



EUROPEAN CENTRAL BANK

EUROSYSTEM

The ESCB input into the EBA feasibility report under article 430c of the Capital Requirements Regulation (CRR 2)

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Executive summary

This report represents the input of the European System of Central Banks (ESCB) into the feasibility report of the European Banking Authority (EBA) on an integrated reporting system for the collection of statistical, resolution and prudential data from banks. The input was mandated by the Capital Requirements Regulation (CRR 2¹). The Supervisory Board of the Single Supervisory Mechanism (SSM) was consulted on this ESCB report.

The report closely follows Article 430c of the CRR 2 by focusing on four main elements of an integrated reporting system:

1. an overview of the quantity and scope of data;
2. the set-up of a joint committee;
3. the elements of a standard data dictionary;
4. the design of a central data collection point.

Throughout this report the institutional arrangements and independence of the ESCB set out in the Treaty on the Functioning of the European Union are considered as given.

The report addresses the concerns of both lawmakers and the banking industry about the high reporting burden imposed on banks. Currently, banks report data to one or more national authorities (depending on the banking group composition and the institutional set-up in a particular country) in the same country or across several countries. These national authorities in turn report data to one or more European authorities. The European authorities exchange some of the reported information among themselves, under formal agreements, and some with other national authorities. The banking industry argues that banks are required to fill in multiple templates in which data points partly overlap and definitions differ although they could be harmonised. Furthermore these templates have to be reported at different frequencies, with a different scope of consolidation and to different authorities.

This report identifies the **integration of reporting requirements for statistical, resolution and prudential reporting as the main priority to reduce the reporting burden**. The report also identifies **a common standard data dictionary² and a**

¹ CRR 2 is the abbreviation for Regulation (EU) 2019/876 of the European Parliament and of the Council of 20 May 2019 amending Regulation (EU) No 575/2013 as regards the leverage ratio, the net stable funding ratio, requirements for own funds and eligible liabilities, counterparty credit risk, market risk, exposures to central counterparties, exposures to collective investment undertakings, large exposures, reporting and disclosure requirements, and Regulation (EU) No 648/2012. Article 430c of the CRR 2 mandates the EBA to prepare a report on feasibility regarding the development of a consistent and integrated system for collecting statistical data, resolution data and prudential data taking into account the previous work of the ESCB regarding integrated data collection.

² In its simplest form a common data dictionary contains all the definitions of the concepts to be reported under the different legislation.

common data model³ as necessary prerequisites to achieve this. A joint committee needs to be established to lead this work. It should consist of the EBA, the ESCB and other relevant European and national authorities, as well as representatives of the banking industry when implementation aspects are discussed. The report recommends the swift development of an informal joint committee to help steer the main issues until a formal joint committee is legislated by the European Parliament and Council. Moreover, the report identifies **a central data collection point**⁴ as a medium-term objective, while enhanced **data sharing arrangements among authorities** can already be promoted by the joint committee in the short term.

This report proposes to achieve a fully integrated reporting framework for statistical, prudential and resolution reporting via two parallel intermediate steps:

- (i) the integration of the data reported for statistical purposes to the ESCB, and
- (ii) an integrated system for resolution and prudential reporting.

These two parallel work streams should converge as soon as possible, with the aim of achieving a fully-fledged integrated system in the medium term. Therefore the joint committee must ensure a strong level of mutual interaction, for example, through the development of a common standard data dictionary and common data model applying to the statistical, resolution and prudential reporting frameworks. The overall process requires ambitious and strong engagement for full integration from the outset, accompanied by a step-wise plan and a timeline that will inevitably be spread over many years.

Efforts on the integration of statistical requirements have already been under way for some time via the **ESCB's Integrated Reporting Framework (IReF)**⁵. This means a joint committee needs to be urgently created to ensure that work on the integration of resolution and prudential requirements can be synchronised with the IReF at a sufficiently early stage.

To streamline reporting requirements, the data reported in a future integrated reporting system are expected to be more granular than is currently the case. This is owing to the ability to serve different types of analyses from a single, granular dataset. The **degree of granularity**, in particular from the point of view of prudential and resolution reporting, will have to be considered further.

Finally, this report advocates a number of additional measures, such as **data standardisation** and the **digitalisation of reporting requirements**. Such measures would support integrated reporting and the international competitiveness of the European banking industry.

³ The common data model refers to the formal and structured organisation and representation of all data concepts, relations and quality rules.

⁴ The central data collection point refers to an entry point for banks, to which all data are sent and through which they can be accessed by the relevant authorities. The actual IT implementation of the central data collection point may be (virtually) decentralised.

⁵ See [Section 7.1 of the ECB Annual Report 2019](#).

1 Introduction

The European Parliament and Council expressed the need to reduce the administrative and financial burden on both reporting agents and authorities due to statistical, resolution and prudential reporting. In Article 430c of the CRR 2 the European Parliament and Council therefore mandated the EBA to prepare “a report on feasibility regarding the development of a consistent and integrated system for collecting statistical data, resolution data and prudential data and report its findings to the Commission by 28 June 2020.” Article 430c also stipulates that “When drafting the feasibility report, EBA shall involve competent authorities, as well as authorities that are responsible for deposit guarantee schemes, resolution and in particular the ESCB.” Article 430c also states that the EBA report shall take into account the previous work of the ESCB regarding integrated data collections.

The indicative estimate of ongoing annual reporting costs to the EU financial industry is over €4 billion⁶. With this rough magnitude in mind, it is understandable that the banking industry is in favour of more efficient reporting. In both a press release from October 2018⁷ and a publication in May 2019⁸, the European Banking Federation (EBF) underlined the need for an integrated and standardised EU framework for data reporting.⁹

It should be noted that, although reducing the burden is the main objective of this exercise and there is indeed significant scope for that, authorities typically request data to support important – and often urgent – domestic and international policy needs. This may be to monitor economic and financial developments and to monitor and, where necessary, manage the risks inherent to the international financial system and the environment.

This document represents the ESCB's contribution to the EBA feasibility study and has benefited from the views of the SSM Supervisory Board. The document closely follows Article 430c of the CRR 2 by focusing on those aspects of integrated reporting that, according to the legislator, merit particular attention:

- Section 2 provides an overview of the quantity and scope of the current data collected by the ESCB and the SSM;
- Section 3 discusses the joint committee that would be set up to develop and implement the integrated reporting system;

⁶ According to the European Commission staff working document entitled “[Fitness check of EU Supervisory Reporting Requirements](#)”.

