Communication with reporting agents and lowering the reporting burden – the ESCB approach

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Abstract

In 2006, mathematician Clive Humby coined the phrase "data is the new oil." Today, data fuels business actions, customer experience, new healthcare discoveries and fundamentals in every conceivable industry. Regulators, and among them central banks, naturally participate in this trend. They need to demonstrate that the already huge and growing demand for data is processed in a cost-efficient way for all actors that participate to the data reporting process.

While the new trend involves a new approach in all the steps of the central banks' statistical value chain (data collection, data sharing, data compilation, data dissemination), this paper concentrates on data collection and data sharing. Reporting agents are users that urge us to set efficient reporting processes.

Renewing this part of the process implies to create a new relationship with "reporting agents". From regulated entities, they become partners in the building of the demand for data. This acknowledges their experience in the structure and content of their own information systems as well as their experience in data modelling and data management. This implies that they contribute to develop 'how' a data collection is set up, while authorities remain responsible for defining 'what' shall be reported to fulfil their own tasks and responsibilities. The borderline is thin and a key topic.

Another key aspect is the collaboration between authorities needing the same type of data, to ensure they build their own reporting requirements, while avoiding unnecessary overlaps. These overlaps are all the more costly when defined in slightly different ways for no valuable reasons. Collaboration also involves data sharing between authorities to avoid duplicate reporting. This implies full transparency to reporting agents on the use and sharing of the confidential data they provide to each authority. Communicating with reporting agents on this collaboration is key to manage their expectation and associating them to the process when appropriate.

This paper describes the initiatives the ECB is participating in to shape the future of reporting and ensure collective benefits going forward.

Keywords: Banks, Regulatory reporting, Data sharing, Digitalisation

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Introduction

Regulators from around the world have traditionally collected large amounts of data to perform their tasks and fulfil their responsibilities. The data collections were normally introduced top-down, starting from concrete business needs and user requirements. In most cases, they would be developed in silos, often even within the same institution for the different needs, and would be set out in the form of templates that would be accompanied by rather high-level descriptions of what would need to be reported. Reporting agents were traditionally left with the responsibility of interpreting these instructions, resulting in high burden and suboptimal quality.

Over time, due to evolving user demands driven by higher analytical capabilities both in terms of new econometric techniques and IT developments, data collections have become more complex and detailed, sometimes drawing on instrument- and transaction-level information. The Global Financial Crisis of 2007 gave further impetus to the trend and several authorities around the world moved down this path, also as a response to international activities that identified data gaps which may have helped dealing with the crisis in a more effective way. The data needs for financial stability stood on the border between supervision of individual banks and macro-economic statistics, putting high value on raw granular data that can be combined for different purposes. The Eurosystem contributed to this trend, launching a number of European (as well as national) initiatives that greatly increased the information set available. For instance, granular data collections were set out in the area of holdings of securities (Securities Holdings Statistics) and bank's lending activities (AnaCredit). These complex and instrument-level data collections required larger efforts than before in terms of data models and concrete definitions. For instance, AnaCredit is based on a logical data model that structures the dataset. In addition, both data collections are accompanied by glossaries that offer concrete definitions which seek an alignment with other domains (e.g. statistical and prudential), where possible. Still, no standardised data model and dictionary were set out, and although ESCB requirements are legislated via ECB Regulations, these legal acts only specify what needs to be collected and not how the data collection should take place. In practice, NCBs were left free to collect them at national level through their national collection frameworks, resulting in a high level of heterogeneity as regards the definition of the requirements, the model according to which data are collected, as well as how the data collection is operationalised.

In addition, the data collected on the basis of statistical regulation only marginally took into account supervisory needs. Adapting even more to these diverse needs would imply serving hardly compatible requirements such as reporting at the highest level of consolidation and at the level of the statistical unit at the same time. The industry perceived the risk that such diverging needs could end up in sprouting duplicated requirements if authorities could not collaborate to define which of their needs are similar and which are different. This risk materialised with the numerous ad hoc demands that were made unavoidable by the successive crisis and their different root causes.

