



QualityData AdvantageSM for Basel Compliance



Data Quality: The Foundation for Basel

While data quality has been a hot topic in the industry for years, operationalizing data quality—the implementation of a data quality strategy across departmental/organizational boundaries—continues to be a challenge for many FS organizations. To assist clients with this challenge, Capgemini developed QualityData Advantage, a methodical and implementable approach to operationalizing data quality that has proven to be highly successful for compliance and risk management initiatives.

on specific banking practices and operations, including the institution's tolerance/appetite for risk-taking; stress testing; risk reporting; counterparty-risk assessments (monitoring external feeds of Concurrency Control and Recovery or CCR transactions); and capital adequacy computations. To achieve compliance with Basel II and III regulations, formal business management processes and controls are required to govern the financial data subject to these regulations.

Data Quality Components of Basel Compliance

The proliferation of regulations and standards creates challenges for data governance professionals, particularly when compliance with multiple regulations “overlap” the data being managed. Basel regulations focus

Basel III Explained

The Basel Committee on Banking Supervision (BCBS) has published two papers on Basel III. “A global regulatory framework for more resilient banks and banking systems” and “International Framework of Liquidity Risk Measurement, Standards and Monitoring”. These papers discuss the following areas:

- **Capital Structure Changes.** Data quality, consistency, and transparency of the capital base will be raised for Tier 1 capital.
- **Increase Risk Coverage.** Capital framework will be strengthened with incentives to strengthen the risk management of counterparty credit exposures.
- **New Leverage Ratio.** Committee will introduce a leverage ratio as a supplementary measure to the Basel II risk-based framework. It is intended to introduce additional safeguards against model risk and measurement error.

- **Address Procyclicality.** A series of measures will be introduced to promote the build up of capital buffers in good times that can be drawn upon in periods of stress (“Reduce procyclicality and promote countercyclical buffers”).
- **Manage Liquidity Risk.** A global minimum liquidity standard for internationally active banks will be introduced that includes a 30-day liquidity coverage ratio requirement.

The Committee also is reviewing the need for additional capital, liquidity or other supervisory measures to reduce the externalities created by systemically important institutions.

The calculation of Risk Weighted Assets (RWA) and Credit Value Adjustments (CVA) are important components of Basel regulations that directly impact capital adequacy. It is crucial to calculate RWA and CVA in an optimal fashion to allocate sufficient capital for compliance without adversely affecting the bank's profitability.

The obstacles to RWA and CVA optimization in a financial institution can be categorized into the three main areas shown below.

Data Management Issues

Examples include data trapped in silos; inconsistent processing of data between application systems; inadequate data governance; inconsistent data definitions; and sub-standard timeliness and/or accuracy of data.

Inefficient Calculation Processes

Risk systems may not allow for proper analysis; models often generate incorrect results; processes that require manual intervention; outdated risk systems that do not reflect the current regulatory requirements; and no single reporting platform for all exposure and risk types.

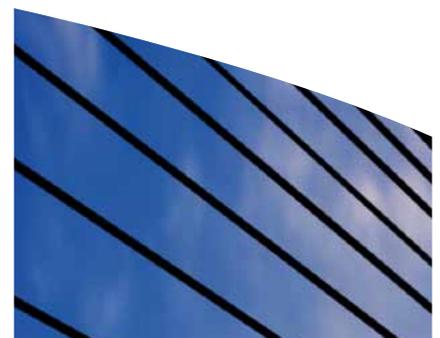
Lack of Risk Focus in Business Outlook

Product and skill mix not aimed at RWA and CVA optimization; preference for unsecured products; lack of effective checks and balances at front office level; risk is considered a middle office, end of day function; and poor collateral management and gaps in legal documentation.

Financial Data Quality will Drive Basel III Compliance: A Reality Check

- Are your risk-adjusted capital requirements a good indication of capital sufficiency?
- Are you confident about the consistency and quality of the data available for Basel II and Basel III reporting?
- Are you confident about the accuracy and consistency of data available for calculations of risk weighted assets?
- Are you able to align the capital requirements with the risk profile enabling innovative products and more competitive pricing?
- Are you concerned about inadequate capital, liquidity risk and your company's perception among rating agencies?
- Are the metrics that you use correctly formulated?
- Are the data models that you use producing the right numbers?
- Are you able to prove your data and get regulatory approval?
- Can you articulate and disclose your data quality and risk controls to regulators and the marketplace?
- Are you satisfied with your Basel II, Basel III and risk management infrastructure?

