EUROPEAN CENTRAL BANK

BANKING SUPERVISION

Methodological note for the publication of aggregated Supervisory Banking Statistics

This document presents the main features of the publication *Supervisory Banking Statistics* with respect to the scope and content of the data published, the methodology underlying data aggregation and the approach to applying confidentiality requirements.

The note is structured as follows: Section 1 focuses on the content and scope of the publication and sets out the sample of banks considered, the data presented and the breakdowns applied. Section 2 describes the different classifications which are employed to provide complementary views of the sample of banks. Section 3 illustrates the methodology followed with respect to selected aspects of the derivation of the aggregated data. Section 4 defines confidentiality and explains the approach used for this publication.

1 Content of the data

1.1 Sample of banks

The list of banks used for *Supervisory Banking Statistics* comprises banks designated as significant institutions (SIs) and thus directly supervised by the European Central Bank (ECB).[1] SIs, pursuant to their obligations under the Capital Requirements Directive and the associated Capital Requirements Regulation, are required to submit detailed information on their capital adequacy and financial positions (based on the accounting framework used to prepare statutory accounts) according to harmonised reporting frameworks, known as FINREP and COREP.[2] Such frameworks cover both consolidated and individual (solo) reporting. However, for the purpose of this publication the level of reporting corresponds to the highest level of consolidation[3] in the SSM, thereby avoiding double counting issues.

SIs are required to submit COREP. Initially, those SIs that prepared their accounts under international standards, i.e. IFRS/IAS, were required to submit FINREP at the consolidated level; however, from end-2015, FINREP reporting obligations[4] have

1 The full list of significant institutions is available in the ECB Banking Supervision website.

2 The Capital Requirements Regulation (CRR) specifies the reporting obligations under COREP and FINREP for credit institutions. These reporting obligations are further detailed in Commission Implementing Regulation (EU) No 680/2014 laying down implementing technical standards with regard to supervisory reporting of institutions according to Regulation (EU) No 575/2013 of the European Parliament and of the Council and amendments thereof.

3 In the case of stand-alone entities (i.e. entities that do not have subsidiaries that are banks), the highest level of consolidation refers to individual reporting.

4 See Regulation (EU) 2015/534 of the European Central Bank.

been extended to SIs that prepare their accounts under national accounting standards (nGAAP) for both the consolidated and solo level and to those SIs that report only at the solo level.

With the objective of providing as complete as possible and harmonised information to the general public, the group of SIs covered in each reference period includes only those banks reporting FINREP together with COREP at that point in time. Accordingly, the list of banks used for the various reference periods may differ as the list of significant institutions changes and as banks start to report under FINREP obligations. Moreover, bank branches are not required to submit COREP, and SI-designated branches of credit institutions established in European Union (EU) Member States not participating in European banking supervision are excluded from the sample. Banks that have recently been designated as an SI and do not yet report FINREP – because of the time lapse between the designation decision and the start of corresponding reporting obligations – are also excluded from the sample until they begin reporting FINREP.

Supervisory Banking Statistics has published the liquidity coverage ratio (LCR) information of reporting institutions from the third quarter of 2016 onwards.[5] Up to the end of the reference period Q4 2019, the tables showing LCR information – namely tables T06.01.1/2/3 and T06.02.1/2/3 – were derived by aggregating individual reporting for stand-alone entities and consolidated reporting for banking groups where the EU ultimate parent is in the SSM. Therefore, for the purpose of deriving the aggregate LCR, SIs at the highest level of consolidation in the SSM that have a parent institution in an EU country outside the SSM were excluded from the sample. As of the reference period Q1 2020, these entities are also included in the liquidity sample (which is thus aligned with the full sample), using the data reported to the ECB at the highest level of consolidation available at the cut-off date.

The tables showing total exposure to general governments by country of the counterparty are published from the third quarter of 2018 onwards. In accordance with Article 5(b), point 3 of Regulation (EU) No 680/2014, reporting requirements apply to sovereign exposures where the aggregate carrying amount of financial assets from the “General governments” counterparty sector is equal to or higher than 1% of the sum of the total carrying amounts for “Debt securities” and “Loans and advances”. Therefore, the sample of entities in the tables showing information on exposures to general governments – i.e. tables T02.05.1/2/3 – is smaller than the full sample of entities. The template for sovereign exposure is reported on a semi-annual basis, with Q2 and Q4 as the reference periods. Hence, in the Q3 publication the sample of entities and their classifications in tables T02.05.1/2/3 is the same as that for the Q2 publication. Similarly, in the Q1 publication the sample of entities and their classifications in tables T02.05.1/2/3 is the same as that for the previous quarter’s publication.

