligibility criteria typically exclude loans that have been in arrears. Consequently, the securitised loans of a given vintage often perform better than the non-securitised loans of the same vintage overall (since only the portion of that vintage that did not become delinquent was securitised).

The borrower's industry (field AS42 NACE code) plays a key role in determining the risk profile of a portfolio<sup>14</sup> and this field has been consistently reported overall. Some industries may be fundamentally risky or exposed to the economic cycles. Our Spanish SME index features performance indices per industry and, as expected, clear differences in performance are visible from 2013-2014; they abated afterwards with the economic recovery (see Appendix

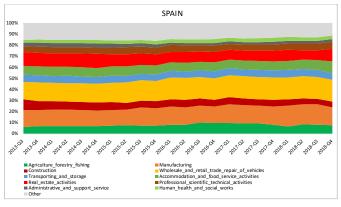


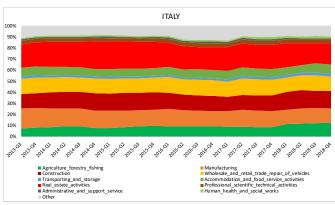
6).<sup>15</sup> Exhibit 8 shows the most important industries (as % of average EUR amount in loans per country). Not all markets are exposed to the same industries. The various industries are represented in function of the importance of SMEs to the economy of a country, the capital needs of these SMEs and their appetite for leverage as well as the way capital is obtained. In particular, leasing may be more attractive than loans in some jurisdiction. Differences across countries are therefore to be expected, although we would probably not expect great changes overtime. For the countries for which we have the most data, the share of the various industries tends to remain rather stable. We thus find that the industry exposure for Spain and Portugal looks quite similar, and that the construction and real estate sectors are most prominent in many countries.

**BREAKDOWN BY INDUSTRY** 100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0% Agriculture\_forestry\_fishing ■ Manufacturing Wholesale\_and\_retail\_trade\_repair\_of\_vehicles Transporting\_and\_storage Accommodation and food service activities ■ Professional scientific technical activities ■ Real estate activities ■ Administrative\_and\_support\_service Human\_health\_and\_social\_works Other

**Exhibit 4: Average outstanding deal size** 

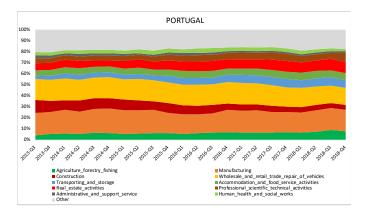


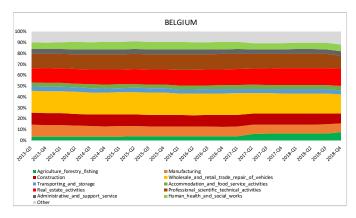


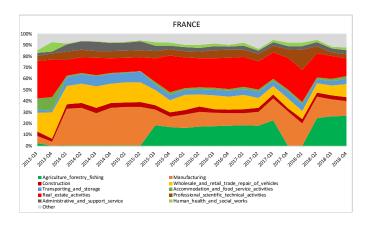


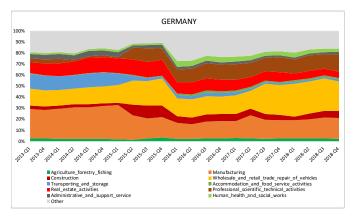
<sup>15</sup> See or Spanish SME Index Q4 2018, available on EDVANCE or upon request











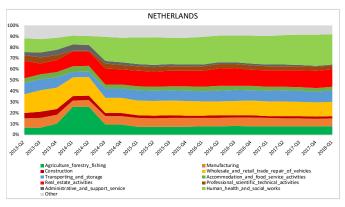
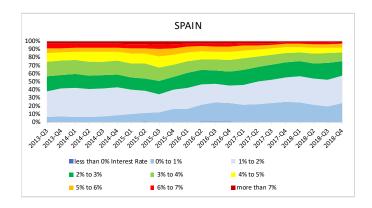
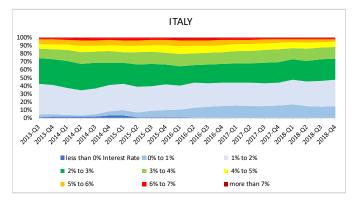