An integrated, business-technology approach can overcome these obstacles, enabling banks to successfully manage and improve data quality across organization boundaries. The Capgemini QualityData for Basel Compliance offering connects your financial regulatory reform initiative to proven, credit risk, operational risk and market risk models to optimize RWA and CVA for the benefit of the business, as well as for regulatory compliance.



QualityData AdvantageSM for Basel Compliance

10 Capgemini Principles for an Operational Data Quality Program

1.	Treat your data as a corporate asset
2.	Know the meaning of your data
3.	Control your data supply chain
4.	Establish data quality accountabilities and responsibilities
5.	Let data consumers define fit-for-purpose
6.	Consider adjustments as data quality rule breaches
7.	Don't incorporate data quality rules into application logic
8.	Eliminate supply chain complexity wherever possible
9.	Manage and organize your data domain knowledge
10.	Monitor data quality across the entire data supply chain

Truly successful data-quality initiatives take advantage of the mandatory investments in regulatory compliance projects to identify the related risk-management drivers meaningful to both supervisory and executive leadership. Organizations that leverage their compliance projects to establish data quality programs for effective risk management will realize a much greater ROI.

Our approach is to begin with the end in mind. We can help put the pieces together.

It Starts with Our People

Capgemini brings deep domain experience in risk management and compliance with over 400 risk professionals and 1,800 Business Intelligence specialists; a global Risk Management and Compliance Center of Excellence; and successful delivery of over 500 Risk and Compliance projects in the last two years, including more than 100 Basel projects.

In addition, we closely monitor trends in the banking industry, study the business and technology implications of regulatory standards such as Basel III, and work on a diverse portfolio of projects in areas of banking covering retail, corporate, investment banking, capital markets, and private banking.

Our Accelerators and Intellectual Property

Unparalleled investment in intellectual property enables us to accelerate projects and time to market while reducing costs and risks. Our reusable asset library has over 70 risk and compliance proprietary tools and frameworks and covers all critical risk dimensions including stress testing, loss forecasting, economic capital, risk scorecards, RAROC proprietary algorithms and risk data marts. Our proven Sigma MapTM and ERM Maturity Framework allow you to map risk exposure to the balance sheet with a fully integrated Enterprise Risk Dashboard.

Our Tools

A Capital Adequacy Dashboard compares the movement in the RWA and CVA for each counterparty over a timeframe and explains the various factors that have contributed to this movement. Attributing the movements to individual factors helps to identify the cause of the movement. The movement could be a genuine one, or it could be caused by an error or shortfall. Issues identified by the dashboard can be resolved through workflows pre-designed to address them, including:

- Collateral Management Workflow
- Probability of Default (PD) Model Validation Workflow
- Loss Given Default (LGD) Model Validation Workflow

The Capgemini QualityData for Compliance offerings are supported by a comprehensive set of proven methodologies and tools that address data quality issues, including:

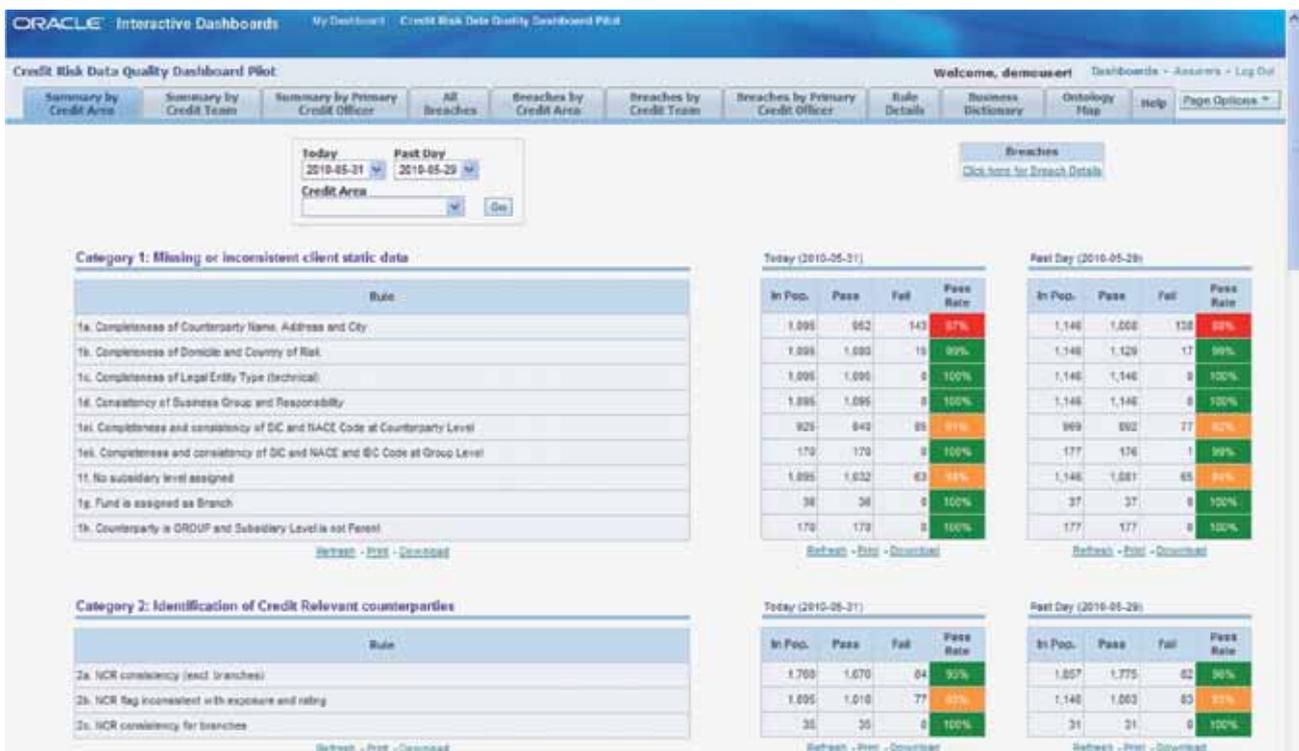
- Calculation Vetting
- Model Validation
- Collateral Management
- Stress Testing
- Exceptions Handling
- Unifying Finance and Risk Hierarchies
- Single Counterparty View
- Business Process and Workflow Management
- Reporting