⁷ See “[Data reporting: European banks underline need for an integrated and standardized EU framework](#)”.

⁸ See “[Boosting Europe: Building Trust and Supporting Growth in Europe. EBF recommendations for the EU 2019-2024 legislative cycle and beyond](#)”.

⁹ The reporting burden is also a result of (i) the many ad hoc national requests, often linked to on-site inspections, and (ii) the very frequent changes in reporting requirements, concerning not only the requested data but also technical requirements.

- Section 4 describes the elements of the standard data dictionary needed for integrated reporting;
- Section 5 sets out a possible design for a central data collection point.

In addition, some other aspects that are implied by Article 430c of the CRR 2 are dealt with in this report:

- Section 6 outlines a roadmap to achieve integrated reporting in the EU;
- Section 7 describes the desired granularity of the data collected;
- Section 8 contains other recommendations that would support integrated reporting.

The ESCB work on and experience with integrated data collections is reflected in the different sections of the report. This report limits itself to describing the business requirements of the integrated approach, while the technical and architectural points should be tackled at a later stage.

Although the proposals contained in this report may trigger several changes to existing secondary legislation or to certain cooperation arrangements, the ESCB institutional settings, embedded in the Treaty on the Functioning of the European Union (TFEU) and the Statute of the ESCB and of the ECB (the “Statute”), are taken as given.¹⁰ An integrated reporting system covering all data transmitted by banks to national and European authorities is expected to coexist with the independent legislative powers of the ECB (in the field of statistics) as well as the SSM (in the field of supervision).

¹⁰ Article 5 of the Statute provides the legal basis for the ECB, assisted by the NCBs, to collect the statistical information necessary for undertaking ESCB Treaty tasks. The independence granted to the ESCB and ECB under Article 130 TFEU enables the ECB to effectively pursue the objectives attributed to its tasks. A similar regime applies with regards to the exercise of tasks in the field of supervision. Whilst the collection of statistical information is not one of the ESCB tasks defined in Article 127 TFEU, as a supporting activity it is covered by the principle of central bank independence as well, to the extent it is necessary for the fulfilment of such tasks. In addition, in order to carry out the ESCB Treaty tasks, Article 132 TFEU and Article 34.1 of the Statute empower the ECB to make regulations to the extent necessary to define and implement the monetary policy of the Union and the tasks in the areas of minimum reserves requirements, clearing and payment systems and prudential supervision.

2 The quantity and scope of the data currently collected by the ESCB and the SSM

According to Article 430c of the CRR 2, the EBA report shall contain “an overview of the quantity and scope of the current data collected by the competent authorities in their jurisdiction and of its origins and granularity”. Although this report serves as a contribution by the ESCB to the EBA feasibility study, it includes additional information for the sake of completeness. It not only provides an overview of the statistical data collection of the ESCB, but also of the additional data collected by the SSM for prudential purposes, beyond the regular data collections regulated by the EBA.

Annex 1 contains an overview of the quantity and scope of the data currently collected by the ESCB. The overview includes data collected by national central banks (NCBs) from reporting agents under ECB statistical legal acts. It should be noted that in some cases NCBs collect additional data at national level in the context of ECB statistical legislation. The overview shows that the reporting deadlines and the frequencies at which the data are requested vary greatly between NCBs.

Annex 2 contains a summary of the recurrent data collections by the SSM in addition to the regular data collections under the EBA reporting framework.¹¹ Ad hoc requests are not taken into consideration. The maximum harmonisation principle already ensures a full harmonisation of almost all prudential reports relevant for Pillar I risks, such as credit risk, market risk and operational risk. With regard to data required for other i.e. Pillar II risks and other supervisory tasks, competent authorities may collect additional data from banks. Some of these data are either limited to a specific time period or due to be included in the EBA reporting framework in the medium term. However, some other data requests cannot be integrated in a global EBA framework, as they are specific to certain banks.¹² For this reason, ad hoc data requests are assumed to be outside the scope of the integrated framework envisaged by Article 430c of the CRR 2. At any rate, it is expected that a common data dictionary and improved data sharing among authorities will diminish the need for ad hoc data

¹¹ In addition to this overview, the EBA has already received a detailed list of supervisory data requests originating at the SSM, national and international levels, as well as a glossary with the description of the different data attributes.

¹² Such data are collected in accordance with Article 10 of the SSM Regulation (Council Regulation (EU) No 1024/2013 of 15 October 2013 conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions (OJ L 287, 29.10.2013)) and Article 141 of the SSM Framework Regulation (Regulation (EU) No 468/2014 of the European Central Bank of 16 April 2014 establishing the framework for cooperation within the Single Supervisory Mechanism between the European Central Bank and national competent authorities and with national designated authorities (OJ L 141, 14.5.2014)). This reporting aims to collect information that is (i) needed by the ECB for carrying out the tasks conferred upon it by the SSM Regulation and (ii) is not covered by existing EU law, including the scope of Commission Implementing Regulation (EU) No 680/2014 of 16 April 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 (OJ L 191, 28.6.2014) as defined in Article 1 of that Regulation.

requests. This is because they will create incentives for authorities to carefully check the data already collected in order to avoid duplicated data requests.

3 A joint committee for the development and implementation of the integrated reporting system

According to Article 430c of the CRR 2, the EBA report “*shall be based on an overall cost and benefit analysis including as a minimum: (...) (c) the establishment of a joint committee, including as a minimum EBA and the ESCB, for the development and implementation of the integrated reporting system (...)*”.

This section discusses which high-level principles might be applied to the design of such a joint committee. It does not enter into the more practical issues, such as which institution or institutions would chair/co-chair such a committee.

3.1 Main tasks of a joint committee

EU legislation on statistical, resolution and prudential reporting is issued under two legislative procedures and competencies: by the ESCB with regard to the collection of statistical information necessary to carry out its tasks under the Treaties, and by the European Parliament and Council with regard to resolution and prudential reporting. Besides this, the EBA develops the implementing technical reporting standards, which are then adopted by the European Commission. Both systems interact through formal consultations and informal coordination mechanisms.

