

Vítor Constâncio: How fit are statistics for use in macro-prudential oversight?

Speech by Mr Vítor Constâncio, Vice-President of the European Central Bank, at the Sixth ECB Statistics Conference, Frankfurt am Main, 17 April 2012.

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1. Introduction

Macro-prudential analysis and oversight are not new tasks for central banks. In broad terms, the objective of macro-prudential analysis and oversight is to identify and prevent systemic risk, so as to minimise the costs that financial instability can impose on the real economy. Pursuing this objective calls for the definition of qualitative and quantitative intermediate goals, which can pose considerable analytical and informational challenges.

Over the past few years, the financial crisis has clearly illustrated just how devastating the materialisation of systemic risk can be for the financial sector and the broader economy. In particular, the financial crisis has demonstrated the need for a coherent and well-articulated macro-prudential policy framework at the national, European and global level. In this respect, it exposed **deficiencies in the information base on which macro-prudential oversight was being conducted**. It is on this latter topic that I will focus my presentation today.

In assessing the question as to *how fit statistics are for use in macro-prudential oversight*, I will outline the data needed for macro-prudential analysis, touching upon the ECB's responsibilities in the field of macro-prudential oversight. I will then move on to reflect on what has been achieved so far, paying particular attention to the macro and micro-dimensions of data requirements. Finally, I will highlight what is missing and mention a number of important ongoing initiatives that could help to overcoming the key challenges in terms data that we still need to deal with.

2. The macro-prudential oversight function and the role of the ECB

Let me start by reflecting on the macro-prudential oversight function. There are three main components in the macro-prudential oversight process. The first concerns the surveillance needed to identify plausible and (systemically) important **sources of risks and vulnerabilities** on the basis of an analysis of the individual and collective strength and robustness of the constituent parts of the financial system – institutions, markets and infrastructures. The second involves the assessment of the **potential costs** and the ability of the financial system to cope with these costs **should some combination of the identified risks and vulnerabilities materialise**. This requires the ability to measure (and model) the potential costs and to calibrate the plausibility and importance of the various risks. The third component is the **possible policy response** that needs to be clearly justified and interlinked with systemic risk assessments. In particular, it should inform policy decisions on the appropriate timing of interventions and the selection of tools.

The role that the ECB and the national central banks of the EU Member States play in contributing to financial stability is set out in the **Treaty on European Union**. In the wording of the Treaty, the ECB is requested to contribute to the smooth conduct of policies pursued by the competent authorities with respect to the prudential supervision of credit institutions and the stability of the financial system. Furthermore, the ECB's financial stability function is also related to its responsibility for **overseeing financial market infrastructures**. The legal framework under which the ECB collects statistical data has in fact recently been extended to expressly recognise its powers to collect data for this purpose.

In 2011 the EU institutional framework was revised to explicitly address both macro and micro-prudential supervision. This led to the establishment of the European System of Financial Supervision, the three new European Supervisory Authorities (ESAs) and the **European Systemic Risk Board (ESRB)**. The **ECB is in charge of providing analytical and statistical support to the ESRB**, notably by collecting and processing information that feeds into discussions within the ESRB.¹

3. What has been achieved so far?

In recognition of an increasingly interconnected financial system, considerable progress is being made in the enhancement and development of new statistics at the euro area, EU and global level.

At the **euro area level**, improvements in ECB statistics are notable with regard to, in particular, the development of enhanced statistics relating to monetary financial institutions (MFIs) and to shadow banking (e.g. securitisation vehicles). The Securities Holdings Statistics can also contribute to providing a better picture of **interconnectedness at the financial system level and for sectors** of the euro area economy. In the same vein, the new Centralised Securities Database of the European System of Central Banks that holds complete and consistent reference information on individual securities is a major step in the direction of a better understanding of the map of cross-exposures through securities holdings.

