



IFC workshop on *“Combining micro and macro statistical data for financial stability analysis. Experiences, opportunities and challenges”*

Warsaw, Poland, 14-15 December 2015

Reforming regulatory reporting – from templates to cubes¹

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¹ This paper was prepared for the meeting. The views expressed are those of the authors and do not necessarily reflect the views of the BIS or the central banks and other institutions represented at the meeting.

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Introduction

Since many of the world's biggest economies were brought to the brink by the shocking collapse of Lehman Brothers in 2008, the focus has been on addressing the cracks in the global financial architecture. Some of the deepest fissures were caused by gaps in data. Not being able to identify the scale of exposure to Lehman Brothers or its affiliated network, traders panicked and pulled out of positions that may well have been sound. Lehman Brothers wasn't an isolated case. All of a sudden, not being able to identify counterparty risk turned a bad situation into a catastrophic one. The crisis exposed the need for high quality, comparable and timely data on the global financial network. Since then, policymakers, supervisory authorities and standard-setters in Europe have been collaborating to greater harmonise and standardise regulatory reporting for banks and insurance companies. Urgent debate is needed on how the world's financial services industry could be better and less onerously supervised via a smarter approach to regulatory reporting.

In Vienna, ambitious changes to the collection and interrogation of bank data by Austria's central bank, the Oesterreichische Nationalbank (OeNB), are causing quite a stir. The solution adopted by the country's forward-thinking central bank and banking sector represents a new approach to regulatory reporting, leaving formatted templates to the annals of history. The new methodology creates a software platform that bridges the gap between the IT systems of the OeNB and the banks. This allows critical information to be extracted from the sector at will by the central bank without increasing the administrative burden for the data providers. It marks a significant shift in regulatory and statistical reporting, away from the archaic system of form-filling, to a future framework better able to cope with the growing demands of supervisors, including ad hoc requests that fall outside the regulatory reporting cycle.

The template-based approach to regulatory reporting

Regulatory reporting today is still focused on reporting templates, a leftover from the old times of paper-based reporting. Templates can be characterised alongside three main dimensions: Purpose (prudential vs. statistical), level (supranational vs. national) and frequency (regular vs. ad-hoc). Template data is mostly aggregated and validated as such, the structure of the templates is rather sticky and costly to change. Furthermore, lacking cross-time and cross-entity comparability is limiting the potential to analyse template data appropriately.

Still, the adoption of the CRR/CRD-IV package in 2014 earmarked another heavy increase in the number and complexity of templates to be reported for prudential purposes on an European level and regular basis. Since then, all European Economic Area (EEA) banks are committed to report layers upon layers of harmonised reporting templates in a digital language called XBRL. The European Central Bank (ECB), which took over the supervision of significant credit institutions under the Single Supervisory Mechanism (SSM) in November 2014, requires euro area banks to submit additional reporting templates for statistical purposes on a regular basis. The European Banking Authority (EBA) requires significant credit institutions to report ad-hoc reports for a wide array of exercises, of which the stress test is the

most prominent example. On top of the European reporting burden, national competent authorities (NCAs) are adding their very own reporting requirements.

European insurers are also affected by the pan-European template reporting requirements of the EU's insurance and pension's regulator, the European Insurance and Occupational Pensions Authority (EIOPA). EIOPA is currently preparing for the implementation of Pillar 3 of the Solvency II regime, where regulatory reporting is even more complex than the submissions required by the EBA. Asking for large numbers of so-called quantitative reporting templates (QRTs) will set a new benchmark in the volume of data that can be collected using outdated methodologies and technologies. And similar to EBA, EIOPA is conducting its own stress tests. The EIOPA exercise took six months to complete; the regulator issued nine sets of questions, each with their own reporting template.

The different reporting frameworks described are often based on the very same primary data. Dr Johannes Turner, Director, Directorate General of Statistics, OeNB outlined the fact at the Euro Finance Week conference in November 2014: "You take a simple, plain vanilla loan and you have to report it five times," he said. "Different departments within the bank will be required to provide the same data to the regulator at different times".¹ To put it differently. The plain vanilla loan is used for prudential and statistical reports, for supranational and national reports, as well as for regular and ad hoc reports. Is that really efficient?