The table showing information on Internal Ratings Based (IRB) credit risk parameters is also published from the third quarter of 2018 onwards. Where the

[5] Part Six of the CRR specifies the liquidity coverage requirement and liquidity reporting for credit institutions. The CRR is supplemented by Commission Delegated Regulation (EU) 2015/61 of 10 October 2014 with regard to liquidity coverage requirement for Credit Institutions.

conditions set out in Part Three, Title II, Chapter 3 of the CRR are met, the competent authority shall permit institutions to calculate their risk-weighted exposure amounts using the IRB approach. Accordingly, the table showing IRB credit risk parameters (T03.06.1) is derived by considering only a part of the SIs at the highest level of consolidation in the SSM.

1.2 Tables reported

Although the scope of *Supervisory Banking Statistics* is limited to a specific subset of SIs, this document uses the terms “SIs”, “institutions”, “banks” and “entities” interchangeably.

Supervisory Banking Statistics is split into thematic sections that incorporate six areas of relevance for banking supervision:

1. general statistics;
2. balance sheet composition and profitability;
3. capital adequacy and leverage;
4. asset quality;
5. funding;
6. liquidity.

The overview table (T00.01) summarises the key indicators from each of the six areas of relevance for banking supervision and presents the number of SIs in the full and liquidity samples for the last five reporting periods.

Most of the aggregate data are presented along three different dimensions. First, to facilitate the identification of time trends (where possible), data are provided for five consecutive reference periods. The data for the latest quarter are then broken down i) by country (i.e. the country where the bank is supervised)[6] and ii) by classification.

The breakdowns by classification allow entities to be grouped along several dimensions of interest (such as size and risk). This approach facilitates complementary views of the data and highlights certain aspects of banks’ behaviour, showing whether banks belonging to different categories under a given classification have distinctive features.

[6] In a very small number of cases, this differs from the country where most of the bank’s activities are conducted.

The following tables are published:

1. General statistics	
Significant institutions by country and classification	T01.01
Concentration of total assets	T01.02
2. Balance sheet composition and profitability	
Profit and loss figures	T02.01.1 (by reference period) T02.01.2 (by country) T02.01.3 (by classification)
Key performance indicators	T02.02.1 (by reference period) T02.02.2 (by country) T02.02.3 (by classification)
Composition of assets	T02.03.1 (by reference period) T02.03.2 (by country) T02.03.3 (by classification)
Composition of liabilities and equity	T02.04.1 (by reference period) T02.04.2 (by country) T02.04.3 (by classification)
Total exposure to general governments by country of the counterparty	T02.05.1 (by reference period) T02.05.2 (by country) T02.05.3 (by classification)
3. Capital adequacy, leverage and asset quality	
Total capital ratio and its components	T03.01.1 (by reference period) T03.01.2 (by country) T03.01.3 (by classification)
CET1 ratio band	T03.02.1 (by reference period) T03.02.2 (by country) T03.02.3 (by classification)
Leverage ratios	T03.03.1 (by reference period) T03.03.2 (by country) T03.03.3 (by classification)
Leverage ratio band	T03.04.1 (by reference period) T03.04.2 (by country) T03.04.3 (by classification)
Risk exposures composition	T03.05.1 (by reference period) T03.05.2 (by country) T03.05.3 (by classification)
IRB credit risk parameters by residence of the obligor	T03.06
4. Asset quality	
Asset quality: performing and non-performing exposures by instrument and counterparty	T04.01
Asset quality: non-performing loans and advances	T04.02.1 (by reference period) T04.02.2 (by country) T04.02.3 (by classification)
Asset quality: forbearance by instrument and counterparty	T04.03.1 (by reference period)
Asset quality: non-performing exposures and forbearance	T04.03.2 (by country) T04.03.3 (by classification)
Asset quality: fair value hierarchy	T04.04.1 (by reference period) T04.04.2 (by country) T04.04.3 (by classification)
5. Funding	
Loan-to-deposit ratio	T05.01.1 (by reference period) T05.01.2 (by country) T05.01.3 (by classification)
Deposits to total funding ratio	T05.02.1 (by reference period) T05.02.2 (by country) T05.02.3 (by classification)
6. Liquidity	
Liquidity coverage ratio	T06.01.1 (by reference period) T06.01.2 (by country) T06.01.3 (by classification)
Liquidity coverage ratio band	T06.02.1 (by reference period) T06.02.2 (by country) T06.02.3 (by classification)

