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Session 1: Data needs of the Single Supervisory Mechanism

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Enhancing the synergies between the SSM and statistical reporting¹

1. Introduction

The setting up of a data system supporting the Eurosystem's newly entrusted financial supervision activities will benefit significantly from exploring important synergies with the statistical reporting. In fact, integrating both functions allows reaping large benefits, which positively affect both the data compilers and the reporting entities: the former benefit from the existing infra-structure and the expertise accumulated over time; the latter benefit from a reduced reporting burden through the mitigation of data redundancies and overlapping.

The synergies go beyond the lower burden for data providers, and the benefits in terms of the economies of scale for the data compilers. The possibility of combining micro level datasets will continue to be crucial to the development of analytical tools to assess supervisory and financial stability issues.

Against this background, Section 2 of this note overviews the work done so far at the European level to enhance the synergies between the Single Supervisory Mechanism (SSM) data needs and statistical reporting. Section 3 presents the experience of Banco de Portugal in managing large micro datasets and also its experience in further enhancing the synergies between financial stability assessment and micro data availability. Section 4 concludes.

¹ Contributions to this paper from the Banking Prudential Supervision Department, the Economics and Research Department, the Financial Stability Department and the Statistics Department are gratefully acknowledged.

2. Synergies between the SSM data needs and statistical reporting: overview of work done so far at European level

An important step towards the setting up of the SSM data supporting system is related to the update of the legal provisions ruling the use and exchange of confidential data, which was initially designed having in mind the European System of Central Banks' (ESCB) statistical function. To address these concerns, the Governing Council approved in April 2014, an ECB recommendation for a Council Regulation amending the EC Regulation 2533/98. In a nutshell, the amendments made aimed at creating a legal framework for the transmission and use of confidential statistical information supporting the role of (i) the European Central Bank (ECB) in its capacity as the competent authority in prudential supervision, (ii) the national competent authorities (NCAs) responsible for prudential supervision in the Member States and (iii) the Member States and European Union authorities responsible for the financial system stability. Actually, the need for information sharing across supervisory entities became even more evident with the current economic and financial crisis. In particular, the development of macroprudential supervision, in the aftermath of the crisis, highlighted the crucial role of the transmission of key information across banking, insurance and financial markets supervisors. This is a point that definitely needs more debate and refinements at both euro area and Member States' levels.

As to the infrastructure, new bodies were created to cater for the data needs associated with the SSM. In particular, one of the main tasks of the recently created Working Group on Supervisory Statistics is the collection, production and dissemination of supervisory data harmonised under the European Banking Authority's (EBA) Implementing Technical Standards (ITS) and any other additional supervisory data deemed necessary for the SSM.

Moreover, the Statistics Committee (STC) endorsed the creation of the Task Force on European Reporting Framework (TF ERF), thus recognizing the importance of data requirements harmonization and following a recommendation by the "Groupe de Réflexion" on the integration of statistical and supervisory data. According to its mandate, the task force is responsible for the design of integrated reporting schemes, covering a wide range of different statistics, namely credit institutions balance-sheet statistics, money and interest rates, securities holdings and credit statistics. In doing so,

all issues underlying the creation of a single ERF – legal, conceptual and process related – should be addressed by the task force. The task force should also liaise with the SSM structures in trying to identify potential SSM requirements and propose additional steps, as well as with other groups, such as the Expert Group on Statistical and Banking Data Dictionary. It is foreseen that the implementation of its action list should take place until early 2016.

Efforts of conceptual harmonisation and convergence have also been taken regarding another key source of micro data: Central Credit Registers (CCRs). These databases are a fundamental tool to monitor and manage credit risk, as well as to provide an overview of credit exposures and the level of indebtedness of both resident and non-resident borrowers vis-à-vis national financial intermediaries. In order to get a better overview of the level of indebtedness of the borrowers in an environment of increasing financial integration across Member States (at least until the beginning of the crisis), the ESCB has been exploring, since 2007, the potential statistical use of CCRs². In particular, it sought to understand to which extent their content may be enhanced and adapted to euro area and European Union statistical needs, to alleviate the statistical reporting burden and to increase transparency.

