Bringing Together Regulatory and Statistical Reporting:

A Win-Win Strategy

Keynote speech by Mr Pedro Duarte Neves, Vice-Governor of the Banco de Portugal, at the Workshop on "Setting Global Standards for Granular Data: Sharing the Challenge", jointly organised by the ECB DG-S, the Bank of England and the US Office of Financial Research. Frankfurt am Main, 28 March 2017

Dear colleagues, fellow central bankers, ladies and gentlemen, good afternoon.

It is a pleasure for me, and an honour, to have the opportunity to address you on the occasion of this 3rd edition of the workshop on "Setting Global Standards for Granular Data".

I would like to begin by thanking the organisers for giving me the opportunity to take part in this event. On the basis of what I have seen so far, and in anticipation of what is yet to come, it is safe to say that this workshop will indeed provide fruitful discussions between policymakers and market participants and yield valuable inputs for the fulfilment of our different mandates.

I will centre my contribution on the positive synergies arising from bringing together regulatory and statistical reporting.

Financial supervisory activities generally demand the regular exchange of great volumes of information between supervisors and supervised entities. In many cases, these entities are often requested to share additional information on an *ad hoc* basis to cope with the need to clarify specific aspects of their activities. Furthermore, these entities are also requested to report, on a regular basis, information for statistical purposes, which is typically more frequent and with a shorter timeliness.

In setting up a data system supporting the recently created Eurosystem's financial supervision activities, important synergies with the statistical reporting have been recognized. In fact, integrating both functions allows reaping large benefits, which positively affect both the data compilers and the reporting entities: while the former can take advantage of the existing infrastructure and the expertise accumulated over time, the latter can 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 gains 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. It will also foster scientific research in relevant areas.

Still, it should be highlighted that, even though there are important synergies to explore in bringing together such reports, these interactions are far from straightforward and demand a great amount of cooperation between the entities involved. For instance, the reporting standards specified by IASB, EBA or the ECB, are sometimes different in their respective scopes, which emphasizes the need for a progressive harmonization of the underlying concepts.

In my address I will briefly and selectively overview the work that has been done so far at the European level to enhance the interactions between the Single Supervisory Mechanism (SSM) data needs and statistical reporting – with a reference to the extremely important work developed by the EBA - and will proceed with an outline of the experience of *Banco de Portugal* in managing large micro-datasets as well as in enhancing the synergies between financial stability assessment and microdata availability.

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 statistical function of the European System of Central Banks (ESCB).

To address these concerns, the Governing Council approved, in April 2014, a recommendation for a Council Regulation amending Regulation (EC) No. 2533/98 concerning the collection of statistical information by the European Central Bank (ECB). In a nutshell, this initiative aimed at creating a legal framework for the transmission and use of confidential statistical information supporting the role of (i) the European Central Bank, 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 in the aftermath of the recent economic and financial crisis. The ensuing development of macroprudential supervision 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.

The European Banking Authority's Implementing Technical Standards (ITS) provide a harmonized approach to supervisory data collection across Europe, allowing not only sounder comparisons among the different countries, but also a common set of regulations and definitions that pave the way to the single supervisory initiative. In this area, it is important to highlight the impact that the existence of harmonized supervisory reports at the European level – such as FINREP and COREP – had on enabling the setting up of the SSM in such a swift and efficient way.

As for 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 Working Group on Supervisory Statistics, which was created in the wake of the construction of the SSM, is the collection, production and dissemination of supervisory data harmonised under the ITS and any other additional supervisory data deemed necessary for the SSM.

Moreover, following a recommendation by the so-called *Groupe de Réflexion* on the integration of statistical and supervisory data, and in recognition of the importance of data requirements harmonization, the Statistics Committee (STC) endorsed the creation of the Task Force on European Reporting Framework, which – as Mr Turner has already outlined earlier this afternoon – 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. Pursuant of its mandate, this task force has also liaised with other 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 (whose transformational work Mr Ganoulis has just shared with us in the previous panel session).