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See, for instance, the IMF/FSB G-20 Data Gaps Initiative created by the international statistical community and endorsed by the G-20 Finance Ministers and Central Bank Governors as well as the IMF's International Monetary and Financial Committee.

In summary, banks operating in the euro area have faced a complex reporting landscape, which has become more and more costly as additional data are being collected from national and European authorities and the data collection moves towards a granular approach. The reporting burden has become unstainable, and the industry has promoted principles on which the future paradigm for data reporting from banks should be based: define once, regulate once and report once. European regulators have taken the challenge and are increasingly working together with the industry to operationalise these principles, while also enhancing the analytical value of the data collected for their users. From reporting agents, banks become users of the authorities' data collection process. The knowledge they can provide about the information that underpins data requirements and their needs in terms of standardisation, anticipation and cost efficiency are taken into account in the design of the reporting requirements. Users are not only at the dissemination end of the data value chain; they are also at the collection start.

This paper describes the initiatives that the ECB is participating in, looking first at the ESCB efforts to build cost-effective reporting via the dialogue with the industry on the Banks' Integrated Reporting Dictionary (BIRD) through a granular descriptive system and the new ESCB Integrated Reporting Framework (IReF). In particular, the IReF will be built on an ECB Regulation which is being developed in a close coordination with banks via a series of public consultations to assess cost and benefits of the future demands. These initiatives will then be framed in the wider integration activities that are being developed at European level to integrate, to the extent possible, statistical, prudential and resolution reporting. With this respect, the paper elaborates on the collaboration between the ECB, the European Banking Authority, the Single Resolution Board and the European Commission to set a process for banks' reporting integration and data sharing. Following the demand of the European Council and Parliament in the Capital Requirements Regulation, these authorities have worked together in 2022 on proposals for setting a Joint Bank Reporting Committee and organising the work on a common data dictionary. A particular focus will be made on the participation of the banking industry in this process. For such collaboration to gain full efficiency, the process for data sharing must be made more transparent to reporting agents and reflections on a possibly minor improvement of the legal setting would be considered to ensure full transparency for the reporting agents on the uses of their data.

The ESCB strategy to statistical data reporting

The ESCB is constantly working through its Statistics Committee to make the collection of statistical data more efficient in order to reduce the reporting burden faced by banks. The approach builds on two main pillars:

- cooperation with the banking industry to develop a unified approach to correctly
 and uniformly extract information stored in their internal systems to fulfil their
 reporting requirements, technically through the BIRD and at a higher level
 through regular dialogue meetings; and
- the establishment of the IReF to integrate existing statistical reporting as a first step towards broader integration.

The BIRD

The BIRD is a collaborative initiative between industry, the ECB, several national central banks and other authorities which aims at supporting banks to organise their internal information with the creation of a reporting layer. It provides a harmonised data dictionary and data model that define an input layer which enables banks to comply with the reporting requirements of European legal acts, and transformation rules to derive the required indicators. In other words, it specifies what data can be extracted from the banks' internal IT systems, and how to transform it, to generate the reports required by authorities.

Besides reducing the efforts of banks, the BIRD has the potential to increase the quality of the data reported to authorities by standardising the way output statistics are generated on the basis of the common reporting layer. Banks remain responsible to feed the input layer, but as this is closer to their internal systems as compared to the output required by regulatory reporting, the room for interpretation is reduced.

The BIRD can therefore be seen as a "public good", which is freely available to all interested parties, such as banks, consultancy companies and software vendors that develop application packages for financial reporting. Considering the voluntary nature of BIRD, its adoption is free for the industry as is the use of any of its components.