Against this background, an ESCB Task Force on Credit Registers (co-chaired by Banco de Portugal), comprising experts from both the statistical and credit registers' areas, was mandated, in 2012, to investigate three main issues: (1) identifying a core set of information to meet main users' needs and the necessary data attributes and level of harmonisation of definitions/methodologies; (2) considering the governance, legal and confidentiality issues; and (3) exploring the identification of entities and loans and the CCRs' links to other data sources such as micro databases and business registers. Following this avenue, a joint STC/Financial Stability Committee Task Force on Analytical Credit Datasets (also co-chaired by Banco de Portugal) was established in 2013. The overarching aim of this task force is the setting up of a long-term framework for the collection of harmonised granular credit data.

² Data sharing with other countries' CCRs follows the rules of the 2005 Memorandum of Understanding on the exchange of information among CCRs, signed by nine NCBs (AT, BE, CZ, DE, ES, FR, IT, PT, RO), and based on reciprocity.

In sum, a lot of effort has been devoted at the EU level on exploring the synergies between statistics and supervisory data. But these are clearly only the first steps in a long and promising journey.

3. Enhancing the synergies – the experience at Banco de Portugal

The dynamic interaction between the SSM and statistical reporting will be a challenging process. One of the benefits underlying the setting up of the SSM is to constitute a platform to share experiences. In what follows, the note highlights several dimensions in which the synergies between supervisory data needs and statistical reporting can be particularly fruitful, building on the experience from Banco de Portugal.

3.1 Management of micro databases

Banco de Portugal has been gradually developing a data system based on micro data. The approach has been twofold: first, to build and manage highly detailed and granular databases; second, to evolve towards an integrated data infrastructure. The following statistical micro databases should be highlighted in the context of financial supervision and stability:

- (i) The CCR, which contains granular information on credit on a borrower-by-borrower basis and, in some cases, including details which provide loan-by-loan information, with a virtually complete coverage.
- (ii) The Central Balance Sheet Database, which holds accounting and financial information covering almost exhaustively the existing non-financial corporations (NFCs).
- (iii) The Securities Statistics Integrated System (SSIS) database, a security-by-security and investor-by-investor system of both securities holdings and issuances. SSIS complements the CCR data on loans with data on securities and, from a portfolios' perspective, it is a powerful tool to measure exposures of banks and non-banks to specific issuers; additionally, putting together the information contained in SSIS and CCR provides a more complete overview of the exposure and indebtedness of the financial system as a whole.
- (iv) Following a data request in the context of the Economic and Financial Assistance Programme to Portugal and, to better assess current credit conditions of the NFC sector and monetary policy transmission, Banco de Portugal started collecting

individual data on new bank loans and respective interest rates. The database will cover all new operations starting with reference period December 2014 (in its initial stage it was confined to banks with volumes of €50 million or higher).

The joint management of micro databases has many advantages covering the whole of compilation chain, spanning from the data collection processes to the dissemination policy. From an input perspective, these relate mainly to the reduction of the burden imposed on reporting institutions and, from an output perspective, to a wider range of possibilities as regards the level of complexity and detail of statistical products and the additional flexibility in defining and creating different outputs, allowing users to define their own data queries according to their specific needs in a tailor-made way. In this respect, the long-standing aim of Banco de Portugal in having a fully fledged integrated system, encompassing, to the possible extent, granular data of all institutional sectors and financial instruments, which can then serve the purposes of the different internal and external stakeholders, should be highlighted. To properly manage such detailed, comprehensive and complex information, a robust state-of-the-art data system is of the essence, boosting appropriate IT tools and solutions able to respond to the challenges ahead.