Beyond Compliance: Quality Data for Better Business

Using proven data quality practices in a Basel compliance context, Capgemini is able to increase the ROI of regulatory reform projects by deploying a data quality programme capable of supporting the organization’s risk management and business strategy.

Working side-by-side with our clients, we craft and implement innovative strategies and transformational roadmaps, augmented by Capgemini’s ten best practices for a Data Quality Program (see chart on previous page), to help operationalize data quality for Basel III to successfully deliver sustainable performance improvement.

Dashboards provide the “user view” into the quality of a data population. Organizing dashboards according to quality measures, process steps and business rules usually provides the best view for subsequent remediation efforts.



QualityData Advantage: A Technology Independent Solution

The QualityData Advantage offerings are based on Capgemini's extensive financial services industry experience working with best practice organizations that wanted to improve data quality to improve the quality of information for decision support and compliance reporting. The benefits: more efficient and reliable data analyses for monitoring operational performance over time and actionable reports tailored to the needs of the organization's decision makers.

Fundamental to the QualityData Advantage approach is acknowledgement that a successful data quality initiative spans business and technology organizations, including their individual operations, processes and applications. Improving—and sustaining the improvement of—data quality requires an ongoing program, not just periodic IT projects that apply data profiling technologies.

Every initiative begins with a first step. With QualityData Advantage, that first step is to assess the quality of your data. Three key criteria are used to determine data quality: appropriateness, completeness and accuracy.

Appropriateness

Data is considered to be appropriate if it is suitable for the intended purpose (e.g. the valuation of technical provisions, setting of assumptions) and relevant to the portfolio of risks being analyzed (i.e. directly relates to the underlying risk drivers).

Completeness

Data is considered to be complete if it allows for the recognition of all the main homogeneous risk groups within the market data or finance information portfolio. Thus, data is considered to be complete if it has sufficient granularity to allow for the identification of trends and the full understanding of the behavior of the underlying risks.

Accuracy

Data is considered to be accurate if it is free from material mistakes, errors and omissions. Most of these will be caused by human error or IT failures. An additional exposure to errors may stem from data and system architecture weaknesses. Accuracy means that a high level of confidence can be placed on the data.

Capgemini's QualityData Advantage professionals subsequently develop a program plan to solve data quality problems in a holistic and practical manner. The result is a solution that integrates seamlessly with the services-oriented, best practices-based, enterprise-information platforms that many FS organizations are

IN PRACTICE: Capgemini has world class experience collaborating with leading global banks to comply with Basel regulations including the related data quality initiatives.