A joint committee could structure and significantly enhance this interaction. It would not have legislative powers, but act as an advisory committee observing the Treaty provisions on the European institutions. Its key role would therefore be to issue advice on “*the development and implementation of the integrated reporting system*”.

More specifically, the joint committee should focus first of all on an integrated European data reporting model and a standard dictionary for statistical, resolution and prudential reporting. It should also coordinate the data sharing between authorities and promote data standardisations (see Section 7 for examples). The joint committee would advise on how user needs could be translated into integrated reporting requirements. These requirements should enhance data consistency, remove duplications and unlock impasses, such as the reconciliation of certain data definitions or data processing issues.¹³ The committee would also need to provide advice on how to implement these reporting requirements e.g. via clear definitions,¹⁴ common identifiers and other technical aspects.

¹³ Several aspects may need to be discussed such as the taxonomy for the data transmission, the format of reporting templates, the validation checks related to this transmission, and whether data are “pushed” by the reporting entities or “pulled” by the data recipient(s).

¹⁴ In recent meetings, the industry suggested envisaging machine-readable data definitions and transformation rules (see Section 7). This would require meeting several prerequisites. At the same time, this may prove highly cost-effective and implementing steps in this direction should be considered.

While the European authorities, under their mandates, independently prioritise their tasks and resource planning, the joint committee could also be consulted by the European authorities on actual and envisaged reporting requirements.

The joint committee would provide advice first on steering the IReF through the parallel integration of resolution and prudential reporting and then on designing the path to a fully integrated reporting system (see Section 5). It should also define what a central EU data collection point means in practice, taking into account the real needs of the banking industry, and then map out the path to achieving this. Ideally, the joint committee would be established very soon, as an immediate priority for the development of a holistic integrated reporting framework for banks. Although the committee would not be able to issue legislation itself, its advisory and consultative roles could be established in an EU legislative act, as was done for the Committee on Monetary, Financial and Balance of Payments statistics (CMFB).¹⁵

3.2 The composition of a joint committee

The following European authorities, which legislate and/or receive statistical, resolution and prudential data reported by banks, could be members of the joint committee: the ECB, the EBA, the Single Resolution Board (SRB) and the European Commission. Each EU Member State should be represented with the appropriate involvement of all the authorities concerned. International organisations such as the Financial Stability Board (FSB), Basel Committee on Banking Supervision (BCBS) or International Organization of Securities Commissions (IOSCO) could be granted observer status. The legislative basis for the European Systemic Risk Board (ESRB)¹⁶ and the CMFB has been proposed as a suitable prototype on which to base the structure of the joint committee. This model is based on a main body which ensures inclusivity in the discussion of topics and, in addition, a Steering Committee/Executive Body tasked with steering the decision-making and ensuring efficiency in the process.

The cooperation with the European banking industry on integrated reporting could be set up by dividing the joint committee into two sub-committees. One sub-committee would be tasked with issuing advice on the reporting requirements and how they should be specified. It would consist only of the above-mentioned European and national authorities. Another sub-committee would be tasked with issuing advice on the most efficient implementation of reporting requirements in banks' and authorities' systems. Given the strong synergies with the work already done on the Banks' Integrated Reporting Dictionary (BIRD),¹⁷ this sub-committee would be expected to

¹⁵ Council Decision of 13 November 2006 establishing a Committee on monetary, financial and balance of payments statistics (2006/856/EC), (OJ L 332, 30.11.2006).

¹⁶ Regulation (EU) No 1092/2010 of the European Parliament and of the Council of 24 November 2010 on European Union macro-prudential oversight of the financial system and establishing a European Systemic Risk Board, in particular Articles 6 and 11, (OJ L331, 15.12.2010, p. 1).

¹⁷ The contents of the BIRD are based on a harmonised data model that specifies the data to be extracted from the banks' internal IT systems to generate the reports required by authorities. In addition, transformation rules are designed to apply to the data extracted from the banks' internal IT systems in order to produce regulatory reports. The BIRD consists of the Input Layer – i.e. the definitions of the data to be extracted from the banks' internal IT systems – and the transformation rules to generate the output data required by authorities.

cooperate closely with the BIRD Steering Group. The second sub-committee could consist of both the authorities and the banking industry. An important model for the cooperation in this chamber would be the work done on the BIRD including the ECB Single Data Dictionary (SDD). It could also address the digitalisation of the reporting requirements and data standardisation (see Section 7). Expert groups could report to this chamber, as necessary. Furthermore, these groups could liaise with the financial services industry to seek expert input on the most efficient IT solutions.¹⁸

The advantage of a two chamber set-up would be avoiding any undue influence, as the banking industry would not be issuing advice on the reporting requirements addressed to it.

¹⁸ Subject to compliance with procurement and competition law constraints concerning collaboration involving competitors and possible future suppliers.

4 A standard data dictionary

The definition and implementation of a standard data dictionary is a necessary precondition and thus one of the main pillars of an integrated reporting system. This is acknowledged also by the legislator, as Article 430c of the CRR 2 specifies that the EBA report should “*be based on an overall cost and benefit analysis including as a minimum: (...) (b) the establishment of a standard dictionary of the data to be collected, in order to increase the convergence of reporting requirements as regards regular reporting obligations, and to avoid unnecessary queries*”.

A common data dictionary would contain all definitions of the concepts to be reported in different European (and national) legislations. A broader concept of “data dictionary” includes also other elements, such as transformation rules, validation rules for the final output data, as well as the data model in which the dictionary is represented (e.g. the EBA Data Point Model¹⁹ or the SMCube Information model²⁰). The transformation rules can be used to explain the relationship between the concepts in the data dictionary or the transformations necessary to build derived concepts from the more granular elements of the dictionary.

A single dictionary of concepts and definitions for statistical, resolution and prudential purposes is crucial at the level of both the reporting agents and the authorities to enable consistent validation and compilation. Users would also benefit from having datasets that follow the same standards. A common data dictionary and common data model should include all information deemed necessary by the authorities involved, according to the accounting standards and at the entity levels required. Therefore, it is important to continue the substantial work that has been carried out by the Eurosystem on building up and maintaining a single data dictionary.