Further work on enhancing statistical sources and output has been carried out in recent years. A high priority has been given to the development, collection and maintenance of conceptually sound and consistent granular data, and – by exploiting sources of micro data – to monitoring credit exposures, especially those of large financial groups. In addition, efforts have been made to obtain a consistent picture on securitisation and credit risk transfers in general. At the same time, work is being undertaken in cooperation with the European Statistical System (Eurostat and National Statistical Institutes) to improve the availability of macroeconomic data, as well as financial and non-financial accounts statistics.

In the context of the ESRB-related work, data-sharing agreements have been put in place to allow the regular provision by the ESAs of aggregated information to the ECB in support of the ESRB's risk analysis. A number of data sets have already been, or are about to be, made available by the ESAs:

- banking sector data, collected by the **European Banking Authority (EBA)** on a quarterly basis, relate to: supervisory data on solvency, credit risk and asset quality, earnings risk and balance sheet structure (*key risk indicators*), as well as to data on large exposures, broken down by instrument and by sectoral and geographic counterpart, for samples of EU large banking groups;
- insurance sector data collected by the **European Insurance and Occupational Pension Funds Authority (EIOPA)** on an annual basis and, possibly, at a higher frequency relate to aggregate solvency and profit-and-loss data for large EU insurance groups;
- quarterly data provided by the **European Securities Markets Authority (ESMA)** refer to the number of shares admitted to trading in the European Economic Area (EEA), by country and by market, as well as to the list of EEA markets.

¹ Council Regulation (EU) No 1096/2010 of 17 November 2010 conferring specific tasks upon the European Central Bank concerning the functioning of the European Systemic Risk Board (Official Journal of the European Union, L 331, 15.12.2010, pp. 162 ff.).

The ECB, in turn, is in the process of making datasets available to the ESRB and the ESAs that meet their requirements. These cover, in particular, monetary and financial statistics, namely MFI balance sheet data, MFI interest rate statistics, investment funds statistics and statistics on securitisation, as well as consolidated banking data. Information from market data providers, available via the ECB's Market Database, as well as from international institutions such as the Bank for International Settlements (BIS), Eurostat or the International Monetary Fund (IMF), which is part of the datasets collected by the ECB, complements the set of information to support the ESRB's analysis and deliberations.

Cooperation is under way to ensure that the **new legislative initiatives** of the three ESAs incorporate ESRB requirements to the extent that they can be addressed by using supervisory data. Extensive work has already been carried out with the EBA and EIOPA on the new supervisory templates to be introduced in the next few years. Given the need for agility in responding to new data to cover ESRB requests for information, work on procedures to conduct **ad hoc surveys** has been carried out, ensuring that the confidentiality issues are duly resolved.

All this work requires a very close and ongoing cooperation not only within the ESCB, but also with the ESAs and national supervisory authorities, within other collaboration fora and with many other stakeholders, in particular in the industries concerned, as well as with international organisations in the context of the G20 initiatives. This cooperation is ensured through a Contact Group recently appointed by the ESRB Steering Committee at my request, and it has already proved to be very useful. Inter alia, this cooperation will allow longer-term data requirements of the ESRB to be met. In the future, a key issue in connection with minimising the reporting burden of the financial sector is the ability to exchange relevant datasets. Procedures are in place to ensure that confidentiality is protected. At the moment, however, these procedures are unduly cumbersome. Appropriate ways to exchange the data and protect their confidentiality more efficiently will be considered.

Against the background of increasing demand for rigour and quality in systemic risk analysis, it was to be expected that the **ECB's legal powers in the field of statistics** would be activated in order to improve the information base that is available, with a focus on the euro area. To some extent, this has already been undertaken by developing enhanced statistics on MFIs, as well as statistics on securities holdings. In fact, the amendment of Council Regulation 2533/98, governing the ECB's powers to collect statistical information, in 2009 enables the ECB to impose requirements on euro area banks and insurance companies to provide data, **also for financial stability purposes**.

