

## The Authors



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## Abstract

In January 2013, the Basel Committee on Banking Supervision (“BCBS”) issued a set of Principles to improve banks’ risk management practices, decision-making processes and resolvability (BCBS239). Following these new principles, Avantage Reply published a first Briefing Note, identifying quick wins to enable compliance with the Principles by January 2016.

Drawing on the lessons learned with our clients in Belgium, France, Germany Italy, Luxembourg, the Netherlands, and in the UK, this second Briefing Note, sets out pragmatic solutions to address implementation issues faced by institutions.

We will in turn review:

- The bank’s understanding of the data lifecycle
- The flexibility of the data architecture
- The adequacy of the architecture
- The efficiency of the reporting framework

and discuss how innovative, pragmatic and technology-enabled solutions can make the journey to BCBS 239 compliance less daunting.

## BCBS 239 at a Glance

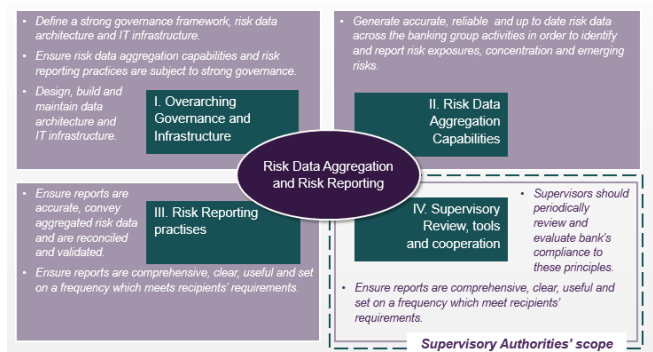
As the Basel Committee has stressed, “one of the most significant lessons learned from the global financial crisis that began in 2007 was that banks’ information technology (“IT”) and data architectures were inadequate to support the broad management of financial risks.”

In response to this identified failing, the Basel Committee introduced a range of requirements to strengthen banks’ risk data aggregation capabilities and risk reporting practices.

Global systemically important banks (G-SIBs) are expected to implement these Principles by January 2016. The BCBS also recommends that national supervisors extend their application to domestic systemically important banks (“D-SIBs”). At Avantage Reply, we believe the Principles will be widely adopted and eventually impact most banks in the European Union (“EU”).

The Principles cover four closely related topics:

- Overarching governance and infrastructure
- Risk data aggregation capabilities
- Risk reporting practices
- Supervisory review, tools and cooperation.



These are then broken down into a total of 14 Principles.

In our observations, applying a pragmatic approach to adopting the Principles can not only significantly reduce implementation costs; it can, in fact, create real value. The Principles can lead to improved decision-making information delivered to senior management in a more timely and cost-efficient manner. In turn, this can improve the decision-making process at the Group level and across legal entities.

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## Key Challenges of BCBS 239

Financial institutions face a significant number of challenges in complying with BCBS 239. To successfully meet requirements, robust governance arrangements must be in place, and data quality risk must be a Board-level issue.

Boards now have to be aware of data quality issues to make correct decisions. As such, BCBS 239 first requires a complete review of data quality, to provide boards with an overview of the quality of reports they receive from their reporting teams.

### **Data Lifecycle**

Due to their scale, banks often face issues with data architecture and its associated roles and responsibilities. Typically, issues related to data gaps or poor quality can be traced to areas of unassigned responsibility, or responsibility that is excessively spread across a team. As a result, analysts on the fields dedicate large portions of their time to highlighting data gaps, tracing data sources, and marking destinations.

Through our observations, we estimate that more than 30% of available time is wasted due to lack of data lineage. To improve this situation, processes, controls, roles and responsibilities, data items, identifiers and reporting must be fully defined and documented. The first step in this exercise is to strengthen data lineage, i.e. to map the lifecycle of the data from the front to the back office, and render it visible and comprehensible to all necessary stakeholders.

### **Flexible Data Architecture**

The Principles state that group structure should not hinder aggregation capabilities within an organisation. It must be possible to aggregate data at the geographical/regional, legal entity, industry, and asset class and business line levels. As a result, ad hoc reporting should not be an issue. Banks need to implement flexible infrastructure and processes to produce timely ad hoc reports – under both stressed and normal conditions.

The need for greater adaptability and flexibility in data aggregation is beyond dispute – however, whether this is realisable is another question. Indeed, banks are products of multiple acquisitions, and comprise a range of diverse business lines. Aggregating their respective data is, therefore, not straightforward, and demands thorough reconciliation, data taxonomy and complete data repositories. Even once this is achieved, timeliness will never be

equal across various business lines, and data will be utilised differently depending on the type reporting required.

As a whole, Boards and senior management teams must be aware of and address any limitations – technical or legal – that compromise risk data aggregation.

Where a bank relies on manual processes and desktop applications, it must have effective mitigations and controls in place. Unfortunately, manual interventions are often required due to the lack of time and flexibility of a bank's architecture. Limiting the number of manual interventions might, therefore, ultimately reduce reporting quality.

### **Architecture Review**

BCBS 239 implementation programs are required to introduce new architecture within a very tight time frame. As a result, the new platforms are not always ready at the time of implementation, and can require even further manual interventions.

The compliance approach to BCBS 239 must be sustainable. However, such narrow implementation time frames could lead to shortcuts being taken that could ultimately result in unsustainable architecture choices.