The cube-based approach to regulatory reporting

So we come to the radical solution being adopted in Austria, where the regulator and the regulated joined forces to turn the tables on the template-driven model and use new technologies to create a new regulatory value chain. The initiative is based on greater harmonisation and integration of data within banks as well as greater integration of the IT systems of the supervisory authority and the supervised entities. The way it works is through a buffer company, called Austrian Reporting Services GmbH (AuRep), which is co-owned by seven of the largest Austrian banking groups, representing 87% of the market. This allows cost-sharing of compliance as well as standardisation of data collection. AuRep runs on a common software platform, which works as the central interface between the banks and the OeNB. Granular bank data sets are captured automatically for supervisors to interrogate in whichever way they want, whilst the banks retain control over their commercially sensitive data, maintaining only the so-called "passive data interface" on the AuRep platform.²

Austria's new framework has the potential to succeed in clearing the information bottleneck. It represents a paradigm shift in banking supervision and statistical data remittance, finally putting an end to the delays associated with requests and

¹ Digitalisation, standardisation and harmonisation of regulatory reporting in Europe: Risk Management Konferenz II, Euro Finance Week, web, conference discussion, Dr Johannes Turner, 18/11/14, programme, PDF, <http://bit.ly/1zlsGmn>.

² Micro-data: the Austrian concept with more granularity as a lesson learned from the financial crises, IFC Bulletin, no. 37, pages 168-70, Session H: Links between Micro and Macro-Data I, Bank for International Settlements, Basel, Switzerland, PDF, Johannes Turner, Erich Hille and Günther Sedlacek, 01/14.

formatting, and allowing greater reconciliation between numbers collected for various purposes. The Austrian model is a data-input approach – each regulated entity prepares its data in a standard format in a series of “data cubes” as prescribed by the national central bank OeNB defined by business type, such as loans, securities or deposits. AuRep acts as a buffer between the supervisor and the banks. The data cubes AuRep receives is in a standard format, so a change in required data needs a single coordinated update to all members. Ad hoc data requests do not require the completion of multiple templates but can be gathered from the granular data uploaded to AuRep, which eventually forms the supervisor’s dataset.³ The advantages of standardised data cubes are obvious. The granular information can be used for multiple purposes, the analysis of disaggregated data is unlimited and simply extensible via new data attributes. Furthermore, harmonised data input layers can deliver consistent and comparable data sets.

The Austrian approach is coming at exactly the right time. With the ECB being tasked with dealing with prudential and statistical data of the euro area banking sector there is a strong need for consistency, innovation and smarter way of approaching regulatory reporting. Dr Johannes Turner, Director of the statistical department at OeNB, said that the Austrian model “ensures more consistent, higher quality data”, whilst “reducing the amount of checking we have to do.”⁴ The big win for the banks is that they are not burdened with the problem of completing templates on many different topics. In a sign that Mario Draghi is aware of the limitations of the template approach, he introduced the seventh ECB Statistics conference in 2014 saying: “Data integration on the side of the ECB and the other authorities only comes at the end of a data-production process, the first input of which is in the internal systems of the banks.”⁵ Ongoing ECB projects can be seen as the counterpart of Draghi's statements. Analytical Credit Datasets (AnaCredit), a granular loan-by-loan reporting requirement, is targeted for 2018. And the Bank's Integrated Reporting Dictionary (B.I.R.D.) is going to take the data input approach to the next level.

Amongst supervisors there seems to be a general acknowledgment that better insight is needed, although there is not yet universal agreement about how this information should be gathered. Patrick Hoedjes, Head of Oversight and Operations at EIOPA, agreed that transparency was “far from where it should be”. He said: “We still don’t know where we would be if another Lehman Brothers happened. That has to be a key objective for 2020, and better data will help towards that.”⁶ For many regulators, the data input approach offers a way to increase consistency and quality of data as well as transparency, which is very much on their post-crisis agenda. Some regulators go even further. In her concluding speech at the ECB Conference on Statistics in 2014, Danièle Nouy, Chair of the Supervisory Board of the SSM, said: “Integration, harmonisation and standardisation are necessary conditions, although

³ Details from Austrian Reporting Services GmbH (AuRep) website under construction: <http://www.aurep.at/>

⁴ Exclusive interview of Johannes Turner with the BearingPoint Institute for the article “Regulatory reporting: are we headed for real-time?”, Bearing Point Institute Report, Issue 6.

⁵ Towards the banking union: opportunities and challenges for statistics, European Central Bank, Frankfurt am Main, Germany, web, speech transcript, Mario Draghi at 7th ECB Statistics Conference, Frankfurt am Main, Germany, 15/10/14.

