EXECUTIVE BRIEFING

Achieving Risk Regulatory Compliance – Overcoming the Data Integration Challenges

Management Summary

Principles for effective risk data aggregation and risk reporting

Risk data aggregation and reporting is a major challenge for many Financial Institutions. In 2013, the Basel Committee on Banking Supervision (BCBS) presented their 'Principles for effective risk data aggregation and risk reporting' for banks (BCBS Principles) Firms designated as global systemically important banks (G-SIBs) are required to implement the Principles in full by 2016. Numerous data integration challenges will need to be overcome in order to fully implement BCBS 239 compliance. This executive briefing document explores a number of the current challenges that must be met to achieve Risk Data Aggregation for BCBS 239 compliance and, considers, other key regulations such as Dodd Frank SR 14, FRTB and the Volker Rule. Each of these regulations put pressure on banks to transform their processes and optimize to remain competitive.

Background

The principles designed to strengthen the banks' risk data aggregation capabilities and internal risk reporting practices following the 2007 crisis, broadly cover four closely related sections overarching governance and infrastructure, risk data aggregation capabilities, risk reporting practices, supervisory review, tools and cooperation, and data architecture.

Following the publishing of the report in 2013, the committee posted its January 2015 progress report (BCBS January 2015 report) citing the following action steps as reported by the G-SIBs with respect to data architecture and IT infrastructure:

- Improving IT infrastructure so that more frequent data is available for certain risk areas (credit risk and liquidity risk)
- Process improvements to infrastructure so as to reduce reliance on manual workarounds and to automate aggregations
- Simplifying current IT architecture and data flows across departments and legal entities to streamline the aggregation process and to enable quick aggregation of risk data during times of stress
- Ensuring that consistent and integrated data taxonomies and dictionaries exist at the group level, and throughout the organisation
- Identifying and defining "data owners" to improve accountability.

In the subsequent December 2015 progress report (BCBS December 2015 report), the committee noted the heightened execution risk of not meeting deadlines and observed that, "Given the complexity of large-scale, ongoing, multi-year IT infrastructure projects and other data-related projects, there is still considerable work ahead."

Other regulatory drivers

BCBS 239 is a key regulatory directive for G-SIBs, however, it is not the only regulatory compliance challenge that banks are grappling with. Some banks have tactically managed their compliance with a number of these regulatory initiatives with some short-term measures, but continue to be burdened with finding a long-term solution. On-going regulatory change in areas such as compliance with the Volker rule, FRTB, BASEL 2.5/3.0, Dodd Frank - SR 14 Living Will for Banks and, MIFID II also continues to present enormous challenges to banks.

Challenges presented to the Basel Committee by banks struggling to adhere to Basel 2.5/3.0, are plentiful and notably include:

- A heavy reliance on manual processes and interventions.

- The inability to consistently and comprehensively document risk data aggregation processes at the group level, including clearly defining material risk across business lines and legal entities.

- Difficulties in aggregating collateral-related data for derivatives transactions has similarly been reported as it presents challenges in aggregating off-balance sheet risk data, due in part, to the non-linearity of the measures and the lack of harmonization across jurisdictions.

- Difficulties in establishing of adequate automated reconciliation processes for risk data aggregation, notably for managerial risk data with regulatory and/or accounting data.

- Legal restrictions in some regions/countries hinders production of granular level of detail on risk data leading to the realization that large scale IT projects are dependent on many smaller dependent IT projects which in turn, increases execution risk.

- A lack of subject matter experts available in order to improve RDARR processes.

Practical challenges

Banks also face a number of practical challenges:

Data architecture that cannot keep pace with the speed of regulatory change

The last few years have seen drastic changes in the compliance and regulatory space. These have been frequent and have hit in quick succession causing banks to struggle in getting their data architecture in a capable state to achieve the necessary levels compliance.