1.3 Cut-off dates

For the first release of *Supervisory Banking Statistics* in November 2016, the tables are based on a data cut-off date of 15 October 2016. Resubmissions of data after the cut-off date are not taken into consideration for that publication. In the subsequent publications the cut-off date has been set to three months after the relevant reference date, e.g. 30 June for Q1 publications. As of the Q4 2018 publication, the cut-off dates have been slightly advanced as shown below.

Reference date	Cut-off date
Q4 2018: 31 December 2018	18 March 2019
Q1 2019: 31 March 2019	19 June 2019
Q2 2019: 30 June 2019	17 September 2019
Q3 2019: 30 September 2019	16 December 2019
Q4 2019: 31 December 2019	17 March 2020
Q1 2020: 31 March 2020	3 July 2020[7]
Q2 2020: 30 June 2020	15 September 2020
Q3 2020: 30 September 2020	16 December 2020
Q4 2020: 31 December 2020	18 March 2020
Q1 2021: 31 March 2021	16 June 2020
Q2 2021: 30 June 2021	15 September 2021

2 Classifications of banks

In addition to the breakdown by country, data in *Supervisory Banking Statistics* are presented broken down by entities' classifications. These classifications should not be interpreted as reflecting supervisory priorities; their purpose is to contribute to transparency regarding specific aspects of the data that are of potential interest to the general public.

The classifications are defined on the basis of the following objectives:

- to offer insights into the data, i.e. they are defined along dimensions which shed light on important aspects of banking activities (e.g. with respect to their risk or profitability);
- to facilitate the analysis of the data by distinguishing groups of institutions within the sample that may exhibit differing features (e.g. with respect to solvency, risk or profitability);
- to provide a simple, understandable and concisely expressed breakdown.

7 The supervisory data for Q1 2020 may be submitted with a delay of one month (see ECB communication of 15 April 2020)

The classifications distinguish between banks on the basis of activities, scale of operations and risk and are provided taking into consideration the approach to confidentiality as outlined in Section 4.

Business profile
Business model classification
Activities-based classification
Geographical diversification: focus of international exposures
Scale of operations
Size: the amount of total assets and the designation of the institution as being of systemic relevance
Risk profile
Overall risk and vulnerabilities based on the Supervisory Review and Evaluation Process (SREP) scores

The precise definitions of the variables employed for the classifications are given in Section 2.5.

2.1 Classifications based on business model

The business model classification allows for analysis of profitability, business model viability and structural changes in the banking system. In particular, it allows for peer group comparisons and analysis. The definition of the business model classifications is firstly based on the income generating activities, where we distinguish between (i) institutions, centred on traditional credit business and related fee generating activities, (ii) institutions that rely on non-lending related fee business such as asset management activities, M&A, securities business and trading, and (iii) institutions that are involved in lending as well as in non-lending related fee business. As a second step, the institutions are further distinguished according to the funding strategies, client base and their geographical focus. The eight categories are:

Asset managers and custodians: fee and commission business is dominant for these banks. Asset managers invest on their clients' behalf with asset management fees as the most important source of income. Private banking with a focus on wealth management is also counted towards the asset managers as long as they predominantly rely on fee based income. Custodians safeguard financial assets for their clients and custody fees are their primary source of income.

Corporate/wholesale lenders: lenders whose main clientele is the corporate and wholesale sector, both as clients and as source of funding.

Development/promotional lenders: state-owned banks which finance projects that governments deem of public utility. They are typically large and have a high share of wholesale lending from which they gain low margins.

Diversified lenders: have a balanced exposure to the retail and wholesale sector. In terms of funding, diversified lenders are often mainly financed by their clients (both retail and corporate), although sometimes complemented with significant wholesale funding.