⁶ Exclusive interview of Patrick Hoedjes with the BearingPoint Institute for the article “Regulatory reporting: are we headed for real-time?”, Bearing Point Institute Report, Issue 6.

not sufficient for achieving a fully satisfactory degree of transparency for the banking system. We also need to properly disseminate and communicate the data. In that sense, creating a common repository ("European Hub") for publicly available data could be a relatively simple task with a very important and positive impact.' Ms Nouy also addressed the central preoccupation of regulators, policymakers and society; to help prevent future financial crises – or at least make them less likely. She highlighted the benefits that data input could bring: "I cannot promise that the ECB can once and for all eliminate the risk of another financial crisis. But the ECB is equipped to minimise this risk, and statistics play a crucial role here. Remember that the inability to correctly measure and analyse the risks associated [with] banking activity was one of the reasons [for] the current financial crisis. Developing and communicating accurate and timely statistics is essential for avoiding the repetition of this failure in the future."⁷

However, for this model to work, buy-in must go beyond the central bankers. Wide cooperation would be needed from the market. Incentives, including liberation from a labour- and time-intensive process of repeated reformatting of data points seem clear. However, discussions with industry bodies in the banking and insurance sector and their comments at the Euro Finance Week conference in 2014 suggest that, whilst momentum for change is gathering, the mood is still cautious. Speaking at the conference, Adam Farkas, Executive Director, European Banking Authority (EBA), said the Austrian model was producing "nice" data, but cautioned that there was still more work to be done before regulators embraced this approach with confidence. "The compromise is there and the incentive is there but there is no detailed, instructive prescription to an individual bank as to how it should report." He added that that the large-scale move to digital to produce granular data had to be driven by the banks. "Market players do not like regulators telling them what IT solutions to use."⁸ Also at the Euro Finance Week conference, Robert Priester, Deputy Chief Executive of the EBF, said that European banks are very interested in tackling the problems of an out-of-date and cumbersome reporting methodology, which "is not working in the current state of IT systems." He suggested that this made the Austrian model worth exploring: "Within the EBF it has produced a very prominent echo," he said, but remained vague about his support. "We all agree on data integration," he added. "The question is how to do that."⁹

Conclusion

It is clear the tectonic plates that have been shifting under the regulatory reporting landscape in Europe have not yet settled. Only twenty years ago, banks and insurance companies were obliged to report once a year, using paper forms with a six-month remittance period. In just a short time, the changes have been enormous. As demands for regulatory reports have risen, templates have increased from a

⁷ Concluding remarks', European Central Bank, Frankfurt am Main, Germany, web, speech transcript, Danièle Nouy at 7th ECB Statistics Conference, Frankfurt am Main, Germany, 15/10/14. Frankfurt am Main, Germany, 15/10/14.

⁸ Digitalisation, standardisation and harmonisation of regulatory reporting in Europe: Risk Management Konferenz II', Euro Finance Week, web, conference discussion, Adam Farkas.

⁹ Digitalisation, standardisation and harmonisation of regulatory reporting in Europe: Risk Management Konferenz II', Euro Finance Week, web, conference discussion, Robert Priester.

handful to hundreds at a time. The document-orientated approach does not satisfy the requirements for relevance at the shorter end, and will hamper the drive for more up-to-date regulatory feeds. Old habits die hard; considerable investments have been poured into the current model over the past few years. Like running a second-hand car, there is a point in time when maintenance costs overtake residual values and the first serious fault can be a signal for buying a brand new vehicle. The current regulatory reporting approach is making it harder to respond effectively with the tight data quality and frequency required to meet the goal of more stringent supervision: to prevent another global financial crisis.

As policymakers and supervisors seek a more timely risk assessment on an entity-by-entity as well as an on systemic level, they turn up the dial on reporting frequency. Time-to-report has been shortened from months to weeks. Against the imperative to build an up-to-date and accurate regulatory picture to assess financial sector risks, a move away from aggregated template data to disaggregated cube data would be more beneficial. Going forward, regulators and industry must agree on a way to reduce the reporting burden for the industry whilst improving the transparency of the data in question. With the ECB now looking into the data input approach to manage the mammoth task of supervising the Eurozone's most important banks, it could be that the regulatory value chain in all member countries is ready to explore new and easier terrain.