Gap between vision and execution

More often, strategic architecture initiatives remain on paper longer than they should. At the time of execution the authors of the architecture have either moved on to another project or left the company altogether. When execution is not led by the proponents of the architecture, benefits that are meant to accrue in a given span of time, are rarely measured, let alone achieved.

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Executing strategic business initiatives in parallel to regulatory requirements:

While regulatory initiatives are given top priority and allocated budget, many institutions cannot afford to drop business strategic initiatives to remain competitive. With limited technical and monetary resources, institutions understandably find it hard to manage multiple strategic initiatives at any one time, which has a bearing on both strategy and the execution of projects.

Defining single data ownership for each piece of data:

This is a perennial problem in large organizations where multiple units operate in silos. Differing versions of the same data remain in different parts of the same organization and are hard to manage.

Multiple data standard formats:

Each asset class uses different data standards e.g. FIX, FpML, SWIFT, etc. each with their own rule book for every data element. In Addition to this, there are proprietary data formats in XML, COBOL Copybook, Excel, CSV, etc. This multiplicity of data formats makes any aggregation exercise hugely complex.

Multiple regulatory reporting - globally expanding compliance obligations:

Irrespective of their place of business, firms that have financial trading exposure in any geography are now forced to comply with the reporting regulations of that geography. This typically results in the existence of multiple reporting solutions specific to each of those geographies. With the constant management of new releases and patches, keeping track of the changes and updating the architecture is a major IT challenge.

Solution Approach

It is becoming increasingly clear that banks need to develop a high-quality infrastructure rather than resorting to "band-aid" solutions to meet implementation deadlines. A short-term tactical approach may help to overcome the challenges of meeting an immediate deadline, but given the frequency of changes hitting firms, in the long run, the cost of maintaining such a solution will inevitably become 'fractured' and expensive to maintain. It may also lead to heavy financial penalties if any data is found to be wrong.

Choosing the right data integration tool that promotes agility (speed and flexibility), that is easy to use, involving configuration with minimal programming is a key objective that needs to be met by the Institution. The chosen tool must be versatile enough to provide the flexibility of incrementally building of the solution, allow for frequent changes and provide for future additions. The tool must have the ability to manage not only incoming data formats but also manage the various reporting standards mandated by the regulatory agencies. Since compliance is global, the developed solution should be deployable in the diverse IT infrastructure of the global organization. Finally, the tool should improve the timely productivity of the team and save on costs.

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The Volante Solution

Volante offers a comprehensive data integration platform that allows data aggregation, transformation, reporting and reconciliation ultimately delivering streamlined processes in any organization.

Salient features that Volante offers include:

1. Ability to build the compliance solution incrementally so that both short and long-term objectives are met.
2. Ability to integrate multiple data sources especially for the data that is stored in legacy systems. In a recent example we saw one of our customers integrate risk data from multiple legacy sources leveraging the Volante COBOL Copybook plugin (one of many in the growing and maintained Volante library of plugins and transformations).
3. Ability to define data dictionaries and efficient data governance by allowing changes only by authorized personnel.
4. Ready to use 85+ different data standards like FIX, SWIFT, FpML etc. with both syntax and semantic validations.
5. Automated code generation ensuring consistency and quality of code.
6. Automatic documentation creation of the solution that serves as a knowledge base for internal use as well as external compliance requirements.
7. Scalable architecture that can process millions of transactions.
8. Ability to reconcile data.
9. Automated in-built testing suite that ensures the highest level of verification and quality.
10. Infrastructure agnostic platform that can be deployed in multiple geographies across any technology platform.