The BIRD represents the first effort to establish an active collaboration between authorities and the banking industry in a partnership at the European level and as such paved the way for future cooperation. It was structured on the basis of the experiences made in a number of euro area countries – e.g. in Italy with the PUMA initiative and in Austria with AUREP. The initiative is jointly governed by the banking industry and authorities through a Steering Group where all member institutions are represented and which decides on priorities, defines a multi-annual work programme and identifies the resources needed for the planned activities. The Steering Group includes representatives from the ESCB, the EBA and the SRB, commercial banks and other institutions, and the European Banking Federation. The work is supported via the BIRD Expert Group, which agrees on data models & semantics, develops and reviews

BIRD defines the documentation, and the working plans on various activities. The operational tasks are performed by several work streams, which are permanent bodies that accompany the BIRD development. At current stage, two workstreams are active: one on data modelling, ensuring a sound and consistent modelling of the input models and supporting components, and one on prototyping, involving a large number of software vendors and consultancy companies. Temporary substructures (so-called subgroups) are also established to deal with specific subjects regarding the integration of content into the BIRD. At current stage, two subgroups are active, devoted to the integration of IReF (see also the next section) and FINREP & asset encumbrance respectively.

The IReF

The IReF aims at rationalising statistical reporting in the euro area across two dimensions:

• integration across domains, developing a unique reporting framework that integrates the requirements of the existing ECB regulations (i.e. MFI balance sheet items and interest rates statistics, granular data on banks' securities

holdings and loan to legal entities, as well as the input to other datasets like balance of payments and financial accounts); and

• integration across countries, by making the IReF directly applicable in the euro area.

The IReF represents the first necessary step to standardise statistical reporting before realising further standardisation across domains, as advocated by banks. This is achieved by developing a reporting framework that introduces additional granularity and level of detail compared to the existing requirements, ensuring that the data are collected only once for all relevant purposes. The requirements will be defined in a detailed data dictionary and modelled in relational models following state-of-the-art solutions. The new IReF Regulation will try to achieve maximum harmonisation in statistical reporting across the euro area, not only in terms of data dictionary and model, but also in terms of content as well as operational aspects like approach to derogations, revision policy and data exchange format.

The IReF is being developed in strict synergy with the BIRD. While the BIRD will not be mandatory, banks are expected to greatly benefit from the synergies between the two initiatives: on the one side the IReF can rely on the modelling work performed in the BIRD; on the other the BIRD can finally be directly useful as no national adaptations will be needed any longer to link the BIRD input layer to the different national collection systems.

The framework is being developed in accordance to principles promoted by the euro area banking industry to reduce reporting burden, that is DEFINE ONCE, REPORT ONCE, and REGULATE ONCE. As confirmed by the banking industry in a recent public consultation on the project, the IReF will reduce reporting burden in a number of ways:

- the standardisation that will be introduced via the common dictionary and data model. This is expected to be particularly relevant for large and cross-border banks, but smaller banks will also benefit thanks to the reporting via the integration across domains;
- stability in the reporting requirements, as due to the granularity of the IReF new user needs are likely to be already covered in the scheme. Ad hoc requests are also expected to decrease over time;
- the additional granularity also means that the reporting is closer to the operational systems of banks and less transformations will be required from reporting agents when generating their statistical returns.

In addition, the ESCB is also planning to improve the way it collaborates for the performance of the statistics function by applying a fourth principle, PERFORM AS A SYSTEM, which is aimed at defining common business processes, possibly as a precondition for a common data production infrastructure within the ESCB. This initiative is also expected to bring advantages for banks, as de facto it creates an equal level playing field for banks in the euro zone in terms of they will interact with NCBs for the purpose of statistical reporting.

Under the IReF, the ESCB is also planning to develop over time a wider dictionary and data model that would describe also country-specific requirements that will continue being collected at national level under the IReF (e.g. collected by NCBs to perform their statutory tasks). This will mean that the IReF will not be developed in a silo, but a degree of integration with the national systems that will continue to exist.