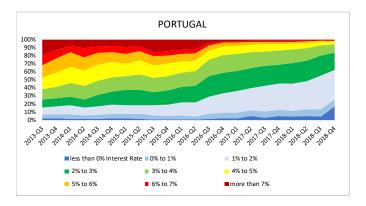
Exhibit 10 below shows the interest rates paid on the loans (as % of the EUR amount of loans outstanding at a given point in time). The sample features only the loans that were securitised, and not all SME loans in a given country. Thus, if Exhibit 8 suggests that interest rates are higher in one country than in another, it could also be because the securitised loans are not necessarily comparable in both markets. We would thus expect unsecured loans to bear higher interest rates than collateralised loans. Here too, sample composition and diversification can explain the sharp changes in the charts, but as expected, we find that interest rates have decreased in all markets since Q3 2013. A more refined analysis of the data (segmenting secured vs unsecured loans, fixed vs variable interest rates, amortising vs bullet loans etc.) would be necessary to draw more specific conclusions.

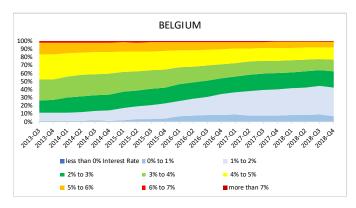
# **EUROPEAN**

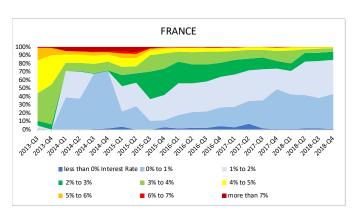
#### Exhibit 10: Loan stratification by interest rates (as % of total EUR outstanding)

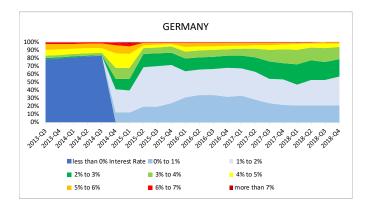


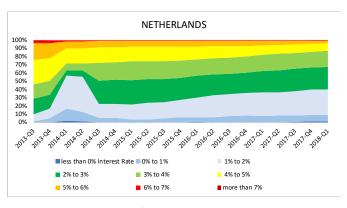












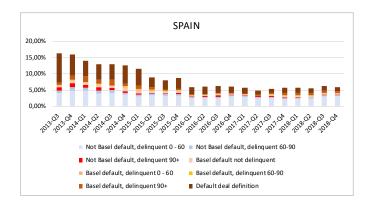


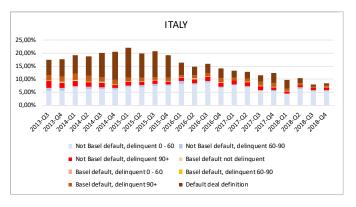
The ECB reporting template lists 24 performance-related fields, of which 12 are mandatory and 12 optional. Making comparisons across deals and countries requires preliminary verifications, due to possible reporting differences, particularly when it comes to the default/recovery and loss fields. It is worth keeping in mind that the loans must typically be performing prior to being securitised. For this reason, we wait for a certain delay after a deal closes before including it in our performance indices (see Appendix 6), as it would otherwise make performance appear better than it truly is. In contrast, Exhibit 11 in this section includes all the data "as is".

Exhibits 11 divides the underperforming loans in 8 different non-overlapping categories (see Appendix 4 for details).16 We see that in Spain, Italy and Portugal, performance has improved greatly in recent years, but this improvement should be interpreted with caution. Indeed, given that the work out process of defaulted SME loans can take years, this decrease in the amount of defaulted loans is most likely only partly due to the actual working out or "curing" of defaulted loans. Instead, this decrease can be attributed to the termination of legacy deals with a high proportion of underperforming loans, and some other underperforming loans were repurchased by their originators. Repurchase of defaulted loans can occur both following a restructuring (which may not always be acceptable under deal documentation), or to improve the apparent performance of a securitised fund and thus avoid its early termination.

The charts in Exhibit 11 thus cannot be directly compared to our indices (see Appendix 6), which are primarily meant to facilitate benchmarking. To complete the Spanish SME index, we intend to publish an Italian SME Index, but we believe that there is not enough diversity or enough deal diversity to introduce a performance index for other countries.