Retail lenders and consumer credit lenders: focused on lending to retail clients, in many cases with a strong focus on residential real estate lending or consumer credit including car lending. While retail lenders are also funded through deposits, with a moderate reliance on wholesale funding, consumer credit lenders mainly rely on wholesale funding.

Small market lenders: operate in small EU economies, making them important, despite their small size. Lending to customers is mostly domestic, with small exposures to neighbouring countries.

Universal and investment banks: universal banks engage both in lending activities and non-lending business like insurance, non-lending fee and commission business such as asset management, securities related fees, and trading activities. Investment banks have a relatively low share of net interest income (mostly wholesale), rather having fees, commissions and trading activities as their main income source.

G-SIBs: stand out by their (i) G-SIB status as of the beginning of the respective year, (ii) size and far more international focus. While for some of them the main source of income is the lending business and related services, others are universal banks in that they have a far larger investment banking business, in particular trading.

2.2 Classifications based on geographical diversification

The location of international activities represents a significant distinguishing factor for banks, with implications for their risk exposure, diversification and profitability. For this reason, the geographical classification defines its categories on the basis of the relative majority of exposures, i.e. banks are grouped according to the regions where they have the relative majority of their international exposures.

Computations are based on FINREP template F 20.04, which has to be submitted by SIs pursuant to Articles 4 and 5(a)(4) of Commission Implementing Regulation (EU) No 680/2014. Whenever this template is not submitted by a bank, the latter is deemed to have significant domestic exposures on the basis of the ratio of non-domestic original exposures to total original exposures as reported in COREP template C 04.00.

Following the United Nations (Department of Economic and Social Affairs) classification,[8] complemented by Table 7 of ECB Guideline (ECB/2011/23)[9] and advice from ECB Legal Services, we distinguish between:

1. *banks with significant domestic exposures*: domestic exposures are more than 95% of the total amount of debt securities and loans and advances;

For institutions with international exposures of more than 5% of the total amount of debt securities and loans and advances:

2. *banks with largest non-domestic exposures to SSM*;
3. *banks with largest non-domestic exposures to non-SSM EEA countries*;
4. *banks with largest non-domestic exposures to non-EEA Europe*;
5. *banks with largest non-domestic exposures to Rest of the World*.

2.3 Size-based classification

Banks' size (expressed in terms of total assets) is strongly linked to their systemic importance and risk-taking. Using this classification, data users can examine whether, for instance, large banks present distinctive differences with respect to their capital, profitability and risk variables. Classification thresholds are defined in such a way as to foster comparability with the existing SSM and European Banking Authority (EBA) practices.

We distinguish between global systemically important banks (G-SIBs; as listed by the Financial Stability Board (FSB)), large banks, medium-sized banks (two sub-categories) and small banks. The EBA has defined an asset threshold of €200 billion for the identification of large institutions that are potentially systemically relevant.[10] Large banks have more than €200 billion assets, while G-SIBs are classified separately. Moreover, since one criterion for identifying banks as "significant" under SSM regulations is that their total assets should exceed €30 billion; this threshold has been used to distinguish "small banks" which enter the SI list via the other criteria[11]. Finally, medium-sized institutions include all those that fall between small and large and are clustered in two buckets separated by a €100 billion threshold.

8 See http://unstats.un.org/unsd/methods/m49/m49regin.htm. The classification is followed other than for Cyprus, which has been assigned to "southern Europe". Countries that according to the UN classification belong to "Western Europe" and "Eastern Europe" are grouped together under "central Europe".

9 Guideline of the European Central Bank of 9 December 2011 on the statistical reporting requirements of the European Central Bank in the field of external statistics.

10 https://www.eba.europa.eu/regulation-and-policy/own-funds/global-systemically-important-institutions-g-sii-.

11 Council Regulation (EU) No 1024/2013 conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions, Article 6(4).

In more detail, the five categories are as follows:

1. *banks with total assets of less than €30 billion*;
2. *banks with total assets between €30 billion and €100 billion*;
3. *banks with total assets between €100 billion and €200 billion*;
4. *banks with total assets of more than €200 billion that are not G-SIBs*;
5. *banks listed as G-SIBs by the FSB*.