Efforts of conceptual harmonisation and convergence have also been taken regarding another key source of microdata: the Central Credit Registers (CCRs). These information systems provide central banks, banking supervisory authorities and commercial banks with information regarding the indebtedness of credit institutions, companies, individuals and the public sector and 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 the ESCB has explored, since 2007, the potential statistical use of CCRs. In particular, it sought to understand to which extent their content could 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, and following up on the work of the ESCB Task Force on Credit Registers and of the joint STC / Financial Stability Committee Task Force on Analytical Credit Datasets, the ESCB has been developing the AnaCredit project, which will establish a Eurosystem database comprising loan-by-loan data on credit granted by euro area financial institutions to legal entities. This will create the opportunity to answer some of the data gaps identified in the wake of the financial crisis, by generating clear and detailed information that will greatly assist monetary policy decision-making and help keep the financial system sound and transparent. Moreover, AnaCredit will be based on harmonized concepts and definitions and on a complete coverage of (at least) all euro area Member-States, thus ensuring more comparability and improving, in a significant way, the statistical information available at the Eurosystem level.

To this end, the ESCB has already taken several concrete steps to make this project a reality by September of 2018, of which the most important was arguably the publication, in May of 2016, of the regulation on the collection of granular credit and credit risk data (or, put simply, the AnaCredit Regulation), which has set forth, *inter alia*, the scope, purpose, content and calendar of the future data collection.

Notwithstanding, the development of such a wide project has set several practical and strategic challenges to the ESCB. One of the most notable obstacles that this project has imposed is the development and management of adequate, timely and trustworthy reference data, that is, the information on the "actors" participating in the operations reported, given the high degree of heterogeneity across countries in the way legal entities are identified. To cope with such a daunting challenge, the ESCB decided to extend and upgrade an existing reference database: the Register of Institutions and Affiliates Database (the RIAD).

That said, I am aware of the fact that this chain of events, albeit seemingly long, stays short of being an exhaustive list of the initiatives and actions that have been carried out in this context. It gives us, nevertheless, a general idea of the many efforts that have been devoted at EU level in exploring the synergies between statistics and supervisory data. A lot has certainly been done so far, but we are still taking the first steps in what appears to be a long but exciting journey.

In this sense, the dynamic interaction between supervisory data needs and statistical reporting will be a challenging process. In what follows, I will highlight several dimensions in which this interaction can be particularly fruitful, building on the experience of *Banco de Portugal*.

Banco de Portugal has been gradually developing a data system based on microdata. The approach has been twofold: first, to build and manage highly detailed and granular

databases; second, to evolve towards an integrated data infrastructure. In the context of financial stability and supervision, allow me to highlight the following three statistical micro-databases:

–   **The Central Credit Register**, a database containing 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 – features that have enabled the Bank to compile comprehensive statistics on credit, to assess credit concentration and distribution and to measure overdue loans and overdue loans' ratio, with a view to better understand the risks underlying banks' balance sheets;

–   **The Central Balance Sheet Database**, a data repository that holds accounting and financial information covering almost exhaustively the existing non-financial corporations, giving us a complete view on this sector's assets and liabilities and allowing the Bank to, *inter alia,* monitor and conduct detailed studies on businesses and entrepreneurial dynamics;

–   **The Securities Statistics Integrated System**, a very comprehensive security-by-security and investor-by-investor database on both securities holdings and issuances, which complements the Central Credit Register data on loans with data on securities and, from a portfolios' perspective, constitutes a powerful tool to measure exposures of banks and non-banks to specific issuers. Moreover, the combination of these two datasets provides a more complete overview of the indebtedness of the economy as a whole.

The joint management of micro-databases has many advantages covering the whole statistical 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 extent possible, 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.

An outstanding example of the advantages of this joint management of micro-databases that I would like to share with you is the recently taken steps towards the creation of an in-house credit assessment system (ICAS) at *Banco de Portugal*. This system, which is being fine-tuned as we speak, further explores the informational potential of both the Central Credit Register and the Central Balance Sheet Database and 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, 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 supervision and financial stability.

Starting with supervision, the credit notations derived from ICAS could be used not only as a benchmark to gauge those provided by institutions with their own internal notation systems, but also as a way to assess the quality of individual credit portfolios, while potentially contributing to an early identification of specific risks to which institutions may be exposed to. Furthermore, the analysis of risks and weaknesses of different economic sectors and the Portuguese financial sector's response to them could also be envisaged, thus providing a useful input for stress-testing.

As to financial stability, ICAS's data could also be used as a monitoring tool of the developments of the non-financial sector (and the potential building up of imbalances), not only as a provider of non-financial corporations' credit risk indicators, but also with the expert judgement of the risk analysts. This tool could serve, at least, two purposes: on the one hand, to assess the fragility of specific sectors of the economy, in particular through the economic and financial analysis of the companies that constitute each of the sectors; on the other hand, to contribute to evaluate other risks stemming from the NFCs sector, hence providing additional insights on the main risks and threats to financial stability.