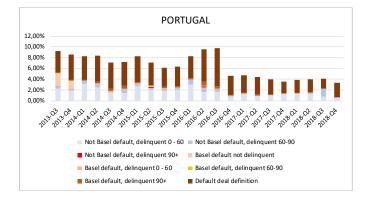
Exhibit 11: Stratification of underperforming loans (as % of total EUR outstanding)

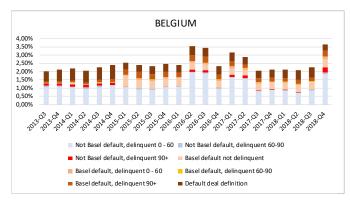


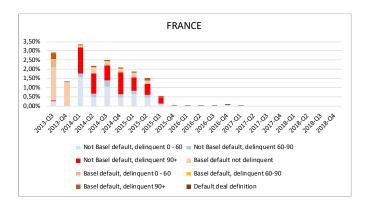


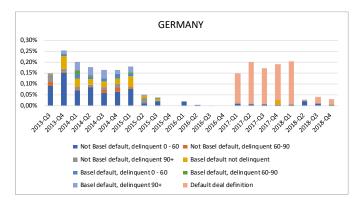
<sup>16</sup> Although Basel default definition would normally include loans that are more than 90 days in arrears, we see that there are some loans that are in arrears more than 90 days and yet not flagged as default under the Basel definition.

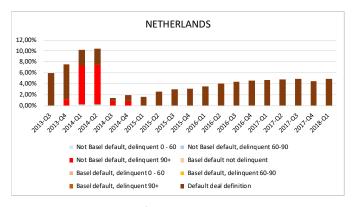
# **EUROPEAN**DATAWAREHOUSE











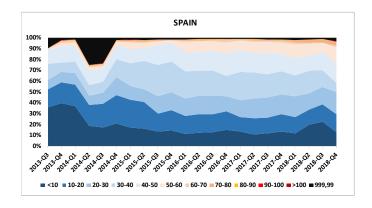
Source: European DataWarehouse

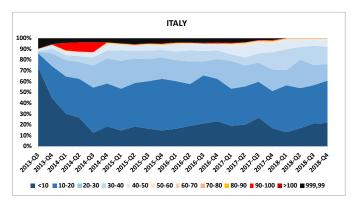
Given that we started collecting data from 2013 onwards, default rates can be calculated from 2013 onwards using a 90 days default definition.

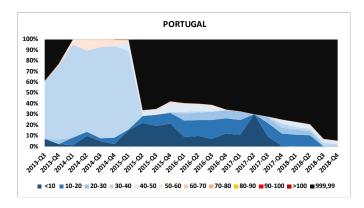
The lender's Loss Given Default (LGD) is available in our database (field AS37). Exhibit 12 shows very different levels of LGD depending on the country. When no data is available, dummy value "999.99" is reported in this field. These different LGD levels can have various explanations depending on loan ranking and collateralisation (also reported to our database). Estimating loss rates or recovery rates on the defaulted loans can be challenging. This is because the recognition of a loss may take a very long time, requiring long time series to come to definitive conclusions. It may therefore be more rewarding to calculate recovery rates (or conservative recovery rate based on partial recoveries), than loss rates on defaulted loans. Our database includes other means of estimating a loss given default (LGD), as it also includes information on the loan collateral.

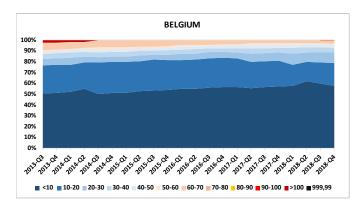


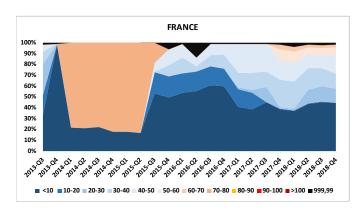
#### Exhibit 12: LGD stratification per country (as % of total EUR outstanding)

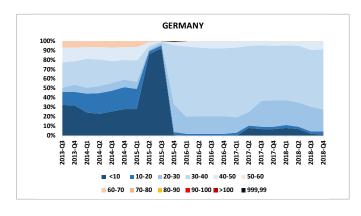


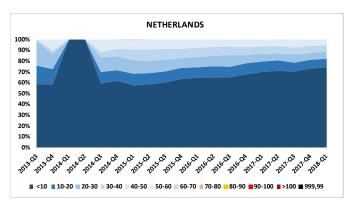














#### **APPENDIX 1: DATA SELECTION**

Data is submitted to our database monthly or quarterly. It is important to look at the submission frequency when making statistics using our database, in order not to triple count the observations for the deals reporting monthly. We endeavoured to select all the quarterly submissions, and one monthly submission per deal and per quarter, as of end of the natural quarter for deals that report monthly (March, June, September, December). When the data of a quarterly submission is as of the first month of the quarter, we chose to select it as the submission for that quarter. Also, the submissions are not always uploaded with the same interval, and eventually, two submissions for two different months may eventually be uploaded within a very short period. Finally, when data is resubmitted, it is possible to have two submissions instead of one. Double submissions typically occur when the first submission contained errors that were corrected in a second submission. In such cases, we select the second submission assuming it has the amended information.