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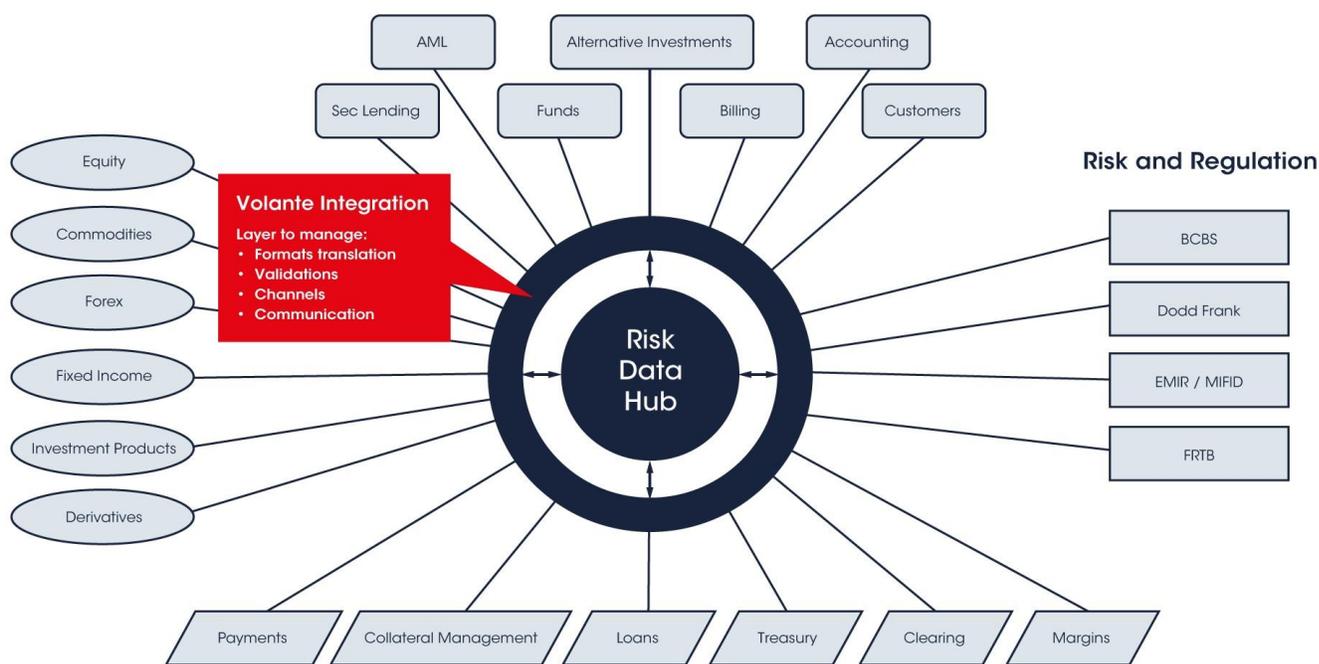
A Volante CASE STUDY

Demonstrating how Volante helped a client overcome the challenges of risk data aggregation

Client: One of the largest US-based banks with multiple lines of business.

Challenge: Comply with BCBS 239 and SR14 Living Will for banks.

Seeking to comply with BCBS 239 requirements for Risk Data Aggregation and SR14, the Bank had to aggregate data from 300+ internal applications. This project hit a roadblock when the IT department struggled with the large number of source systems, multiple data formats and the task of integrating the right data from mainframe systems.

Approach:

Volante carried out an initial proof of concept using **Volante Designer** and COBOL Copybook plugins to demonstrate the integration of data from one of the mainframe applications suggesting the approach of using an integration framework which could facilitate the incremental adding of data formats and data sources.

Results:

With this approach the project (which was running behind schedule) was pulled back within scope and the integration of each new application, which was **typically taking months to complete, was reduced to two weeks**.

This efficiency gained resulting in dramatic savings in time and associated cost was achieved by leveraging Volante Designer's ability to:

- Visually define and map the requirements
- Add associated logic through rules
- Define message and data flows based on logic
- Identify and manage exceptions
- Use the inbuilt test harness (Test Manager) to quickly and thoroughly verify intended functionality
- Automatically generate platform agnostic runtime code for production deployment
- Automatically generate all associated documentation for technical and procedural records of proof