Moreover, the single dictionary has the potential to achieve two goals of data integration:

- Reporting integration (or information requirements’ integration), i.e. the development of a well-designed system of surveys – not necessarily just a single huge survey – in which data are collected only once, at the level of granularity suitable to serve the information requirements of different authorities.
- Methodological and semantic integration, i.e. common syntax, concepts and definitions across different surveys and domains, covering the statistical, resolution and the prudential ones. This only requires a common data dictionary, which contains information (i.e. metadata) about the content and format of each data and each variable. In this way conceptual integration of data from multiple domains is achieved, using a common metadata standard, even if the reporting (i.e. information requirements) is not fully integrated.

¹⁹ See [EBA Data Point Model](#).

²⁰ See [SMCube Information Model](#).

Another important implication of establishing a common data dictionary is that it can also be used to satisfy ad hoc data needs, even though ad hoc collections are not the focus of the integrated system. Moreover, the number of ad hoc requests is expected to fall once a common data dictionary is in place as authorities may find in the data dictionary existing definitions that satisfy their additional needs. Furthermore, it is envisaged that the new integrated reporting framework would be more granular, at least for statistical data, than is currently the case. It would seek to collect data at the lowest common level for at least some of the datasets covered, which should also help to reduce future ad hoc requests.

The Eurosystem has already started to work on the SDD and the BIRD. In particular, the BIRD, which combines the definitions of the statistical, resolution and prudential reporting requirements under several EU laws, as well as transformation rules for deriving these data from banks' internal systems, looks to be a promising avenue towards having one broad data dictionary for statistical, resolution and prudential reporting.

The value added of a common data dictionary, containing the definitions of the reporting requirements from authorities, would be even greater if it was developed and maintained hand-in-hand with the BIRD, which defines the transformation rules to be applied to banks' input data, before the data are transmitted to the authorities. Indeed, both projects would provide crucial support to the banks' reporting tasks by logically and methodologically bridging the gap between the authorities' reporting requirements and the reporting agents' internal databases.

It is important to stress that the BIRD is a collaborative project between authorities and the banking industry. As such, the BIRD does not constitute an official interpretation of any reporting requirement; it is not binding and does not affect, amend or replace the responsibilities of reporting agents towards the authorities to which they provide data. Reporting agents remain fully responsible for organising their internal reporting systems and ensuring the accuracy of their reports to the authorities. For this reason, banks are free to partially amend the BIRD in order to meet local specificities²¹.

As a consequence, even if the BIRD is the logical input extension of the common data dictionary, with which a methodological connection would be highly desirable, the BIRD should not be considered part of the common data dictionary for the output data as defined in this report.

²¹ See also the [BIRD website](#).

5 A central data collection point

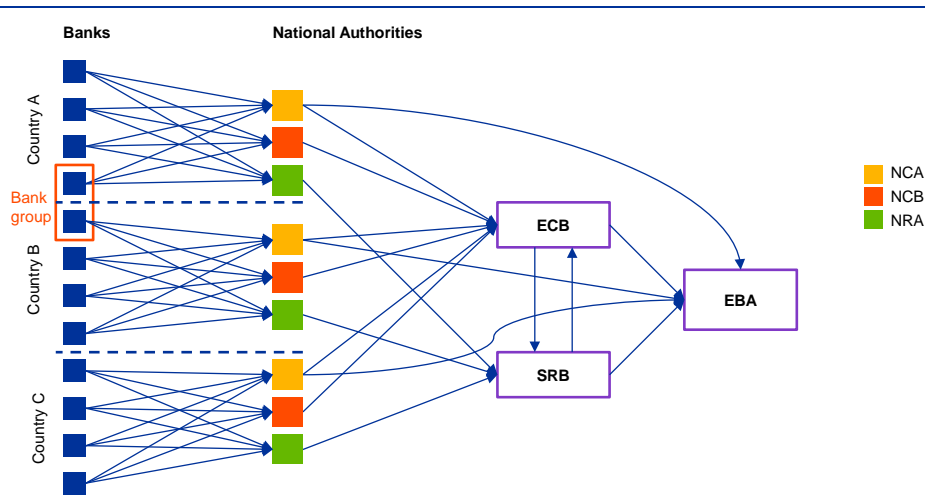
Currently, banks report data to one or more national authorities (depending on the banking group composition and the institutional set-up in a particular country) in the same country or across several countries. These national authorities in turn report data to one or more European authorities. Eventually, the latter authorities exchange some of the reported information among themselves, in accordance with formal agreements or a memorandum of understanding.

Banks argue that they are required to fill in multiple templates for different authorities in which data point definitions partly overlap and the reporting frequencies and scope of consolidation differ. Also, the templates may contain similar but slightly different definitions of the same concept and unspecified aggregation rules. The issue is particularly pronounced for cross-border banking groups that have developed a centralised system for producing their reports. They cannot report all data for all the banks in the group to the authority where it is headquartered, but instead their banking subsidiaries have to report to the relevant national authorities of the country where they reside.

The data exchange between the ESCB, the SSM and the Single Resolution Mechanism (SRM) is also cumbersome. The resolution and prudential data follow separate sequential processes through the national resolution authorities (NRAs) and the national competent authorities (NCAs) to the SRB and ECB, respectively, and then onto the EBA. Hence, resolution and prudential data follow different data flows and different data quality assessments, which make their reconciliation difficult. Furthermore, some prudential data are exempted from the sequential process and are therefore reported by NCAs straight to the EBA. The statistical data are also collected in a decentralised manner via NCBs and have similar limitations in terms of reconciliation with resolution and prudential data. The exchange of data between the ESCB, SRM and SSM is cumbersome in practice due to IT issues, data model inconsistencies, and resource issues, including differences in the skill sets of the staff involved. By contrast, some countries have centralised the collection of statistical, resolution and prudential data, achieving significant efficiency gains.

The current situation, which has partly come about as a quick reaction to the financial crisis, is visualised in Figure 1.

Figure 1
Current data reporting flows



Notes: The figure shows only the situation in the euro/SSM area, although non-SSM authorities also report directly to the EBA. In some countries banks may report to only one or two national authorities. In turn, such authorities exchange the collected data among themselves.