Data users downloading our data should perform extensive data quality and consistency checks on the selected data, particularly of the oldest submissions (prior to 2014).<sup>17</sup> The data submitted to our database may be corrected after a certain date, but errors in past submissions are typically not overwritten for the oldest submissions. Please note in particular:

- Data providers sometimes used dummy values to avoid reporting "NA"; dummy values typically include "99999999999"; "99.99"; "4040404040"; "9.99"
- Decimal point issues sometimes affected percentages in early submissions. For instance, 60% should be reported as 60 not 0.6, so a change in this reporting overtime can be a sign that the first submissions were incorrectly reported and subsequently amended.
- In some early submissions, data was provided in cents rather than Euro. This can be detected when amounts decreased by 100 from one period to the next in the oldest submissions.
- Data inconsistency: if there is a default date, there should be a default amount as well, the default amount should not change overtime, etc...

Our data sample excluded cases where AS55 (current balance) was either 0, or a dummy variable. Floorplan deals (securitisations of loans to car dealers) were excluded from our sample although they are classified as SME for reporting purposes.

## **APPENDIX 2: DATA LIMITATIONS AND BIAS**

Our database includes the underlying loan level data (LLD) of most public European ABS SME securitisations, but does not include private ABS SME deals and CLOs issued prior to 2019. Our database can be used for research beyond securitisation if one keeps in mind the limitations and bias stemming for the securitised nature of these loans. The following factors differentiate our subset of loans from the whole loan universe of a given market:

<sup>17</sup> See for instance our data quality scores, see also our data commentaries to help with data interpretation.



- Loans are securitised only if they fulfil deal-specific "eligibility criteria", 18 which may make them unrepresentative of the remainder of the originator's loan book.
- Lenders are only represented in our database as long as one of their deals is active.
- Loans can be repurchased by the originator following a loan modification, linked or not to underperformance. These underperforming loans would then go back to the books of the lender rather in the securitised pool.

A loan is thus available in our database from the latest of a) the date it is first securitised, and b) the date when bonds of this securitisation became eligible as ECB repo collateral. ED started collecting data for some deals sometimes as early as 2012, but data quality issues mean that data became satisfactory from end of 2013 onwards.

When downloading SME data from our database, it is also important to pay attention to the relative importance of the various securitisations and check to what extent the sample obtained is representative of the topic to be studied. For instance, the market share of lenders may not be fully reflected in our securitisation data.

Sometimes, very specific types of loans are being securitised in a given securitisation. We have thus excluded from the SME sample for this study the floorplan deals (loans to car dealers), which are classified as SME loans for reporting purposes but are too specific to be comparable to other SME loans.

In general, the economic importance of a region in a given country is matched in our data. This point was addressed in previous publications, 19 and this seems to hold for the RMBS and SME data for most of the countries in our database. The fact that all regions are not equally represented in our database may simply reflect the fact that the economic activity of these various regions may need different amounts of leverage. The regional breakdown of the loans in our sample may also simply reflect the regional focus of the lenders represented in our database.

The securitised loans in our database were sometimes originated long before they were securitised. The pool composition is thus often subject to "survivor bias", because very short-term loans may not be securitised at all except in very specific securitisations), and the loans of the same vintage that would have become delinquent, would not have all been securitised, hence giving the appearance that the securitised pool is "better" than the average loans of the same vintage and originator. This "survivor bias" can be reinforced by the loan repurchases, which may occur for various reasons:

- A loan that was securitised by mistake may have to be repurchased (particularly if it encounters performance problems)
- There are typically limits regarding what % of a pool may be modified (for instance, not more than 10% of the original amount of loans may be modified), and there are also limits to the effect the modifications may have on a pool (for instance, prevented the weighted average margin of the loans from dropping below a certain level). The originator may have to repurchase some of the loans it modifies to keep to these limits.

<sup>18</sup> Eligibility criteria may exclude some loans from the securitised pools such as those that are underperforming those with insufficient seasoning, or with lower internal credit ratings for instance.