<p>Basel II Risk Management System for a Global Bank</p>	<p>The client’s risk management system comprised of different applications linked together through multiple system interfaces, intricate business logics and technical tools. Capgemini collaborated with the client to formalize the Basel II process documentation approach.</p> <p>The Result: Accelerated Basel II outputs, underlying processes and business rules of their risk management system among the business users</p>
<p>Basel II Compliance Program</p>	<p>Our client sought guidance on the final capital requirements calculation and wanted to implement a RWA calculator.</p> <p>The Result: Achieved improved business processes through the incorporation of key Basel II directives and significantly improved risk management practices.</p>
<p>Basel II Reporting Solution</p>	<p>Our client wanted to develop an IT solution by defining data requirements and implementing a data warehouse and embed the Basel II reporting process with local country units. Capgemini teams partnered with client to setup, manage, and deploy the Basel II program.</p> <p>The Result: Implemented a Basel II Business Intelligence solution with a customized RWA calculator and centralized data warehouse used for data collection, validation, and integration. Increased commitment and knowledge of global and local staff around Basel II across the organization.</p>

beginning to put into place. It provides organizations with the right strategy, a vision, an approach, achievable objectives, and—most importantly—a technology-agnostic execution plan centered around the following themes:

Coordinate & Cooperate

Plan the data quality initiative as a program, not as a project. Processing quality data and information demands an on-going and sustainable business effort that brings together business, technology, finance, and risk-management organizations, spanning all functional areas. Enabling change is therefore a key component for success.

Normalize

Enable information to be processed and presented consistently across the companies of a multi-national financial services entity.

Align

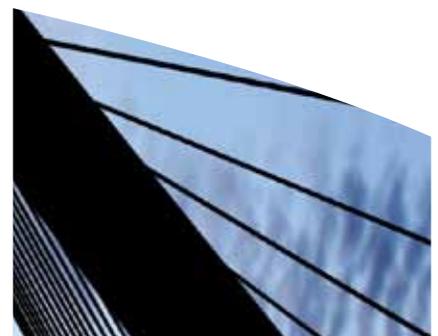
Coordinate the data-management roles of business and technology organizations with respect to the company’s information knowledge base and its value as a corporate asset.

Standardize & Repeat

Establish a blueprint and roadmap for introducing and absorbing a data quality program into the culture of the organization. Step 1 may be a tactical opportunity through which a short term business benefit can be achieved. Step 2 may be leveraging improved data quality for improving the customer experience or financial reporting on an economic capitalized basis, capital attribution and performance metrics such as risk-adjusted return on capital (RAROC).

Enforce & Sustain

Deliver trustworthy business information for business decision making. Enforceability often passes operational boundaries, and this must be taken into account when establishing the program management office (PMO).



Take the QualityData Advantage for Basel III Challenge

A 15 Second Assessment Checklist on Common Data Quality Hurdles

Are you experiencing any of these data challenges?

<input type="checkbox"/>	<i>Disparate terminology.</i> Different organizational units refer to the same data using different terms.
<input type="checkbox"/>	<i>Inconsistent data.</i> Data is duplicated across systems and data records are not always complete.
<input type="checkbox"/>	<i>Lack of visibility on data quality.</i> There is no means for assessing whether data in the system is appropriate, complete and accurate.
<input type="checkbox"/>	<i>Lack of ownership of data issues and no clear accountability for data.</i> Consumer of data is left to figure out the quality of the data and investigate quality issues.
<input type="checkbox"/>	<i>Weak or inconsistent control processes.</i> Data controls are undocumented and inconsistent.

Join us for a complimentary QualityData Advantage Workshop for Basel III to self-assess current data quality strengths and weaknesses in your financial information landscape. During this three hour workshop, we will jointly develop a data quality self-assessment score card that provides you with a reliable business case basis to achieve tangible data quality improvements.

Our goal is to interactively determine the negative impact of measurable data quality weaknesses on your business. How do these shortcomings increase risk, increase costs, decrease revenue, and lower confidence levels in your organization? At the end of this session, you'll have the answers.

To register for this workshop, mail us at businessinfo.fsgbu@capgemini.com.

To learn more about Capgemini's Data Quality Advantage and Business Information Management services, visit us at www.capgemini.com/qualitydata or contact us at businessinfo.fsgbu@capgemini.com.



About Capgemini and the Collaborative Business Experience

Capgemini, one of the world's foremost providers of consulting, technology and outsourcing services, enables its clients to transform and perform through technologies.

Capgemini provides its clients with insights and capabilities that boost their freedom to achieve superior results through a unique way of working, the Collaborative Business Experience™.

The Group relies on its global delivery model called Rightshore®, which aims to get the right balance of the best talent from multiple locations, working as one team to create and deliver the optimum solution for clients.

Present in 40 countries, Capgemini reported 2010 global revenues of EUR 8.7 billion and employs around 112,000 people worldwide.

Capgemini's Global Financial Services Business Unit brings deep industry experience, innovative service offerings and next generation global delivery to serve the financial services industry.

With a network of 18,000 professionals serving over 900 clients worldwide, Capgemini collaborates with leading banks, insurers and capital market companies to deliver business and IT solutions and thought leadership which create tangible value.

For more information please visit www.capgemini.com/financialservices