2.4 Risk-based classification using SREP results

The Supervisory Review and Evaluation Process (SREP)[12] assessment provides an overview of banks' risk profiles and vulnerabilities based on four elements, namely:

- element 1: business model;
- element 2: governance and risk management;
- element 3: risks to capital;
- element 4: risk to liquidity and funding.

A score is derived as part of the SREP process, which examines the aforementioned bank-specific elements plus the external environment (peer comparisons and the macroeconomic environment). As the SSM's SREP methodology explains: "the overall SREP score reflects the supervisor's overall assessment of the viability of the institution: higher scores reflect an increased risk to the viability of the institution stemming from one or several features of its risk profile, including its business model, its internal governance framework, and individual risks to its solvency or liquidity position".

Institutions with SREP scores 1 and 2 are grouped together in the category "low risk" banks. Entities with scores 3 and 4 and non-rated banks are included in the category "medium, high risk and non-rated". Non-rated banks are those for which a score has not been assigned in a specific SREP cycle, owing for example to a recent change in significance, a merger or restructuring, etc. Classification as non-rated does not therefore necessarily indicate a high risk. Given that the SREP assessment generally takes place annually, each publication round uses the latest available SREP score.

[12] For more information on the SSM SREP methodology please refer to: https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm_srep_methodology_booklet.en.pdf

2.5 List of data points used in the classifications

Variable[13]	Definition	Template(s)
Geographical diversifications		
Debt securities	F0401_r0060_c0010 + F0402.1_r0050_c0010 + F0402.2_r0060_c0010 + F0403.1_r0050_c0010 + F0404.1_r0010_c0010 + F0406_r0060_c0010 + F0407_r0060_c0010 + F0408_r0060_c0010 + F0408_r0060_c0035 + F0409_r0010_c0050 + F0410_r0060_c0010	F 04.01, F 04.02.1, F 04.02.2, F 04.03.1, F 04.04.1 F 04.06, F 04.07 F 04.08, F 04.09 F 04.10
Loans and advances	F0401_r0120_c0010 + F0402.1_r0110_c0010 + F0402.2_r0120_c0010 + F0403.1_r0110_c0010 + F0404.1_r0070_c0010 + F0406_r0120_c0010 + F0407_r0120_c0010 + F0408_r0120_c0010 + F0408_r0120_c0035 + F0409_r0070_c0050 + F0410_r0120_c0010	F 04.01, F 04.02.1, F 04.02.2, F 04.03.1, F 04.04.1, F 04.06, F 04.07 F 04.08, F 04.09 F 04.10
Cash balances at central banks and other demand deposits (residence of counterparty)[14]	F2004_r0075_c0010	F 20.04
Debt securities (residence of counterparty)	F2004_r0080_c0010	F 20.04
Loans and advances (residence of counterparty)	F2004_r0140_c0010	F 20.04
Non-domestic original exposures	C0400_r0850_c0010	C 04.00
Total original exposures	C0400_r0860_c0010	C 04.00
Size		
Total assets	F0101_r0380_c0010	F 01.01

3 Calculation

3.1 Aggregation

Supervisory Banking Statistics tables contain both amounts and ratios of the variables reported. The ratios are calculated by aggregating separately the numerator and the denominator for the sample of banks, and then dividing them.

3.2 Probability of Default and Loss Given Default

Table T03.06

Probability of default (PD) reported in COREP C09.02 is computed as a weighted average of defaulted and non-defaulted exposures. Therefore, PDs for non-defaulted exposures can be derived as follows:

$$PD_{non-default} = \frac{Exposure_{total} * PD_{COREP} - Exposure_{default}}{Exposure_{non-default}}$$

13 Names of variables in the table follow those used in Sub-sections 2.1-2.6 to describe each classification.

14 With the introduction of the EBA reporting framework 3.0 as of the second quarter of 2021 the item "Cash balances at central banks and other demand deposits" is reported separately from "Loans and advances" in the template F20.04 and therefore is now included as a stand-alone data point in the Geographical diversifications list of data points.

In order to avoid computing implausible values, the aggregated weighted average PDs consider only the individual PDs for non-defaulted exposures that have a positive numerator.

Following the same reasoning, only positive Loss Given Defaults (LGDs) are considered when calculating the aggregated weighted average LGDs.