Banks are being directly involved in the development of the framework. First the procedure that has been developed by the ECB Governing Council, the so-called IReF cost-benefit analysis, foresees a number of public consultations with the banking industry and other stakeholder groups to assess the costs and benefits of the proposed IReF features, in terms of both content and operational aspects. This process will help the Governing Council decide on which requirements to address in the IReF Regulation and how to operationalise the reporting. The banking industry is also actively contributing to investigate how to best address the identified requirements from a modelling and operational perspective, sharing their experience in dealing with the granular information that underpins regulatory requirements. It should be clarified that this does not mean that the industry influences the decision process underlying the setting of regulatory requirements (the what), but rather how to best address these data needs (the how) in a way to keep the reporting burden to a minimum. For instance, how to best cover in the IReF data model the case of multiple protection issues of a loan? How to ensure that the IReF revision policy fulfils the needs of statistical users without setting up a very complex and costly resubmission schedule which may in the end hamper the quality of statistics? Not surprisingly, this collaboration has been organised reusing the experience of the BIRD, by setting up a regular expert group of the BIRD that supports the IReF development. This regular structure is complemented by ad hoc meetings facilitated by the European Banking Federation (EBF), which has proven over time an important partner in the journey.

The IReF is expected to go live in 2027 and is currently at a crucial stage: after a design phase that was launched in December 2021, a non-IT investigation is being launched, aimed at defining the legal and operational framework that the ESCB will follow under the IReF.

The integration of statistical, prudential and resolution reporting

From the perspective of the reporting banks, the ESCB statistical data collection is only a small part of the reporting requirements to authorities. In fact, it covers roughly 20% of the data collected while the remaining majority is for prudential and resolution purposes. Not surprisingly, the banking industry has asked to avoid duplicates or similar reporting across domains, in the interest of managing reporting burden. The pendant of this rationalised reporting is that authorities share data among them. This is all the more obvious as many of these statistical and prudential information are stored in ECB databases since the creation of the Single Supervisory Mechanism (SSM) in 2014.

Collaboration between European authorities

Upon request from the banking industry, the European Parliament and the Council of the European Union mandated the European Banking Authority (EBA) - with the input of the ESCB - to conduct a feasibility study on an integrated reporting system for statistical, prudential and resolution reporting. The mandate was made through article 430c of the Capital Requirements Regulation (CRR 2). It was published in June 2019 following a legislative process which began in 2016. The aim was to assess the necessary steps towards the integration of statistical, prudential and resolution

reporting requirements, with the main priority to reduce the reporting burden. The ESCB input to this study was published in September 2020. The EBA issued in December 2021 a report on the feasibility of an integrated reporting system under article 430c CRR. The three main aspects analysed by the report concerned the development of a common data dictionary and data model, the setup of a common governance and the possible future establishment of a central data collection point.

The ECB, the EBA, the Single Resolution Board (SRB) and the European Commission (EC) jointly moved in 2021 to the next level of collaboration on this topic through the set-up of an Informal Coordination Group (ICG) that would organise the work going forward. The proposal of the EBA feasibility study to keep untouched the regulatory powers of the different authorities was confirmed. The duty of the authorities to collaborate, which is already embedded in their creating regulations, would represent the legal basis for the joint integration work: article 5 of the ESCB Statute for statistical reporting, article 3 of the Single Supervisory Mechanism regulation ECB reporting powers as a supervisor and EBA Founding Regulations². On that basis, the strategy is to begin working together, build a common understanding first and continue providing concrete deliverables, rather than defining new legal constraints for the authorities. Accordingly, the EC preferred not to proceed at this stage with the submission of a legislative proposal for the establishment of a standardised and integrated reporting system. The definition of a central data collection point was also postponed to a second stage, as it can bring benefit only if it builds on a common data dictionary and data model. So far, the ICG has worked on the method to be followed for integration and on a proposal to set a Joint Bank Reporting Committee for its implementation.

As regard the method to be implemented, three steps of integration were clarified, with increasing levels of depth and implications for the affected parties:

- Syntactic integration is the first step, which aims at describing through the same standard (the container) statistical and prudential reporting requirements. Considering that syntactic integration alone does not prevent from redundancies in the reporting, the benefits for the industry are limited to the use of a unique standard rather than several, as is the case today. The Data Point Model (DPM) Refit, developed by the European Banking Authority (EBA) and the European Insurance and Occupational Pensions Authority (EIOPA) is a promising European candidate for that purpose, and the European Central Bank began to work with prudential authorities to define a common governance.
- The second and most resource intensive step is semantic integration. Here definitions are compared by business experts on both sides, mostly through decomposition i.e. by identifying and defining the minimum underlying elements that would enable rebuilding the concepts currently used in the different domains. When possible, definitions are aligned. Semantic integration should give rise to a common data dictionary, or even better a data model that can easily help identify similarities and differences between concepts as well as embed relationships between them. Semantic integration can reduce reporting burden by clarifying the content of reporting to the industry, aligning interpretations when concepts are alike and thus avoiding diverging extractions

