IT implications for Basel III & CRD IV

Following the banking crisis of 2007-2009, the Basel Committee for Banking Supervision (BCBS) initiated a review of its regulatory capital requirements (Basel II framework). Following a series of ‘quick patches’ to amend some of the existing rules, the review culminated in the release of a comprehensive set of reform measures, developed by the Basel Committee on Banking Supervision, to strengthen regulation, supervision and risk management within the banking sector (Basel III framework).
In Europe, this effort has been transposed into three Directives: Capital Requirements Directives II and III for the patches and Capital Requirements Directive IV (CRD IV) for the Basel III rules. The Capital Requirements Regulation (CRR) is the legal act implementing the new Capital Requirements Directive IV.

The CRD IV package will become applicable as of 1 January 2014, even if EU member states have yet to transpose the directive into national law. CRD IV/CRR will require banks to perform a major update to their IT risk landscape, by reinforcing existing principles regarding capital adequacy as well as by introducing new requirements concerning liquidity risk, leverage ratio and risk management in a crisis context. These changes may result in strategy overhaul, process review and IT system impact.

CRD IV/CRR implications for IT architectures
Financial institutions will face higher regulatory compliance costs with the introduction of the CRD IV/CRR rules issued by the regulatory bodies. CRD IV/CRR will impact the entire financial institution, with implications for business processes, data and technology management.

Processes
Current banking processes will need to be modified to be able to handle the new rules and standards. One of the biggest impacts will be the monitoring of intra-day liquidity and the generation of the Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR). Although CRD IV/CRR, will for many banks, just be an extension to the structure put in place for Basel II, the impact on the bank’s strategy and processes should not be underestimated. The implementation of the rules and standards will give management a better insight into their business, leading to new opportunities and adapted business processes.

Data
Most of the regulations under CRD IV/CRR have direct implications for the way the bank handles its data. Under the new rules, banks will need to demonstrate data quality and traceability. Ad hoc regulatory reporting requests will mean that the quality of the underlying data will become highly important for the bank. For instance, prudential regulatory reporting will require much more detailed information to be reported to supervisors, to the extent that inconsistencies between reporting documents could affect the bank’s reputation and credibility (and lead to sanctions and fines). Banks will also need to source data from different functional areas and cross products. This means that banks must have the necessary processes in place to ensure data integrity. For this reason, the BCBS rolled out new principles for effective risk data aggregation and risk reporting which must be met before 2016 and that will impact the data collection and data traceability processes of the legacy Basel II chain.
Technology
One of the biggest impacts from a technological standpoint is the ability to produce integrated reports, with consistent reporting across the company. Solutions should be able to produce the reports required internally and externally (disclosure reports and regulatory reports). In addition, within the context of the Single Supervisory Mechanism (SSM), there are potentially multiple reporting documents to be submitted to both national supervisors and the local central banks.

IT systems should be flexible enough to cope with the impact of the new regulations and modifications to the bank’s changing business strategies. The technology put in place for the generation of the reports should have extensive reconciliation capabilities as the new standards and ratios require close coordination between risk and finance data as they are highly dependent one on another. Solutions will also need to be able to handle the greater detail of real time data to meet the intraday monitoring requirements for the LCR ratio.

Integrated reporting also means that the different in-house and third-party risk calculation applications should be integrated into a single architecture.

Flexible architecture
CRD IV/CRR is one of the steps towards improving the banking sector’s ability to absorb shocks arising from financial and economic stress. However, further steps involving reviews of securitisation, trading books and operational risk can be expected. New recovery and resolution plans providing national authorities with common powers and instruments are currently being developed and implemented. This continuous evolution of rules and standards is creating uncertainty about future processes within the banking industry, increasing short-run economic costs. The changes seen in the banking market as a result of CRD IV/CRR are believed by many to be just the tip of the iceberg. With each new implementation of new regulatory accords, banks will face a degree of change in their market and business models. Financial institutions will need to rely on flexible IT architecture to cope with new regulatory accords and the resulting business changes.

Technical opportunities
Financial institutions need not resign themselves to a future of low profitability due to the implementation costs of regulatory rules and standards. Appropriate data management could help banks to become Basel III compliant and more profitable at the same time. Financial institutions can use the implementation of Basel III as an opportunity to streamline their business by using the data architecture put in place for day-to-day management decision-making.

Basel III does not involve a real risk and compliance revolution. However, being able to perform frequent, timely and comprehensive calculations with fresh and accurate data at the right level of detail will be a challenge. The biggest challenge for most banks will not be devising and implementing the more sophisticated risk methods, but being able to deliver ratios based on accurate data.

Today, many banks have to define strategies to manage their risk, finance and compliance functions. These functions are currently often managed as separate silos where each function has its own set of applications. An architecture based on silos makes it difficult to generate a holistic view upon the bank’s data. Consolidating the risk, finance and compliance functions will speed up the process of becoming compliant and at the same time drive real competitive advantage. An architecture based on centrally managed data will offer complete visibility and control of risk data independent of its source. It will offer traceable, consistent, high quality data which can be shared across departments within the bank.

Banking data have become the key to successful risk, finance and compliance management. The banks with access to accurate and complete data will be those able to competitively differentiate themselves. To fully benefit from these centralised data architectures, banks must implement a scalable solution that evolves with the business and accommodates existing applications.
**How to get there**

Banks must define a target IT architecture by identifying the areas where components must be added or modified to achieve compliance with Basel III rules and standards. Banks will list the necessary actions to reach compliance via a gap analysis between the current situation and the Basel requirements.

In a second phase, the architecture approach will need to be defined. The most suitable approach will depend on the bank’s long-term IT strategy, the stability and performance of the current system, the compliance target date and available resources.

With the IT approach and gap analysis, a make-or-buy decision will determine how the bank will fill the gaps towards compliance. A selection process may determine if a software package provides the right solution.

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<td>• External and internal data sets required by the calculation and reporting</td>
<td>• Collect and transform the data required by the calculation and the reporting</td>
<td>• Calculation of technical provisions and capital requirements for all risk classes (PD, ED, LGD and maturity, standard, VAR, stressed tests and VAR, IRC, BIA, AMA, LCR, NSFR, etc.)</td>
<td>• Internal and external reporting</td>
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<td>• Quality control, correction and validation</td>
<td>• Validation of the reports</td>
<td>• Aggregation and consolidation</td>
<td>• Publication of the external reports to the regulator and the market</td>
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6. Operation and monitoring

7. Data historisation and archiving