3.3 Adjustment of the income statement for banks with a different financial year-end

Tables T02.01.1/2/3 and T02.02.1/2/3

The vast majority of the entities in the sample have a financial year-end in December. For those which have a different financial year, a correction is needed for the income statement report (FINREP F 02.00), as it contains year-to-date data. In order to make the figures for such banks consistent and comparable with those for the other entities, whenever the financial year does not end on 31 December, a linear projection of the profit and loss figures is carried out.

For example, for an entity with its financial year-end in September 2015, the profit and loss figures reported in December 2015 represent only one quarter, so they are multiplied by four to be representative of the income of a complete financial year.

This approach can be expressed as follows:

$$data\ used\ for\ this\ quarter = data\ reported\ by\ the\ bank\ in\ this\ quarter * \frac{M_R}{M_R - M_F + 12 * Ind(M_F \geq M_R)}$$

where M_R is the month of the data reported and M_F the month of the financial year-end of the entity. For example, in the case of the figures for the fourth quarter of 2015 of an entity with a financial year-end in September, M_R is 12, M_F is 9 and hence the multiplier coefficient is 4. Note that when the financial year-end is December, this coefficient is always 1, i.e. no adjustment is made.

3.4 Annualisation of key performance indicators

Table T02.02.1/2/3

An annualisation is performed on three of the key performance indicators published (tables T02.02.1, T02.02.2 and T02.02.3), return on assets (RoA), return on equity (RoE) and cost of risk (CoR), for the first, second and third quarters since the return reported in these periods does not correspond to a full year of activity.

The values presented in the profit and loss tables (T02.01.1, T02.01.2 and T02.01.3) are year-to-date.

3.5 Total non-domestic unallocated exposures

Table T02.05.1/2/3

Institutions meeting the reporting requirements for sovereign exposures, for which the value reported for domestic exposures of non-derivative financial assets is more than 90% of the value reported for domestic and non-domestic exposures, report the information specified in the COREP template C33.00 at a total and domestic level only. For such instances, the difference between the total and domestic exposures is presented in the row “Total non-domestic unallocated exposure” in table T02.05.1/2/3.

3.6 Distribution

Tables T02.02.1, T03.01.1, T03.03.1, T04.02.1, T05.01.1 and T06.01.1

The boxplots, presented in the Supervisory Banking Statistics, show the distribution of the underlying ratios at institution level for each reference period. The whiskers display the 5th and 95th percentile and the median is displayed as a mark in the box. The box indicates the interquartile range and ranges from the first to the third quartile of the distribution. Outliers are not presented in the boxplots.

4 Applicable confidentiality regime

4.1 Identification of confidential figures

The data published in S*upervisory Banking Statistics* does not disclose confidential data, as required under the professional secrecy obligation established under Article 27(1) Council Regulation (EU) No 1024/2013, Article 37 of the Statute of the ESCB and of the ECB, and Article 53(1) of Directive 2013/36/EU of the European Parliament and of the Council.

The measures taken to avoid the identification of individual entities are described in ECB Guideline ECB/2016/1 concerning the extension of common rules and minimum standards to protect the confidentiality of the statistical information collected by the European Central Bank assisted by the national central banks to national competent authorities of participating Member States and to the European Central Bank in its supervisory functions: *“All appropriate measures shall be taken to ensure that confidential statistical information is arranged in such a way that any published data covers at least three economic agents. Where one or two economic agents make up a sufficiently large proportion of any observation to make them indirectly identifiable, published data shall be arranged in such a way as to prevent their indirect*

identification. These rules shall not apply if the reporting agents or the other legal persons, natural persons, entities or branches that can be identified have explicitly given their consent to disclosure".

Two main aspects of confidentiality are referred to in the above Guideline. The first refers to the number of institutions used to calculate each published data value, which should not be less than three. In addition, and irrespective of the number of institutions per data value, no institution should represent a very high percentage, i.e. more than 85%, of the aggregate value.

4.2 Treatment of confidential figures

For the tables published in *Supervisory Banking Statistics*, the content of any cell containing figures that are confidential as defined above is supressed. In addition, to avoid indirect derivation from the totals or sub-totals, the content of a third cell, arbitrarily selected, is also suppressed. All cells containing "C" indicate that the cell is suppressed under the confidentially regime.