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² Regulation (EU) No 1093/2010 of the European Parliament and of the Council of 24 November 2010

- from banks' databases. Semantic integration is a necessary condition for the next step, which is integration of reporting.
- Integration of reporting is the main driver for reduction of reporting burden. It comes when one authority can use the reporting required by another authority for its own purposes, thus avoiding additional demands or permitting the decommissioning of own reporting. It usually comes with the regulatory process. It involves that new reporting requirements are defined taking account of existing reporting in other domains, as well as the common data dictionary. Some practical and legal conditions still need to be clarified, regarding the ability of an authority to obtain high quality data on time from the reporting agents when it is not the regulating body.

The Joint Bank Reporting Committee (JBRC) would be the organisational setting to implement step two and step three. As regard step two, it would foster the development of a common regulatory data dictionary and identify opportunities for semantic integration. As regard step three, it would provide non-binding advice on integration of reporting to the EBA Standing Committee on Reporting, Data analysis and Transparency (SCReDAT) and Resolution Committee (ResCo), the ESCB Statistics Committee, the SSM and national authorities. The JBRC in full composition would involve all authorities issuing bank reporting in the financial domains: the European Commission, the EBA, national competent authorities (NCAs) and the ECB for supervision, SRB and national resolution authorities (NRAs) for resolution, the European Central Bank (ECB) and the NCBs for statistics. Its operational arm, the Steering Committee would involve the European authorities and a limited number of national authorities on a rotational basis. The Steering Committee would prepare and organise the tasks and delivery of the work of the JBRC and steer the work of the expert groups created by the JBRC in full composition.

One important feature relates to the involvement of the industry. In a matter dealing with efficiency and cost of reporting, authorities can benefit from the competencies of the industry regarding the design of reporting (the how), while they need to keep full ability to define the content, in connection with the evolution of international standards (the what). This would be obtained through a Reporting Contact Group (RCG). The RCG would provide technical, non-binding feedback to the JBRC along all the regulatory process related to reporting. It would nominate participants to the Joint Expert Groups and work together with the authorities. In particular, it is important that the industry can contribute to the design of the common data dictionary through its experience in data modelling. The RCG would interact with the JBRC, raise questions, flag issues of relevance for attention, provide written reports and interact in meetings.. RCG members would be appointed by the JBRC on the basis of a public call to stakeholders with expertise on regulatory reporting, in particular reporting banks. With a view of ensuring coordination, experts from existing projects (such as BIRD) will be encouraged to apply.

The interaction with the industry in the design of reporting with the view to reduce its costs can easily be compared to user consultations launched when defining the need for new information. In both cases, it is important to ensure that the needs of the external stakeholders are fulfilled, in an efficient way. However, this journey through the search for efficiency of reporting reveals that individual and possibly competing needs of different users, including authorities and reporting agents, should not be analysed in isolation, but fully as a system. Taking account of the need of reporting agents as users implies that we don't permanently add demands but also search for possible decommissioning and mutualisation of demands.

Data sharing

The pendant of this rationalisation of reporting is the sharing of information between authorities. This seems obvious but must be balanced with the confidentiality of information provided by financial institutions to authorities. Respect of confidentiality is key in particular for market sensitive data. This usually imply that data is shared only with institutions that need to access it to fulfil their mission, and that these missions are in line with the purposes of the initial data collection. This also imply that the receiving institution ensure logical and physical safety of data, through a sound management of access right and physical security rules.

