Basel III
Principles for effective risk data aggregation and risk reporting

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What is at stake?
In January 2013, the Basel Committee on Banking Supervision published the BCBS 239 paper: ‘Principles for effective risk data aggregation and risk reporting’. The impact of this is significant for Global Systemically Important Banks (G-SIBs), as it defines strong requirements in terms of data management. The objective of this regulation is to ensure that data used for risk calculation and reporting have the appropriate level of quality and that the published risk figures can be trusted. This implies that not complying with these principles would jeopardise the trust of regulators, which could lead to capital add-ons. At this stage, only G-SIBs are concerned, but it is strongly recommended that regulators apply the same rules for local systemically important banks, which may lead to wider scope of application. The timeline for expected implementation is the beginning of 2016.

This new constraint is also an opportunity for banks to improve their operational excellence and increase revenues. Indeed, data quality issues have already been the cause of significant losses through a lack of productivity or incorrect decision making. A significant example of the impact of poor data quality is an online banking provider that lost many customers who opted out of receiving promotional messages from their provider because they had repeatedly received offers for products they already owned.

What are the main requirements?
The requirements are principle-based, and are organised into four categories, the fourth being for the local regulators.

Figure 1: Principles for effective risk data aggregation and risk reporting categories

I. Overarching governance and infrastructure
These principles mainly cover two fundamental aspects of data management: sponsorship and IT infrastructure. The point here is to ensure ownership of the risk data aggregation processes by senior management in order to put in place an appropriate level of controls. This also requires the IT infrastructure to be robust and resilient enough to support risk reporting practices at a time of stress and crisis. For example, risk reporting should be integrated into a bank’s business continuity plan, and banks should establish integrated data taxonomies and architecture across their groups.

II. Risk data aggregation capabilities
These principles mainly aim at putting in place the processes and controls prior to risk calculation, notably data quality monitoring, the procedures applied and the documentation produced (e.g. definition of the single point of truth for all data or maintenance of a cross-functional data dictionary). It considers most aspects of data quality, from accuracy to timeliness. It also recommends adaptability of the processes to enable fast decision making.
III. Risk reporting practices
With these principles, data quality is again emphasised in this category, with reference to the accuracy of the reporting made. It also recommends clarity in this reporting, to make it useful for senior management in decision making. For example, it is required to define requirements and processes to reconcile reports to risk data or that the frequency of reports should be increased during times of stress/crisis: "Some position/exposure information may be needed immediately (intraday) to allow for timely and effective reactions".

IV. Supervisory review, tools and cooperation
Finally, this last category relates to the controls regulators will be expected to implement with regard to the above-mentioned principles. Regulators will also be expected to introduce measures that may even involve the use of capital add-ons. For example, supervisors should test a bank’s capabilities to aggregate data and produce reports in both stress/crisis and steady-state environments, including sudden sharp increases in business volumes. Supervisors should also be able to set limits on banks’ risks or the growth in their activities where deficiencies in risk data aggregation and reporting are assessed as causing significant weaknesses in risk management capabilities.

Where is the market today?
Most G-SIBs are aware of the impact of this regulation and are currently formulating plans to meet the regulatory deadline, which is scheduled for the beginning of 2016. The first internal assessments performed showed no major gaps, except in the area of data quality and monitoring (mainly the principles relating to category II above), where some banks will have to make an effort to reach a more mature level. Most organisations have already started internal initiatives (regulatory reviews) that at least partially cover the necessary requirements. The programme to achieve full compliance will be multi-year and compliance with specific requirements is likely to be phased in. Some banks are indicating that full compliance will extend beyond 2015, particularly where significant investment in technology is required. Subsidiaries of the major players headquartered in Luxembourg will also be impacted by this regulation in terms of the reporting they provide to their group.

How can a data management framework help in leveraging opportunities?
Meeting these requirements and seizing the related opportunities require banks to adopt a comprehensive approach to their data. This approach must address the seven aspects of data management (Figure 2):

Figure 2: Enterprise data management framework

- Focuses on establishing organisational constituencies and a framework of policies, processes, and enabling technologies to ensure that enterprise data is owned and stewarded accurately and consistently to meet business goals.
- Focuses on securing enterprise data assets from any unauthorised infringement. It ensures that appropriate data security and access policies, checks, and controls are monitored.
- Addresses the harmonisation and integrity of enterprise data which is vital for ensuring a consistent and complete view of master data across the enterprise.
- Facilitates enterprise-wide data standardisation throughout its lifecycle (i.e. creation to consumption).
- Identifies and lays out architectural components that provide a framework to facilitate storage, integration, usage, access, and delivery of data assets across the enterprise.
- Manages the collection, preservation, and retirement of enterprise data assets to support application migrations, historical management reporting, and regulatory compliance.
- Establishes a framework and supporting processes and procedures to appropriately diagnose enterprise or LOB data quality issues, remediate them.
The four key aspects are:

1. **Data governance**
   Data governance consists of defining roles and responsibilities in respect of data and their use. More specifically, it defines who is responsible for ensuring that a data set complies with the organisation’s data quality, documentation, architecture, security and retention standards. A key role in the governance structure is the sponsoring executive (Chief Data Officer or Chief Analytics Officer), who will manage the buy-in of people, oversee the cultural shift in the organisation and enable the success of data management projects. We have all heard the story of a risk model "operated through a series of Excel spreadsheets, which had to be completed manually, by a process of copying and pasting data from one spreadsheet to another". This is why proper governance of processes and controls has to be set up.

2. **Master data management**
   One of the main challenges of master data management is the synchronisation of the referential data throughout the organisation. This implies appropriate processes and architecture to enable reconciliation of data from various sources, as well as their diffusion in the bank.

3. **Data quality**
   Data quality enables organisations to make initial assessments of their data, and to improve and monitor the quality of their data on an ongoing basis. In this area, it is crucial to centrally define common quality dimensions and standards to ensure uniform data quality and trust across the data users community. It is also essential to automate the quality assessment process to allow business users to focus on remediation actions rather than performing controls.

4. **Metadata management**
   Risk models, which are sometimes complex, require effective data input. Inefficient data input may lead to the wrong interpretation of results. This can be managed using the data glossary throughout the organisation to have clear and common view on available data and its definition. When embedded in data reporting, metadata management will enable end data consumers to be sure they have the appropriate inputs.

**Conclusion**
Complying with Basel III requirements, and especially BCBS 239, will be a major challenge for G-SIBs, as this requires a high maturity level in terms of data management. Investments to be performed in this domain represents a significant opportunity to leverage requirements and implement a data-oriented organisation to enhance decision making and client service.