To address this issue, the European Parliament and Council would like the EBA feasibility report to assess “(d) the feasibility and possible design of a central data collection point for the integrated reporting system, including requirements to ensure strict confidentiality of the data collected, strong authentication and management of access rights to the system and cybersecurity, which:

- (i) contains a central data register with all statistical data, resolution data and prudential data in the necessary granularity and frequency for the particular institution and is updated at necessary intervals;
- (ii) serves as a point of contact for the competent authorities, where they receive, process and pool all data queries, where queries can be matched with existing collected reported data and which allows the competent authorities quick access to the requested information;
- (iii) provides additional support to the competent authorities for the transmission of data queries to the institutions and enters the requested data into the central data register;
- (iv) holds a coordinating role for the exchange of information and data between competent authorities; and
- (v) takes into account the proceedings and processes of competent authorities and transfers them into a standardised system.”

This section sets out how the central data collection point might be designed in terms of a logical model in order to meet the above stipulations from Article 430c of the CRR 2. The implementation of a central data collection point requires thorough discussion and consideration at a later stage due to the large number of technical and organisational options. This section does not cover aspects related to “requirements to ensure strict confidentiality of the data collected, strong authentication and

management of access rights to the system and cybersecurity'. Nor does this section address various IT architectures consistent with the logical model. These implementation aspects will have to be considered once a logical model for integrated reporting has been chosen, but in itself they do not represent a barrier to any option.

Before describing the logical model it is worth pointing out that the biggest reduction in the reporting burden is not so much achieved by changing how the data are transmitted to authorities. Rather, what is particularly costly is slight differences in data definitions or aggregates requiring the industry to run heavy processes several times with different dimensions or values. Genuine cost reduction can instead be reached by (i) carefully defining reporting requirements through an integrated data reporting model and a common data dictionary for statistical, resolution and prudential data and by (ii) efficient data sharing between authorities: the data should be made accessible immediately after submission by the reporting agents, by means of a well-established system of data sharing and solid governance rules with respect to the data quality management and resubmission procedures. The definition of an integrated data reporting model and a common data dictionary together with data sharing between authorities should be the highest priority on the road to integrated reporting.

5.1 Principles

The logical model of the central data collection point is based on the following principles:

Principle 1: Banks to report data only once

The objective of Article 430c is to reduce the reporting burden of banks in the EU, as explained in recital 69 to the CRR 2: *“By centralising and harmonising the European reporting landscape in such a way, the goal is to prevent multiple requests for similar or identical data from different authorities and thereby to significantly reduce the administrative and financial burden, both for the competent authorities and for the institutions.”* By avoiding duplicated data requests, the expectation of the banking industry is that *“each data point and each template should be reported once”*²².

Principle 2: Data sharing between authorities

To ensure that data are reported only once, authorities will need to share data with each other and to have immediate and simultaneous access to the data to which they are legally entitled in line with the applicable legal framework, as also pointed out by the banking industry.²³

Principle 3: A consistent approach across countries

To ensure a level playing field and in particular to reduce the reporting burden for banking groups operating with multiple subsidiaries and branches in different

²² See the press release of the European Banking Federation (EBF) on 30.10.2018 entitled [“Data reporting: European banks underline need for an integrated and standardized EU framework”](#).

²³ See above the EBF press release.

countries, the same data reporting requirements should be imposed on the foreign subsidiaries and branches, with the same reporting frequencies and deadlines, and in the same data language.

Principle 4: A decentralised approach within a common set-up and governance

Due to the institutional set-up under the EU Treaties, the national authorities should maintain – within the given standards of common governance – a shared responsibility for the processing, data quality assurance and assessment of data collected via the central data collection point.

5.2 Design of a central data collection point

The principles identified in Section 5.1 imply that a central data collection point should satisfy the following business requirements:

- Banks report statistical, resolution and prudential data directly to the central data collection point, which should be seen by the reporting entities as a single logical entry point with common governance and a common budget.²⁴
- While the scope of banks' reports should be as broad as possible, ad hoc data collections (i.e. for a limited number of entities and non-recurrent) and specific national requests may be undertaken outside the central data collection point, in order to allow for flexibility.
- The transmission to the central data collection point will be based on a common standard data dictionary and common data model covering all datasets.
- The central data collection point will be able to receive both granular data, including loan-by-loan data (e.g. for compiling statistics) and aggregated data (e.g. regulatory capital and liquidity ratios for prudential purposes).
- Cross-border groups will be allowed to bundle and report data for foreign subsidiaries/branches from the parent company where banks prefer to report only once via the parent. However, the central data collection point shall be able to receive data from any subsidiary/branch of the group.
- Each data point would be reported only once to the central data collection point.²⁵
- The European authorities (ECB, SRB, EBA) and the national ones (NCBs, NRAs, NCAs) will be able to pull the data to which they have been granted access from the central data collection point. All stakeholders will have immediate and simultaneous access to data.
- The central data collection point has to be supported by facilities tailored to the data quality assessment and data sharing. The division of tasks between

²⁴ The various possible IT architectures for a logical central data collection point are not discussed in this report and its architecture may be decentralised.

²⁵ See the caveats for supervisory data discussed in Section 7.

European and national authorities will be agreed beforehand and be subject to robust governance. See Annex 3 for a non-exhaustive list of functions to be shared.

- In sum, the central data collection point includes a central data register, serves as a point of contact for the competent authorities, provides support to the authorities for the transmission of data queries to the banks, exchanges data between the authorities and transfers the authorities' processes to a standard system in line with Article 430c (2.d).

The actual IT implementation of the central data collection point may be virtually decentralised even if financed out of a common budget, also to ensure that there is no single point of failure and taking into account the preferences of reporting agents. In particular, the central data collection point may be filled technically via a single central channel or via different virtually decentralised channels, provided that banks see it as a single point of entry. Actually, for reporting agents this aspect will be of minor importance provided that the system is harmonised in all aspects and data are reported only once. A robust cost benefit analysis should precede this initiative.

6 A roadmap towards integration

One implementation option is a “big bang” development with simultaneous implementation of an integrated data reporting model and a central data collection point. However, it appears more realistic to achieve step-by-step progress in reducing the reporting burden by starting with two coordinated processes in parallel for a transition period: (i) the integrated collection of statistical data and (ii) the integrated collection of resolution and prudential data. The two parallel work streams need to converge as soon as feasible with the aim of achieving a fully-fledged integrated system in the medium term. One of the milestones will be to develop a common standard data dictionary and a common data model applicable to both work streams. Other necessary milestones include an enhanced framework for sharing data among authorities and a shared single business register of entities, such as the one created by the ESCB, allowing an assessment of who reports what, both for individual entities and for cross-border groups.