4. Macro and micro-dimensions of data requirements

The use of the prefix "macro" and "micro" in the context of the new institutional environment may create some confusion on the nature of the work to support systemic risk analysis and related data inputs. There is no such thing like a clear separation of macro – or aggregated – data inputs that are used in macro-prudential analysis from micro-data, i.e. data at the level of individual firms, used in micro-prudential analysis. As mentioned before, **a range of important data needed for macro-prudential analysis relate to firm-specific data on financial firms**. Risk assessment tools for example, such as stress tests to assess the relevance of specific risk scenarios, are labelled macro-stress tests (as opposed to the "micro" tests run by banks individually at the request of the regulator). Nevertheless, the usefulness of these tools depends on the quality and detail of the bank-specific data. The relevance of the results for macro-prudential purposes is, of course, to be found in the aggregated figures (the impact on banking sector capital) and their subsequently interplay with the macro-financial environment, lending activities and overall growth.

For stress testing tools, selected supervisory data are important for achieving reliable results. However, for other types of analytical tools and indicators, the use of publicly available information may be sufficient, or even preferable for reasons such as the comparability of

data across financial firms or transparency. In official financial stability publications, for example, it is often considered important that readers and market analysts are able to replicate analyses with information in the public domain.

Generally speaking, while it is essential that supervisory data are well protected, there would be merit in distinguishing between different layers of confidentiality and, thereby, to facilitate that selected supervisory information is made available for macro-prudential analysis. Furthermore, in view of the importance attached to publicly available data, there is a need for this information to be harmonised and provided in a standardised format that is easy to access. As in any other policy field, the higher the **quality of the input data**, the more reliable are the results of analytical work, and thus the policy decisions.

In addition, there is the **definition of data confidentiality**. Taking an extreme view, all information that has not been published could be labelled “confidential”, while the other extreme would be to make everything public. It would be fair to say that the “definition” used in Europe appears to be stricter than that in other jurisdictions. For example, some regulators such as the US Federal Financial Institutions Examinations Council publish selected supervisory information on banking institutions operating in the US market, including on subsidiaries of European banking groups, regularly (on a quarterly basis). Parts of these data are “confidential” in Europe, but this is not so on the other side of the Atlantic. As mentioned earlier, a change in attitude by EU financial regulators would greatly benefit the quality of the risk-monitoring and risk-evaluation work undertaken by macro-prudential bodies. In addition, it would provide a concrete signal of increased transparency to market analysts and financial market participants. In turn, it would help significantly to minimise the reporting burden of the industry.

Let me try to illustrate my point with some examples.

- The **breakdowns of banks’ credit exposures by type of collateral or counterparty sector** (e.g. central government, non-financial institutions, financial institutions, small and medium-sized enterprises (SMEs), residential mortgages or commercial property) are reported to supervisory authorities, but these breakdowns are not part of regular harmonised public financial reporting. Hence, surveillance indicators and assessment exercises based on publicly available credit exposure data may be impaired by the high level of aggregation of the information disclosed. For example, if early warning signals were to point to risks emerging in commercial property or the SME sector, it would be important to assess the relevance of banks’ exposures to this particular asset class in a systematic way. This is not possible if all credit exposures are disclosed in aggregate. Furthermore, the breakdown of credit exposures can be rather important for monitoring banks’ risk profiles in the macro-prudential context. In risk assessment work, the quality of top-down stress testing results may be compromised if the distribution of credit exposures by bank across the main exposure classes needs to be approximated. Likewise, information on credit risk parameters, notably on incurred losses by type of exposure, would need to be consistently disclosed by banks, or to be made available to macro-prudential authorities from supervisory sources. In turn, owing to the importance of such credit exposure data, I much welcome the efforts being undertaken to harmonise the datasets in existing credit registers, subject also to an improved coverage, even if this can only complement extensive supervisory reports.
- The analysis of financial institutions’ **sovereign debt exposures** constitutes another example where (regular) publicly available information has proved to be insufficient to carry out a reliable macro-prudential analysis. On the eruption of the sovereign debt crisis, market participants reacted abruptly to any news concerning those exposures. Analysis on the basis of aggregated data on banks’ consolidated foreign claims vis-à-vis the public sector in several countries proved to be too imprecise. When the individual exposures to sovereign debt of the largest players in the

European banking system were released by the EBA in the context of the stress test exercise in July 2011, spillover effects diminished and markets started to differentiate across the banks. In this case, enhanced transparency proved to be helpful in influencing markets and market participants' behaviour.