While regulations that allow data sharing between institutions are most of the time sector specific, the need for data sharing is usually cross sectoral, due to the interconnectedness between different financial institutions (banks, insurers, mutual funds, others) and beyond with the non-financial sector. Thus, the current legal framework for data sharing suffers some limitations that need to be addressed. Among these limitations, is the impossibility for central banks under regulation (EC) 223/2009³ to access information collected by the European Statistical System (Eurostat and the National Statistical institutes) because they could use it for nonstatistical purposes such as supervision and implementation of monetary policy. Other limitations may come from the absence in reporting regulation, of clear information of the reporting agents about the different usage of the data they provide, and of the institutions that can access these data. To overcome such legal limitation for Confidential Statistical Information, the review of framework regulation EC 223/2009 and Council Regulation (EC) 2533/984 may be needed. The update of sectorial regulation is clearly an avenue, which can be complemented by the right of authorities to access any data they would have the power to require, thus avoiding double reporting. Finally, general disposition that would make sharing the rule and not the exception would provide more legal safety to authorities in case of breach of confidentiality. This would not remove the current safeguards of need to know, logical and physical protection measures.

Legal impediments are not the only limitations to data sharing. Even when data sharing is allowed, implementation issues may prevent from a timely sharing, that can fulfil the need to know of different authorities. Lengthy approval processes, the cost of building dedicated files in line with the need to know of requiring institutions, the need for powerful IT systems and sharing tools to exchange and process enormous amounts of data are the usually mentioned obstacles. While logically suited to carefully respected need to know, the tailormade bilateral exchange of data between authorities may appear as duplicative and not the most efficient way of sharing data. Therefore, more powerful solutions have been explored. The most obvious one is the publication of data under a single access point. Partially implemented by ESAs for supervisory information, this solution should gain more ambition with the European Single Access Point. In addition to sharing needs, it fulfils the need for transparency to the public. However, it can't be suited for market sensitive data. Another possible solution is the one followed by EMIR for derivative and SFTDS for security financing. In that solution, reporting institutions are required to provide daily information to private trade repositories, that are accessed by the different prudential and statistical

³ OJ L 087 31.3.2009, p. 164

⁴ OJ L 318, 27.11.1998, p.8

authorities. However, the existing framework does not allocate the responsibility for data quality assurance and do not make any provision for the related costs. While continued dialogue with and incentivisation of reporting agents would be needed for high data quality, the current setting squatter responsibilities among authorities with no real power to require corrections.

This is a lesson to be learned, would the authorities concerned by bank reporting engage in building a central data collection point as suggested by article 430c of CRR2 and explored in the EBA feasibility study. As summarised in the ESCB input into the EBA feasibility report under article 430c of the Capital Requirements Regulation (CRR 2), "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."

Different organisational and Information Technology (IT) options are possible. They defer by the degree of centralisation and virtualisation. "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."

Conclusions

Reporting agents are users that urge us to set efficient reporting processes. This paper describes the initiatives the ESCB is participating in to shape the future of reporting and ensure collective benefits going forward. In particular, reference is made to the efforts of the ESCB to engage with the banking industry to establish a close collaboration as a precondition to manage their expectations and associating them to the process when appropriate.

This is perceived as the only possible way forward to prepare for the future challenges that trends such as digitalisation of financial contracts and market standardisation activities will pose to regulatory reporting and beyond (see, for instance, Colangelo et al (2021)). For instance, the availability of standardised digital contracts for financial instruments may enable the automation of the generation of (parts of) the BIRD input layer, which may help further reduce the costs that reporting agents face to fulfil regulatory reporting requirements. More in general, even without BIRD (pr BIRD-like solutions), standardised digital contracts may facilitate the digitalisation of the regulatory reporting functions through so-called 'machine executable regulations', or code versions of their instructions that may be triggered by the reporting agents ('push approach') or directly by the regulator ('pull approach').

An active cooperation between authorities and financial market participants is a necessary condition for such developments. Authorities can actually have a catalyst role in these developments. These opportunities are becoming evident in the policy debate – see for instance the joint initiative between the Bank of England and the

Financial Conduct Authority in the UK, but the global nature of the challenges these trends determine are still widely undervalued.

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