<sup>19</sup> See "Standardised geographic information for European Loan Level Data"

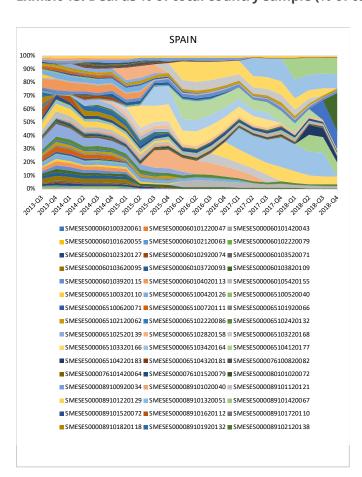


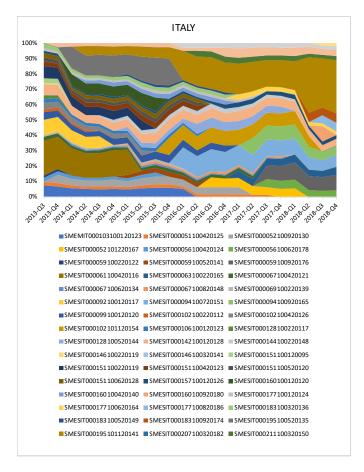
• When a pool has amortised to less than 10% of its original amount, the originator may repurchase it by using a "clean up-call", which interrupts the time series for the remaining loans, even when these are still not fully repaid. It is also possible that before that time, no tranches from that deal remain ECB eligible and that the deal would have stopped reporting altogether.

## 6 APPENDIX 3: RELATIVE IMPORTANCE OF THE VARIOUS DEALS IN OUR SAMPLE

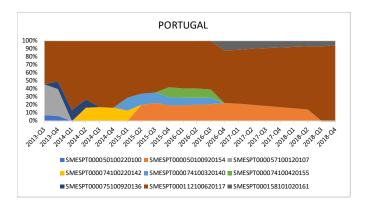
The stacked area charts below show the evolution of the relative importance of the deals composing our sample. It shows that deal diversity (as represented by ED Code) has decreased overtime in Italy and Spain, and that in most cases, one deal represents a sizeable share of the available data. This in turn may introduce a selection bias in the data, which should be taken into consideration.

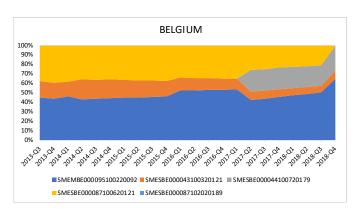
Exhibit 13: Deal as % of total country sample (% of total EUR outstanding)

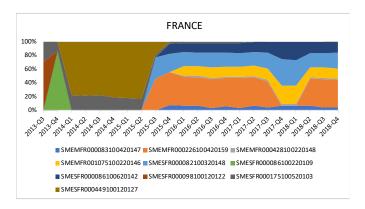


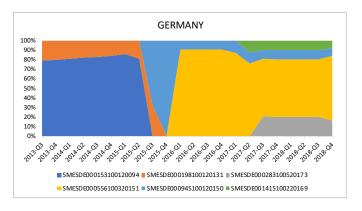


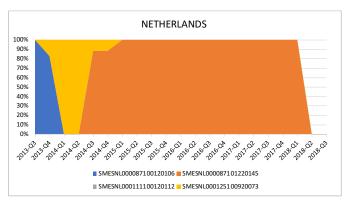














### 7 APPENDIX 4: CATEGORY SEGMENTATION FOR PERFORMANCE CHARTS

The table below shows the mutually exclusive categories used to create the performance charts in this report, depending on the way the three fields AS118, AS121 and AS122 are filled.

**Exhibit 14: Mutually exclusive categories for performance charts** 

	Field		
	AS118*	AS122**	AS121***
Not Basel default, delinquent 0 - 60	> 0 and < 60	N or NA	N or NA
Not Basel default, delinquent 60-90	>=60 and <90	N or NA	N or NA
Not Basel default, delinquent 90+	>= 90	N or NA	N or NA
Basel default not delinquent	<= 0	Υ	N or NA
Basel default, delinquent 0 - 60	> 0 and < 60	Υ	N or NA
Basel default, delinquent 60-90	>=60 and <90	Υ	N or NA
Basel default, delinquent 90+	>= 90	Υ	N or NA
Default deal definition	No condition		Υ

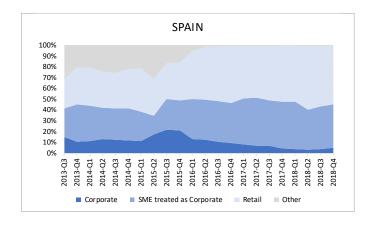
<sup>\*</sup>Number of Days in Principal Arrears

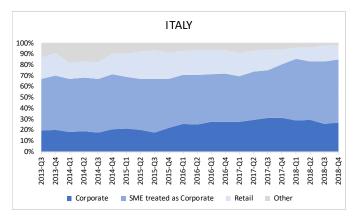
Source: European DataWarehouse

## 8 APPENDIX 5: STRATIFICATION BY "BORROWER BASEL III SEGMENT"

The stacked area charts below show the composition of our data depending on field AS22 "Borrower Basel III segment). The share of loans described as "corporates" varies greatly from one country to the next. The original size of the loans in our sample suggests that the borrowers are rather small SMEs.