- Examples of indicators where **individual bank data would sharpen macro-prudential analysis are numerous**. In the context of the analysis and assessment of **funding vulnerabilities**, reporting on banks' reliance on retail and wholesale funding has ample scope for improvement. Details of banks' deposits, interbank, senior and subordinated debt are poorly disclosed, and the analysis based on loan-to-deposit ratios, currently the best proxy for maturity mismatches, can provide an only incomplete picture of possibly emerging imbalances. A critical area is also that of **asset quality indicators**, the comparability of which is very poor across banks in Europe on account of different definitions of non-performing assets and loan loss provisions. A more granular disclosure of data could allow the construction of more meaningful sets of indicators and prevent misleading comparisons across institutions. On the analysis of **capital adequacy**, uncertainty about the computation of risk-weighted assets is shifting the focus to indicators calculated on the basis of total assets or tangible assets, balance-sheet equity and leverage ratios.

Clearly, in the medium-term, a higher quality of data for financial stability surveillance and assessment may also be achieved through a **better disclosure policy** on the part of financial institutions. Benefits would come also from timely and harmonised reporting.

5. What is missing: remaining data gaps and other challenges confronting macro-prudential analysis

While data gaps can never be closed in full – also because they are a moving target – attempts to reduce these gaps are vital.

With respect to **macro-level data**, efforts to improve the effective coverage of the so-called shadow banking sector – i.e. of credit intermediation, liquidity and maturity transformation activities that take place outside the regulated banking system – need to be continued. Important components of the **shadow banking system** include certain money market funds, structured investment vehicles, off-balance-sheet vehicles (reliant on banks' credit lines) and securities lenders. Although some progress has been made, data gaps remain that render the proper monitoring and assessment of systemic risks arising from securities financing transactions (notable via repurchase agreements and securities lending) unfeasible. Challenges also arise from the activities of the shadow banking system that go beyond a specific group of entities or types of business. Regular information on margins, on other risk management practices and on the use of the various types of collateral, as well as on the maturity and liquidity profiles, is important for assessing the risks associated with securities lending activities from a qualitative and quantitative point of view. Surveys on credit terms in **securities financing and over-the-counter (OTC) derivatives markets**, as have been launched by a number of central banks (around the world) and, soon, by the ECB, are a step in the right direction. The Financial Stability Board (FSB) is also monitoring efforts to improve data on shadow banking and OTC transactions.

Even in the case of the regulated sector, objectives have not yet been met. At present, most efforts relate to harmonising, increasing the frequency, achieving more granularity and extending the coverage of the data for financial sectors in the EU.

Given the important role played by contagion in the recent crisis, data should enable **analyses of the interlinkages** – notably across financial institutions, and between them and the shadow banking system. Information on interlinkages between important players in the financial system, including counterparty credit exposures in different forms, funding exposures of individual financial firms, as well as detailed information on their maturity

mismatches and leverage, is necessary. This is because vulnerabilities can stem, for example, from common exposures in lending activities, from securities transactions, from positions in derivatives markets, from funding relationships, or from settlement and clearing functions. More data on the granularity of balance-sheet exposures and across types of financial instruments are essential inputs for evaluating propagation effects with contagion and spillover models. Recent initiatives in central bank statistics also address interlinkages beyond the sample of large players – for example, by means of so-called “from whom to whom” information on deposits and loans from financial corporations, or through securities holding statistics with a view to also creating “who to whom” data for various sectors of the economy in the Euro Area Accounts. Dedicated ad hoc surveys, for example in the context of the ESRB’s work at an EU-wide level, should also contribute to shedding light on this topic. Sufficiently granular information would facilitate linking the regulated financial sector with the shadow banking sector.

In addition, enhancing information on **financial conglomerates** – banking groups with substantial activities over and beyond the banking sector – would be essential, as non-banking activities may be systemically important. In the case of financial conglomerates, contagion and concentration risks can be exacerbated by the increased intra-group complexity and potential conflicts of interest.