3.2 Benefits from combining several sources of micro data: an example

Banco de Portugal has recently taken decisive steps towards further exploring the informational potential of the CCR and balance sheet databases in an ongoing project that aims at creating an in-house credit assessment system (ICAS). This system will provide Banco de Portugal with its own internal credit risk assessment system, thus reducing its dependence on external sources. Against the background of the recent economic and financial crisis and the shortage of assets liable to be used as collateral in monetary policy operations, these systems have recently been gaining importance within the Eurosystem, as can be seen by the increasing number of NCBs that have introduced them. In fact, at the current juncture, a more pressing business case for ICAS stems from monetary policy purposes, for which ICAS will provide an evaluation of debtors' credit notation.

But the benefits of such a system are not exclusive to monetary policy. In fact, there is a broad range of advantages to different business areas, in particular regarding financial supervision and stability. First and foremost, starting with financial supervision, the

credit notations derived from ICAS could be used as a benchmark to gauge those provided by institutions with their own internal notation system. Furthermore, the computation of sectoral default probabilities could also be envisaged, providing a useful input for stress-testing. As to financial stability, the monitoring of developments of the non-financial sector (and the potential building up of imbalances) would benefit from an indicator of NFCs credit risk, which could serve, at least, two purposes: on the one hand, to identify situations of potential financial fragility in a set of companies of a particular economic activity sector; on the other hand, to contribute to assess other risks stemming from the NFCs sector. Other business areas such as economic analysis and statistical functions would also stand to gain from ICAS's outputs.

3.3 Analytical benefit from combining several sources of micro data

Micro data allow exploring the heterogeneity hidden behind aggregate numbers, which refer to the average of the distributions. In fact, given that in many situations the tails of the distribution provide the most important information, it is clear why these data became crucial in the context of the recent crisis.

For instance, micro data allow exploring a wide range of issues that may be relevant to understand the risks underlying banks' balance sheets. As an example, the Portuguese CCR dataset has been merged with accounting information at the firm level (from the Central Balance Sheet Database), to analyze the drivers of credit risk for firms. Further, even though the use of household data is more restricted by legal constraints (notably in what concerns the merge between datasets), there were also several efforts to identify what drives household defaults. This line of research allows identifying emerging risks in banks' portfolios, as well to create modelling tools for the forecasting of default probabilities. The latter are a key input in stress-testing exercises.

In addition, the use of these datasets has helped to improve the knowledge on issues pertaining to access to finance, the financing structure of non-financial firms, the interaction between firms and banks or the link between investment and credit.

3.4 Addressing SSM needs of forward looking information

Within the Economic and Financial Assistance Programme framework, Banco de Portugal has been conducting Funding and Capital Plans (FCPs) exercises. These plans were prepared and submitted to Banco de Portugal on a quarterly basis, by the eight

largest banking groups (and afterwards extended to other institutions, though some under a simplified framework, in a total of 33, covering almost the whole Portuguese banking sector). The FCPs focus on the solvency, liquidity and profitability of the institutions, include detailed historical and prospective accounting and prudential information (overall strategies pursued in a 3-4 year time horizon) and are built over harmonized macro scenarios, guidelines and restrictions, which allow for full consistency among institutions. They are dynamic in the sense that whenever there are relevant developments, additional information or further details on existing information can be added to the request made by Banco de Portugal to banks. Conversely, information that is no longer valid or needed can be removed from the request.

The analysis of the FCPs allows for a deeper understanding of the general strategies of the institutions and of the overall adjusting path of the banking sector, providing a solid basis for challenging the management of the banks in what regards the strategies followed on solvency, liquidity and profitability. It also provides a good way to check the consistency of the expected evolution of key aggregates reported by institutions (credit, deposits) with the macro scenario: inconsistency between the two might lead to a change in the estimates of the institutions, the challenge of the revealed strategies or a review of the assumptions underlying the macroeconomic projections developed at Banco de Portugal. Further, it allows identifying outliers with deviant behaviors from the sector average, which could have systemic implications.

It should be noted that the FCPs exercises were also accompanied by quarterly stress testing exercises, which mimicked the reporting requirements of the FCPs, albeit being obviously adapted to cater for the specificities of stress scenarios.