Another good example of the advantages of an integrated management of microdata is the combination of the Portuguese Central Credit Register dataset with accounting information at the firm level (from the Central Balance Sheet Database) for the purpose of analysing the drivers of credit risk for firms.[1] Also, even though the use of household data is more restricted by legal constraints (notably in what concerns the merging of

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[1] For more information on this research, please see Antunes, A. *et al.* "Firm default probabilities revisited". *Banco de Portugal*, April 2016.

these datasets), there have been several efforts to identify what drives household defaults. These lines of research allow the identification of 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.

The integration of these micro-datasets unleashed new possibilities for policy-oriented research. In what I find one particularly rich example, researchers made use of the three micro-datasets that I mentioned before to document the impact of the Eurosystem's Expanded Asset Purchases Programme on lending rates in the non-financial sector.[2] More generally, this expanded information created an ecosystem of intense scientific activity which will no doubt continue to generate a steady flow of high quality research.

Having acknowledged the importance of microdata and their integrated management, I would like to address now a number of noteworthy initiatives taking place at Banco de Portugal that aim at fostering the use and share of this granular information.

Firstly, *Banco de Portugal*, as well as many other national central banks, assigns a high priority to the use of granular data for economic research. In our case, this task is mainly undertaken at the Research Laboratory on Microdata (BPLim), an investigative structure integrated in the Bank's Economics and Research Department, whose chief objective is to support the production of research projects and studies on the Portuguese economy, both by the Bank's economists and authorized external users. Specifically, BPLim aims at, *inter alia*: (i) providing scientific and computational support for microdata-backed research; (ii) promoting training actions in micro-econometrics and panel econometrics; and (iii) disclosing econometric estimation techniques applied to microdata.

Secondly, I want to emphasize the recent launch of the so-called International Network of Exchanging Experiences on Statistical Handling of Granular Data (INEXDA, for short), an international network in the field of microdata. *Banco de Portugal* is one of the first participants in this structure, along with *Banca d'Italia*, *Banque de France*, *Deutsche Bundesbank* and Bank of England. The INEXDA network will provide a basis for exchanging experiences on the statistical handling of granular data which are accessible to external users, and will approach very relevant issues such as the accessibility of data and metadata, techniques for statistical analysis of granular data and data protection, and procedures for output control. Furthermore, INEXDA offers a framework to investigate possibilities to harmonise access procedures and metadata structures, to

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[2] Please see Blattner, L. *et al.* "The effect of quantitative easing on lending conditions", Banco de Portugal Working Paper 8/2016.

develop comparable structures for existing data, and to further foster efficiency of statistical work with granular data.

Let me also mention, as a third illustration, the relevance of the Funding and Capital Plans (FCPs) exercises. These plans - which focus on the solvency, liquidity and profitability of the largest banking groups - 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, thus allowing for full consistency among institutions. On top of its direct relevance for supervision, the analysis of FCPs contribute to the prospective assessment of the intermediate objectives of the macroprudential policy; in addition they can also be used to assess the coherency and sustainability of the projected aggregate trends on credit, funding, financing to the economy, and profitability. As such, this instrument is much suited for the pre-emptive nature of macroprudential policy.

Lastly, let me also draw your attention to ongoing developments on the collection of loan-by-loan information from banks on the value of collateral and households' income. This information allows the calculation of loan-to-value (LTV), loan-to-income (LTI) and debt-to-income (DTI) ratios for household mortgages on a regular basis, both at the origin of the contract and over its life span. This information allows the analysis of the distribution of LTVs and LTIs across loan contracts and relate this information to other relevant characteristics of the contracts (*e.g.*, interest rate spreads, maturities and non-performing loans), therefore improving the monitoring of risks from banks' exposure to mortgages and banks' practices with respect to mortgage credit.

To sum up, the data needs put forward by the supervisory functions 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 microdata. 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. More generally, the

integrated management of microdata enabled an explosion of research activity aimed at better understanding the workings of the financial system and the economy at large;

(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, 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.

To conclude, I would like to wish you all the best for the remaining of this inspiring workshop and indeed for the future. I am confident that you will keep up the excellent work you have been doing so far in this challenging area with the same enthusiasm and indisputable expertise.

Thank you very much.