The overall process requires an ambitious and strong push for full integration from the very beginning, accompanied by a step-by-step plan and a timeline which will inevitably be spread over many years.

Assuming the EU legislators decide to implement an integrated data reporting model and the central data collection point, this report advocates developing a roadmap for the gradual achievement of this goal. Since the integration process requires joint discussions between many stakeholders, a detailed work plan should be proposed and implemented by the joint committee. The formal establishment of the joint committee may take a long time. However, authorities have the option to speed up the process, as they may decide to informally establish a joint committee sooner.

The ESCB is already working on an integrated system for collecting statistical data via the IReF, which aims to integrate the ESCB’s statistical data requirements for banks into a unique and standardised reporting framework that would be applicable across the euro area and might also be adopted by non-euro area NCBs. The banking industry expects the IReF to reduce redundancies, minimise the reporting burden for collecting statistical information and enhance data quality. The data requested from the banking industry will be as granular as possible in order to satisfy multiple statistical needs via one unique data request (the IReF collection layer). Each data point will be reported only once in the IReF collection layer. All authorities will be subject to common governance and will be using the same data standards.

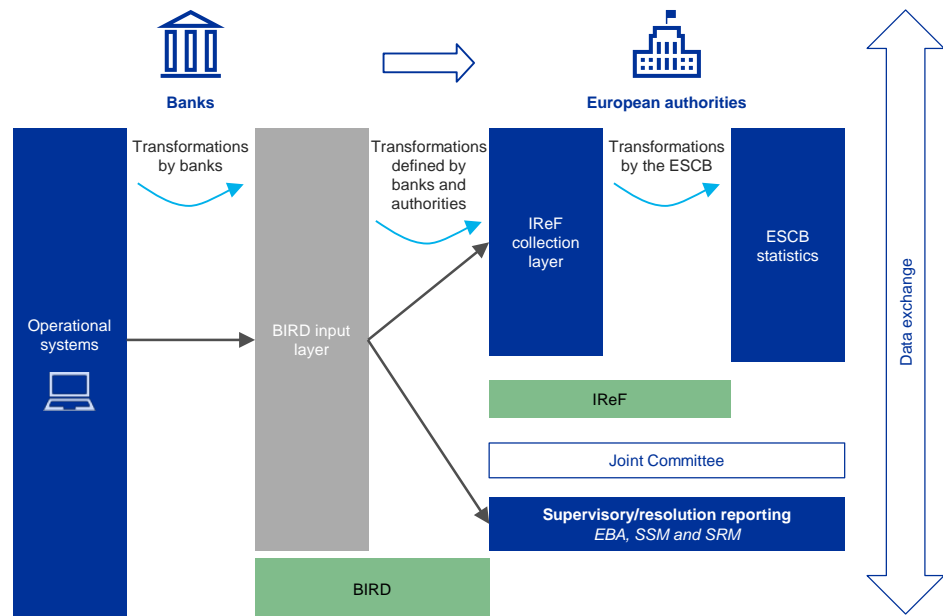
Likewise, the authorities responsible for resolution and prudential data could at the same time achieve integration for their data collection and data sharing. For instance, such authorities could integrate their secondary reporting data flows and develop a data hub to facilitate banks’ quantitative Pillar 3 disclosures.

In this set-up, all parties will work together in the above-mentioned joint committee to coordinate the integrated statistical data collection with the integrated resolution and prudential ones, cooperate on the further development of BIRD, and prepare the data

sharing between the ESCB and the EBA and SRB. While this intermediate step would make it possible to significantly reduce the reporting burden for banks, the medium-term target of a central data collection point could be enshrined in the mandate of the joint committee.

Once a common standard data dictionary and a common data model have been defined and implemented during the intermediate step, it will be much easier to move to a single integrated reporting layer for all data requested by authorities from the banking sector. This will allow all parties involved to benefit from a reduced reporting burden already during the transition period.

Figure 2
Domain-specific integration as an intermediate step.



Note: Figure 2 reflects the ESCB strategy for collecting data from banks published in Section 7.1 of the ECB Annual Report 2019.

7 Granularity of the data

The number of data points to be reported by reporting agents is one of the dimensions on which the reporting burden can be assessed. Others include the coexistence of similar but different definitions and concepts across the various reporting frameworks, as well as the aggregation/consolidation efforts, which also contribute materially to overall reporting costs. The ESCB understands that the banking industry would be open to providing more granular data in future if relieved from providing aggregations other than the key prudential data that need to be reported on an aggregated basis. If there is an integrated reporting framework, it will have to be decided how granular the data transmitted need to be.

For statistical information, the degree of granularity will be decided during the IReF process. Where the compilation of aggregates will be done by authorities, a single data point will be reported only once and could be used for several purposes.

For resolution and prudential data, this task seems more challenging considering the variety and complexity of the prudential concepts to be considered. Indeed, while some aggregates could certainly be derived from granular data, a material part of the data needed by supervisors rests on modelling and other assumptions which are bank-specific. These assumptions therefore cannot be inferred in a cost effective way from instrument-based reporting. In addition, the consolidation processes undertaken by the banks are often complex and a material amount of additional information and effort would be required to derive the relevant consolidated data from the more granular data.

Nevertheless, ECB Banking Supervision supports the various ESCB and EBA initiatives exploring the possibility of deriving some aggregates collected in the Implementing Technical Standards (ITS) on supervisory reporting regulations from granular data. The derived aggregates will have to complement aggregates reported by the banks. Moreover, the final responsibility for the correctness and reliability of the information used by supervisors should remain with the banks. Such an approach does not yet seem feasible on the basis of the granular data currently being collected (e.g. AnaCredit data, phase 1, are insufficient to generate either COREP or FINREP reports). However, its feasibility should be investigated further in close cooperation with the responsible standard-setters. In addition, a thorough cost-benefit and legal assessment should be carried out before concluding on the relevance of this alternative approach.