3.5 Additional data that might be useful for SSM

Since 2011, Banco de Portugal has been developing some specific inspection exercises within the largest eight national financial groups:

- SIP (Special Inspections Programme), which aimed at ensuring that the capital requirements for credit risk were calculated appropriately.
- OIP (On-Site Inspections Programme), that emerged in a particular macroeconomic context with the objective of analysing the risk exposure to specific

sectors (construction and real estate - CRE), and assess the adequacy of the impairment levels set by the banks for these sectors.

- ETTRIC (Transversal Exercise for Credit Portfolio Impairment Review), and ETTRIC2 (Business plan analysis of relevant clients in the banking system) with the aim of ensuring that the impairment levels set by the banks were prudent and calculated according to the best practices.

- AQR (Asset Quality Review), focused on providing guidance to the banks that will be directly supervised by the ECB so that they can provide consistent data for the evaluation of their assets and exposures.

- SAP (Special Assessment Programme), to assess the policies and procedures used by each of the participant institutions to handle distressed credit operations, covering the entire distressed credit life cycle.

Transversal onsite inspections have proven to be a useful tool to deepen the knowledge of specific issues of institutions and the financial system, to assess potential weaknesses and develop a risk mitigation programme accordingly. These inspections have also allowed deepening the consistency and comprehensiveness of the reporting requirements of financial institutions.

Considering the achievements attained with these transversal onsite inspections, one could highlight the following: (i) the improvement of the assessment of potential weaknesses and the definition of actions to avoid stress situations and promote financial stability; (ii) the use of common requirements (data models) and harmonized concepts, allowing for peer comparisons and the identification of outliers; (iii) the identification of gaps in terms of procedures and processes as well as impairment deviations; and (iv) the improvement of the communication between Banco de Portugal and the financial groups involved in these actions and better alignment of expectations from both sides.

Furthermore, the transversal onsite inspections also generate value for supervisory functions in the sense that they contribute to identify: (i) exposures that need a revaluation using alternative methods, as the discounted cash flow method; (ii) specific debtors whose credits' revaluation is needed on a more frequent basis; (iii) outdated valuations of credit collaterals; (iv) sectors of activity where credit risk constitutes a

higher concern (v.g. CRE and pharmaceutical industry); and (v) the need to improve credit institutions' internal impairment models.

Making a parallel with the SSM structure, the Directorate General IV Risk Analysis Division is expected to perform the same type of transversal reviews (sector-wide reviews and identifying trends and emerging risks). However, instead of setting up a data model for each review, it will benefit from the sets of homogeneous, quality assessed data identified in the six modules of the supervisory reporting manual (namely from Module 1: Core supervisory data; Module 3: Granular credit data; and Module 4: Ad-hoc data (e.g. top-down stress testing)).

4. Concluding remarks

In a nutshell, the data needs put forward by the SSM can be regarded by NCAs and the ECB as an opportunity to explore important synergies between supervision and statistical activities, which can be threefold:

- (i) Concerning data collection and information systems, integrating the reports for both functions will generate large benefits, not only for the data compilers but also for the reporting entities. In this context, highly granular data collection schemes are proving to be fundamental.
- (ii) A wide range of analytical studies, which have been crucial for supervision and financial stability, benefit significantly from micro data. These analyses reveal the heterogeneity hidden behind aggregate numbers and allow for a better understanding and monitoring of the financial system, thus providing the supervisor a closer and more comprehensive perspective of the financial sector and of its relations with the other sectors in the economy.
- (iii) The core supervisory data, granular credit data and ad-hoc data sets, collected and treated by statistics, will generate value not only for the direct supervision but also for the horizontal functions of the SSM, including sector-wide reviews and for identifying trends and emerging risks.

To maximize the usefulness of all the new information that will be available under the SSM, further work should focus on its analysis and integration, to ensure that the higher reporting standards are reflected in a sounder framework for banking supervision, thus fostering financial stability at the EU level.