At the **micro-level**, improvements to data for characterising **interconnectedness** are being pushed forward by several initiatives with different objectives and time lines. Let me mention three: (i) the revision of the reporting framework for large exposures by the EBA (for micro-prudential supervision), (ii) the FSB’s common template (limited to a small number of globally systemic institutions) to improve data on global banking interlinkages and (iii) a UK exercise to collect interbank data on recovery and resolution plans (with very detailed instrument and maturity breakdowns). While these initiatives address primarily micro-prudential data needs for the time being, their use for macro-purposes could be envisaged, provided that data confidentiality is preserved and that requests are duly justified. For macro-prudential oversight, the importance of reducing gaps in the data on credit and funding exposures beyond jurisdictions and the sample of global players, appears particularly relevant. As the crisis has illustrated, the structure of bank liabilities and the way in which assets are funded are of utmost importance for understanding maturity mismatches and interlinkages.

Related to funding, data gaps also arise from limited information on the degree of **asset encumbrance** stemming from secured funding, as well as from inadequate data on the levels and characteristics of **innovative sources of funding** used by banks. At present, these elements are essential for analysing fragilities in the funding models of banks established in the EU. Uncertainty about the level of banks’ asset encumbrance is also hampering market participants’ capacity to assess banks’ creditworthiness, thereby reducing the availability and increasing the costs of unsecured funding. Risks to financial stability can also stem from novel sources of funding such as exchange traded funds (ETFs) or liquidity swaps. There is no consistent framework at the EU level for collecting data on the use of these instruments, but attempts to limit information gaps on this topic in the EU are under way, possibly by means of ad hoc surveys under the aegis of the ESRB.

6. Concluding remarks

As mentioned earlier in my remarks today, data challenges would be far more modest, and the need for supervisory information reduced, if the **level of public disclosure**, the quality and the accessibility of, and consistency in, financial public reporting were more satisfactory. This would also benefit market participants at large – notably by reducing uncertainty with respect to counterparties. Further encouragement and guidance by national authorities (in addition to another FSB initiative on disclosure) could be provided to improve the financial reporting of institutions and to enhance the quality of disclosures.

On another front, the establishment of a common legal entity identifier (LEI) that is applied universally should contribute greatly to the quality of macro-prudential analysis. It would, for example, facilitate the aggregation of the single-name counterparty risk at the level of the system and can, for example, help in the identification of the building-up of concentrations towards single counterparties. **Unique identification codes at the EU level** will be valuable for meaningful data aggregations, and would allow the use of this information for macro-prudential purposes. In fact, the demand for micro-prudential datasets for macro-prudential analysis also results from the fact that the form in which existing aggregated data can be disseminated is often of poor quality, is not sufficiently granular and is not suited for analytical purposes.

Ahead of reaping the benefits from the various initiatives that are under way at the global, EU and euro area level to limit data gaps, there is a need for close **cross institutional cooperation** between supervisory authorities and macro-prudential bodies, at the national and supra-national level. This calls for more interaction and data-sharing between the ECB (also when acting on behalf of the ESRB) and the ESAs that have access to supervisory reporting data and can collect ad hoc data more easily upon request. Procedures for the secure transfer of information and appropriate legal provisions need to be in place to safeguard confidentiality.

More broadly, it is important that the pace at which efforts are being made to address current information needs – at the macro- and micro-levels – does not slow down. At the same time, improvements in datasets already in use for macro-prudential analysis should continue to be given priority. This needs to be done in an innovative way, reusing existing information where possible, so as to minimise the reporting burden, whilst serving the increased demands of users. Furthermore, challenges in ensuring that the appropriate statistical basis is available for macro-prudential oversight cannot, by definition, be addressed in full as **data sets are dynamic**, in the same way that the risks they capture evolve over time. Agility in the collection of statistics will therefore continue to be essential so as to accompany innovation in the financial industry and the associated vulnerabilities.