8 Other recommendations

The digital revolution is allowing banks to adapt their reporting systems. In the future the transmission and reception of data is expected to require less and less human intervention. This means that once reporting requirements and quality checks are defined in machine executable language, automated systems will take care of sending, checking, integrating and disseminating data. This automation will require a number of measures that would also be conducive to integrated reporting. Although not addressed in Article 430c of the CRR 2, the following aspects are of high importance and should be considered by the joint committee:

- Using identifiers in reporting (e.g. LEI, ISIN, UPI, UTI, and other ISO data standards).
- Translating/digitalising legal requirements into machine executable language (RegTech). This means that reporting requirements are defined in such a way they can actually be derived from the BIRD input layer.
- Harmonising reporting transmission formats, e.g. choosing between XBRL and SDMX.

Annex 1: Overview of the quantity and scope of the current data collected from the banking system by the ESCB

Dataset name	Description	Frequency of the reporting	Timeliness of the reporting (in workings days (wd)/ calendar days (cd))		Number of data points / dimensions and attributes which are collected** average estimation	Total number of credit institutions	Number of changes of regulation in the last five years			Granularity	Derogations	Revision policy***
			min	max			mi n	ma x	averag e			
Balance sheet items	These statistics comprise information from the balance sheets of credit institutions, money market funds, euro area national central banks and the ECB, which together make up the monetary financial institutions (MFI) sector.	monthly, quarterly, semi-annual, annual	t+3 wd	t+25 wd	6,500	> 3,000	0	5	2	aggregated, security-by-security, instrument-by-instrument	For some countries, small credit institutions (with a balance sheet of less than €200 million) report only on a quarterly basis. Banking groups might report monthly and the data of member banks can be provided on a voluntary basis. Derogations for these countries are reviewed annually. Moreover, for some countries the reporting only covers domestic entities, while in other cases the reporting covers credit institutions with branches abroad.	Different revision policies are applied. For example, for some countries no formal revision policy exists and reporting agents can send revisions at any time, if necessary. There are also ad hoc revisions if an error is detected or the accounting principles are changed. In some countries, there is a regular revision (i.e. monthly) policy.
Securities holdings statistics	The Securities Holdings Statistics (SHS), collected on a security-by-security basis, provide information on securities held by selected categories of euro area investors, broken down by instrument type, issuer country and further classifications.	monthly, quarterly	t+6 wd	t+45 cd	80	SHS Group (home approach applied): all SSM banks (including data from subsidiaries located abroad, reported via the	0	3	1.5	security-by-security, investor- by-investor (excl. households) for custodians; entity-by-entity (for SHS Group)	Some NCBs apply the derogation in accordance with the SHS regulation, i.e. to cover at least 95% of MFIs' total securities holdings. Some NCBs do not apply the derogations.	Different revision policies are applied. Revisions can be made on an ongoing basis or when an error is detected. Normally, revisions made to data from the previous month/quarter are sent with the regular transmission.

Dataset name	Description	Frequency of the reporting	Timeliness of the reporting (in workings days (wd)/ calendar days (cd))		Number of data points / dimensions and attributes which are collected**	Total number of credit institutions	Number of changes of regulation in the last five years			Granularity	Derogations	Revision policy***
			min	max			average estimation	min	max			
Targeted longer-term refinancing operations	The targeted longer-term refinancing operations (TLTROs) are Eurosystem operations that provide financing to credit institutions.	quarterly	-	-	56	-	2	7	4.5	aggregated	-	Revisions have to be submitted if there is a material impact on interest rate variables.
MFI interest rate statistics	Bank interest rates consist of data on interest rates that resident monetary financial institutions (MFIs) except central banks and money market funds apply to the euro-denominated deposits of, and loans to, households and non-financial corporations resident in the euro area, as well as data on the volumes involved.	monthly, quarterly, annual	t+7 wd	t+20 wd	600	> 3,000	0	5	1.5	aggregated	-	-
Structural financial indicators for payments	This dataset includes detailed breakdowns related to institutions offering payment services. The data comprise the number of institutions and offices as well as the number of different types of accounts held by payment service users.	quarterly, annual	t+20 wd	t+40 wd	100	> 1,000	0	1	0.5	aggregated	-	-
Payments and settlement systems statistics	This section contains statistics on payment instructions processed by TARGET and other euro large-value interbank funds transfer systems.	monthly, quarterly, semi-annual, annual	t+7 wd	t+151 cd	1,500	> 3,000	0	3	1.5	aggregated; in some countries numbers and values of payments are collected at a more detailed level than required by the Payment Statistics Regulation	In some countries derogations are granted in accordance with the Payments Statistics Regulation, while in others, no derogations are applied.	Revision policies vary across countries. In some countries revisions are made to previous periods (provided with the regular transmission), while in others there are no limits as to how far back in time revisions can be made. In general, exceptional

Dataset name	Description	Frequency of the reporting	Timeliness of the reporting (in workings days (wd)/ calendar days (cd))		Number of data points / dimensions and attributes which are collected**	Total number of credit institutions	Number of changes of regulation in the last five years			Granularity	Derogations	Revision policy***
			min	max			average estimation	mi	ma			
							n	x	e			
Balance sheet items statistics (tables 2 to 5 of the blue book)	Information on settlement media (currency in circulation, overnight deposits) used in the economy.	monthly, quarterly, semi-annual, annual	t+15 wd	t+30 wd	300	All institutions in the EU28	0	5	2	aggregated, individual transaction basis	-	-
Analytical credit and credit risk data	AnaCredit is a dataset containing detailed information on individual bank loans in the euro area, harmonised across all Member States.	monthly, quarterly	t+6 wd	t+35 wd	120	> 4,000	0	7	3	loan-by-loan, entity-by-entity, counterparty-by-counterparty, protection-by-protection	In some countries derogations are granted in accordance with the ECB Regulation on AnaCredit, while in others, no derogations are applied.	Varies across countries; revisions are received on a continuous basis.
Money market statistical reporting	The overall money market statistical reporting (MMSR) dataset is based on transaction-by-transaction data from a sample of EU reporting agents covering the secured, unsecured, foreign exchange swap and euro overnight index swap money market segments.	daily	t+1 wd	-	50	around 100	0	1.5	3	transaction-by-transaction	-	Varies across countries; revision policies may not exist or are very systematic.
Balance of payments and international investment position (BPM6)	The euro area balance of payments summarises all the transactions between euro area residents and non-residents, on a monthly and quarterly basis.	monthly, quarterly	t+10 wd	t+165 wd	400	All EA resident institutions	0	1	0.5	aggregated, loan-by-loan	Exemption for banks which have no links with foreign entities.	Approaches vary: revisions to quarterly data with reference to the previous quarter are sent together with the data for the most recent quarter (regular data transmission). Revisions to quarterly data of the three previous quarters are received together with the regular transmission of the last quarter of the year. For some countries there