Resilience to change is also a critical issue. Firms must be able to assess the impact of change on risk data aggregation and reporting capability – including regulatory changes, new products, process changes and IT initiatives. BCBS 239 is only one additional requirement financial institutions face. At the same time, new requirements are added each month and complying with all of them – while implementing a new architecture – is a significant challenge. The architecture must be flexible enough to handle new data and reporting requirements – however, this cannot always be assured.

### **Efficient Reporting Framework**

In our experience, a large amount of time and effort is wasted in the production of reports that are simply unutilised, or do not assist senior management to take appropriate decisions.

A major aspect of BCBS 239 is therefore to review the complete reporting framework and to ensure that teams produce reports that are useful, comprehensive, and meet recipients' requirements.

## Solutions are available but...

A number of solutions are already available on the market – all containing clear benefits and drawbacks. Three main options are currently available: a complete architecture overhaul, establishing a new data warehouse, or, leveraging big data solutions.

Undertaking a complete reshaping of the architecture is clearly disruptive, and involves such a long implementation time that the business and regulatory landscape could be completely different once the project finally delivers. We have also observed that these types of large-scale projects are often funded through budgets drawn from existing applications, which are deprioritised because they are not on the target roadmap. This is fully understandable – however, regulators will meanwhile continue to require more detailed or new types of reports, which the existing applications need to produce under reduced budgets.

Establishing a new data warehouse is often seen as the most straight-forward solution. Since the principles and upcoming regulations state that banks must aggregate flexibly and to greater levels, integrating all available data into a singular data warehouse would appear to provide a suitable answer. Unfortunately, the diverse nature of the data and different reporting requirements make it very difficult to aggregate them together into one data repository. Indeed, one of the main prerequisites of this approach is to align data taxonomy and policies from not only within the institution, but also from the regulator.

A third solution available on the market is big data, which allows an application to retrieve and manipulate data without affecting the core applications. In our opinion, this last solution offers clear benefits – it will provide greater flexibility, and reduced implementation time compared to the first two options. However, this solution also requires strongly aligned taxonomy and policies.

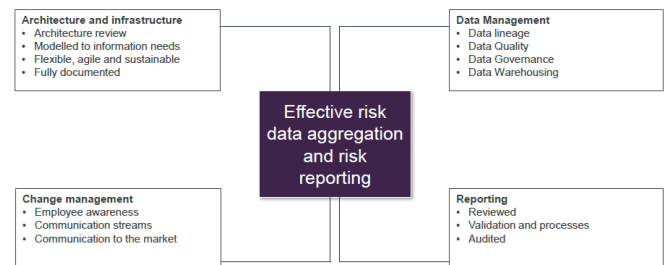
Every solution available on the market will require additional projects to comply with the Principles. Additional projects will therefore include data quality, data lineage, data architecture review, capability testing and reporting framework review as key considerations.

## Pragmatic solutions

For each challenge, a pragmatic solution has to be implemented to ensure that the institution complies with the Principles.

BCBS 239 compliancy programs shall therefore include:

- Data management, including data lineage, data quality projects and change management
- Architecture review and testing
- Reporting



### Data Management

Firstly, in the area of data management, Avantage Reply offers a dedicated module to measure, improve and monitor data quality of data used in the reporting chain. This module also includes a change management dimension, as individuals must now be held accountable for the quality of the data they are responsible of. To facilitate this level of behaviour change, Avantage Reply leverages technology-enabled solutions to foster employee engagement and internal communications. This helps bring to live the exciting transformation journey that the implementation of BCBS 239 can be!

Secondly, improving data lineage and a bank’s knowledge of its own architecture is a major step towards achieving BCBS 239 compliance. As such, we have developed another technology-enabled solution, leveraging Diaku’s platform, Axon™. As stated, the alignment of data taxonomy is a necessary prerequisite of all solutions available on the market. Using Axon™ (or, for some clients, their proprietary tool), we are able to build a ‘complete’ data repository and, drawing on our functional expertise, we can then assist our clients in successfully aligning their data definitions and policies.

## ***Data Architecture and Infrastructure***

To ensure compliance with flexibility and sustainability, a dedicated module is required to assess the robustness and sustainability of the chain. The Principles require the ability to produce ad hoc reports in a timely manner – tests such as the Asset Quality Review have found this demands tremendous effort on behalf of institutions. We expect the regulators to assess compliance with the Principles through new ad hoc requests. As a result of these exercises, response time and quality will be used to ascertain whether a bank's architecture is able to produce these ad hoc requests within a reasonable time frame. Our dedicated BCBS239 team has therefore developed a framework to put the reporting chain under stress and determine whether ad hoc reports can be delivered within these constraints.

## ***Reporting***

Finally, the ultimate result must provide adequate reporting to the right people at the right time. Avantage Reply therefore offers a dedicated module on reporting requirements and tools available to produce timely, high-quality reports. Three key conditions for efficient reporting include:

- **Analytical input.** Efficiently designed reports include more analytical input than data – such analysis should ultimately assist in the decision-making process.
- **Possibilities to 'drill down'.** Risk reports typically include vast information and need to be summarised to provide a comprehensive view of the situation at first glance. However, the reports should also enable the reader to 'drill-down' from the initial information in order to verify and understand the conclusions taken.
- **Validation.** Reports should be validated as part of report creation. This will ensure that the reports are useful, meet requirements, and provide management with sufficient information to take the appropriate conclusions or decisions.

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