Exhibit 15: Stratification by Borrower Basel III segment (as % of total EUR outstanding)

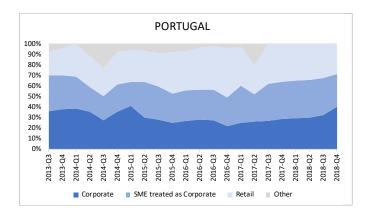


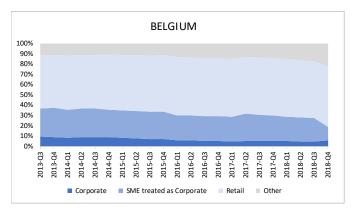


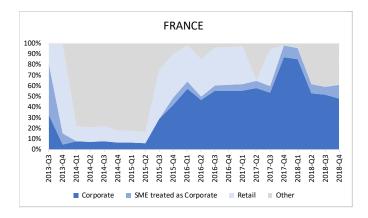
<sup>\*\*</sup>Default or Foreclosure on the loan per Basel III definition

<sup>\*\*\*</sup>Default or Foreclosure on the loan per the transaction definition

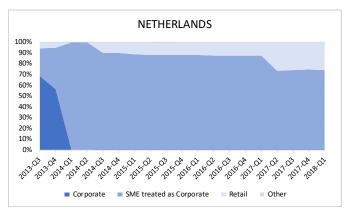














## 9 APPENDIX 6: SPANISH SME INDEX

We have produced a quarterly performance index for Spanish SME loans since May 2016,<sup>20</sup> segmenting the SME data according to different categories. We adjusted the data to enable comparisons across deals and overtime. This performance index focuses on two aspects of performance, delinquencies of 60-90 days and delinquencies of 90-360 days, excluding defaulted loans according to deal default definition.<sup>21</sup> The index thus compares the amount of loans more than 90 days in arrears but less than 360 days in arrears to the amount of non-defaulted loans. Also, deals are only included after a certain delay after closing so that artificial seasonal effects do not distort the observed performance.

Exhibit 16 is an extract from our Spanish SME index, which compares the performance of loans in four industries to the general performance index for all our Spanish SME loans. Please refer to the report explaining how this index<sup>22</sup> was calculated for more details. The index shows a substantial performance improvement since Q4 2013. The spike in delinquencies for real estate developers in Q3 2014 is mostly due to the default of a large borrower.

Pro-cyclical sectors like construction and real estate development performed worse than average during the crisis whereas other industries that are less exposed to the business cycle, such as healthcare and agriculture, performed better.

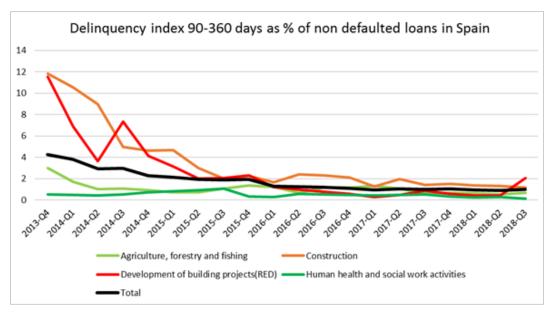


Exhibit 16: Stratification by Borrower Basel III segment (as % of total EUR outstanding)

<sup>20</sup> See "European DataWarehouse (ED) introduces new ED Index for Spanish SMEs based on Loan Level Data", please contact us if you would like to receive a copy.

<sup>21</sup> Defaulted loans according to deal default definition in Spain are already written off, with the effects of that write off already reflected in the deal structures (reserve fund draws, amortisation deficits etc.) whereas delinquencies indicate possible incoming defaults with possible upcoming effects on the structure of the securitised pools. Another problem is that losses may be difficult to disentangle from outstanding defaults.

<sup>22</sup> See "European DataWarehouse (ED) introduces new ED Index for Spanish SMEs based on Loan Level Data"



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