Dataset name	Description	Frequency of the reporting	Timeliness of the reporting (in workdays (wd)/calendar days (cd))		Number of data points / dimensions and attributes which are collected**	Total number of credit institutions	Number of changes of regulation in the last five years			Granularity	Derogations	Revision policy***
			min	max			average estimation	min	max			
Minimum reserves	Euro area banks are required to hold minimum reserves in their current accounts at their national central bank. A bank's minimum reserve requirement is set for six-week maintenance periods. The level of reserves is calculated on the basis of the bank's balance sheet before the start of the maintenance period. The annual and quarterly data on minimum reserve requirements refer to averages of the last maintenance period of the year/quarter.	monthly, reserve maintenance period	t+7 wd	t+10 wd	100	-	0	1	0.5	aggregated	Some countries report through the balance sheet statistics.	- are no regular revisions.
Financial accounts	Quarterly financial accounts by institutional sector, including both national datasets and euro area aggregates, in compliance with the principles and definitions of the ESA 2010.	secondary statistics										
Securities issues statistics	Security-by-security information on the debt securities issued.	monthly	t+4 wd	t+10 wd	30	-	0	2	1	security-by-security; entity-by-entity	-	-
Consolidated banking statistics***	These data contain information on the aggregate consolidated profitability, balance sheets, asset quality, liquidity and solvency of EU banks, and refer to all EU Member States.	quarterly, monthly	t+6 wd	t+94 cd	30	> 2,000	0	2	1	aggregated	-	Revised data may be submitted at any time during a quarter.

Notes: * Since feedback from some NCBs has not been received, it is not reflected in the analysis.

** For data collected on a granular basis the information has been filled in with the number of attributes.

*** Countries are encouraged to follow the harmonised European revision policy (HERP) endorsed by the CMFB for balance of payments and international investment position statistics and national accounts statistics, as a minimum.

**** Consolidated banking statistics data can to a large extent be compiled using existing supervisory data, but additional data points may need to be collected from reporting agents.

Annex 2: ECB-led recurring horizontal requests

Owner (ECB business area)	Data collection	Risk area	Frequency
DG/MS IV-MSD	Short Term Exercise (STE) for SREP	Multiple risks	Quarterly
DG/MS IV-CRM	Liquidity exercise template	Liquidity risk	Annually
DG/MS IV-CRM	Recovery plan standardised templates	Other	Annually
DG/MS IV-RIA	Cyber incident reporting	Operational risk	Other
DG/MS II	NPE strategy data collection	Credit risk	Annually
DG/MS IV-COI	Horizontal comparison of shipping portfolios	Credit risk	Bi-annually
DG/MS IV-RIA	Profitability forecast exercise	Business model	Annually
DG/MS I	Leverage finance dashboard	Credit risk	Quarterly
DG/MS IV-RIA	Data request for SREP stress test	Multiple risks	Biennially
DG/MS IV-INM	Regulatory back-testing – market risk	Market risk	Quarterly
DG/MS IV-INM	Reporting of validation results – credit risk	Credit risk	Annually
DG/MS IV-INM	Reporting of validation results – operational risk	Operational risk	Annually
DG/MS IV-COI	IT risk questionnaire	Operational risk	Annually
DG/MS IV-RIA	ECB FINREP Regulation (EU) 2015/534 ²⁶	Financial statements	Quarterly
DG/F	Supervisory fees	Other	Annually

²⁶ Regulation (EU) 2015/34 of the European Central Bank of 17 March 2015 on reporting of supervisory financial information (ECB/2015/13) (OJ L 86, 31.3.2015, p. 13).

Annex 3: List of functions

The central data collection point should have common elements and common governance. Before and after the data are transmitted to the central collection point, there are a number of functions that need to be set up. While the collaboration between national and European authorities needs to be agreed beforehand, the following list of tasks need to be allocated among stakeholders. The list is not exhaustive.

Task	Data		
	Preparation	Collection	Compilation
Define and manage the single dictionary	X	X	
Choose and maintain the format for reception	X		
Determine how to include the new attributes/data that have to be reported (new requests will probably need prior agreement by a different body/committee)	X		
Agree on thresholds and derogations	X		
Establish and manage the policy for data accuracy and revision	X	X	X
Establish access rights	X	X	X
Establish and manage the “stable data” (business cards/master data) on entities, groups of reporting entities, groups of observed agents, and steer and operate the rules for their reporting and the assessment of their compliance (in RIAD)	X	X	X
Establish the governance of flows – the calendar of flows between the reporting agents, the reception and the compilation layer	X	X	X
Define, maintain and perform completeness checks and/or reconciliation to anchor values – carrying out controls on the data that have to be reported by each entity and checking that it has been done correctly	X	X	X
Define and maintain validation rules	X	X	X ²⁷
Check the results of the evaluation of validation rules		X	X
Define, maintain and perform plausibility checks	X	X	X ²⁸
Analyse the revisions sent by entities and follow-up with an escalation process		X	X ²⁹
Contact the reporting agents (banks, insurance, IFs, etc.)	X	X	X
Organise exchange of communications between authorities	X	X	
Provide IT/business support to the reporting agents and system users		X	X
Monitor application of confidentiality regime for authorities		X	
Assess technical/business questions sent by reporting entities	X	X	X
Define and implement the views to be produced	X		X
Establish and implement instructions on how to use reference data (RIAD/CSDB)	X	X	X
Define and implement the aggregation and transformation rules to obtain the views needed to use the different types of information (monetary policy, interest rate, financial, solvency, resolution)	X		X
Define and implement the rules for derogations, to obtain data by country	X		X

²⁷ At the aggregate/cross-framework level.

²⁸ The evolution of data can be better monitored by using aggregated data and checking possible outliers.

²⁹ Although the revision will, in theory, be detected in the collection layer, analysing the changes and revisions in the aggregated data is extremely useful for improving data quality.

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